



**TETRA TECH EC, INC.**

January 5, 2010

Ms. Mary Dyas  
Project Compliance Manager  
Energy Facilities Siting and Environmental Protection Division  
California Energy Commission  
1516 9th Street, MS 2000  
Sacramento, CA 95814

## **DOCKET**

**99-AFC-8C**

DATE JAN 05 2010

RECD. JAN 06 2010

**RE: Blythe Energy Transmission Line Project Request for Staff Approved Project Modification (99-AFC-8C)**

Dear Ms. Dyas:

On behalf of Blythe Energy, please find enclosed for your review a request for a fifth staff-approved project modification (SAPM) for the Blythe Energy Transmission Line Project (99-AFC-8C). This request relates to an opportunity to utilize the Western-owned Buck Boulevard Substation, which would be disconnected from the Western system, to interconnect the Blythe Energy Project to the Blythe Energy Transmission Line without the need for the currently-permitted gas-insulated substation and its associated costs and ground disturbances.

To complete the connection between the Blythe Energy Plant and the BEPTL, the Buck Boulevard Substation needs to be converted from its current 161-kV operating voltage to 230 kV. Thus all proposed work described in the enclosed application relates to this conversion. No changes to, or deletions of, any of the Blythe Energy Project AFC license Conditions of Certification are necessary as a result of the proposed modification.

We appreciate the CEC's review and comments and are prepared to address questions that arise. Please contact me directly at 425.241.0415 or by email at penny.eckert@tetrattech.com. You may also contact Bill Watson, Blythe Energy Construction Manager, at 760.619.5366 or bwatson@blytheenergy.com with any technical questions.

Best regards,  
TETRA TECH, INC.

Penny Jennings Eckert, Ph.D.  
Senior Project Manager



# **BLYTHE ENERGY PROJECT**

## **Request for Staff-Approved Project Modifications (99-AFC-8C)**

### **Blythe Energy Project Transmission Line Minor Modifications to the Blythe Plant Connection to the Generation Intertie**

Submitted to:

**California Energy Commission  
Sacramento, California**

Prepared by:

**Blythe Energy, LLC**  
and



**TETRA TECH EC, INC.**

**December 2009**

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**Acronyms and Abbreviations**

APE	Area of Potential Effects
B-EM	Blythe Eagle Mountain
BEP	Blythe Energy Project
BEPTL	Blythe Energy Project Transmission Line
BLM	Bureau of Land Management
Buck Substation	Buck Boulevard Substation
CAISO	California Independent System Operator
CCR	California Code of Regulations
CEC	California Energy Commission
CTG	Combustion Turbine Generator
DCS	Distribution Control System
FONSI	Finding of No Significant Impact
GIS	gas-insulated substation
I-10	Interstate 10
kV	kilovolt
LORS	laws, ordinances, regulations and standards
MW	megawatt
NEPA	National Environmental Policy Act
PERP	Portable Equipment Registration Program
SAPM	staff-approved project modification
SCE	Southern California Edison Company
SPCC	Spill Prevention, Containment, and Countermeasures
STG	Steam Turbine Generator
SWPP	Stormwater Pollution Prevention
Western	Western Area Power Administration

## **1 Introduction**

Blythe Energy, LLC (Blythe Energy as the petitioner) hereby requests staff approval of insignificant project modifications to the approved Blythe Energy Project (Project or BEP). In accordance with Section 1769(a)(2) of the California Energy Commission (CEC) Siting Regulations, the proposed changes do not have the potential to have a significant effect on the environment and will not result in the change or deletion of a condition adopted by the CEC or cause the Project to not comply with applicable laws, ordinances, regulations, and standards (LORS).

Blythe Energy is the owner of the BEP, which is a 520-megawatt (MW) combined cycle natural gas-fired electric energy generating facility, approved by the CEC under docket 99-AFC-8 (CEC 2001). The BEP is located in the city of Blythe, California, just north of Interstate 10 (I-10), approximately 7 miles west of the California and Arizona border. The Project is currently connected to the Buck Boulevard Substation (Buck Substation) owned by the Western Area Power Administration (Western), which, in turn, is connected to the Blythe Substation and the Southern California Edison Company (SCE) Blythe Eagle Mountain (B-EM) transmission system. This interconnection is currently made at 161 kilovolts (kV).

In a CEC Notice of Decision dated October 11, 2006, CEC approved an amendment to the BEP license (99-AFC-8C) for the construction and operation of a 230-kV generation intertie transmission line (Blythe Energy Project Transmission Line [BEPTL]) to allow for delivery of the full BEP electrical output to the California Independent System Operator (CAISO)-controlled electrical transmission system (CEC 2006a). Western and the Bureau of Land Management (BLM) served as co-lead federal agencies for review of the Blythe Energy petition pursuant to the National Environmental Policy Act (NEPA) and have issued a Finding of No Significant Impact (FONSI) for the license amendment (Western and BLM 2007).

Blythe Energy requested approval of an insignificant project change in 2007. The change consisted of a modified interconnection from Buck Substation to the new BEP switchyard through the use of a gas-insulated substation (GIS), route realignment from milepost 0.0 to 3.0, and minor route realignment from milepost 6.5 to 62.1. The CEC approved these changes on July 17, 2007, and Western notified the BLM of Western's withdrawal from the project in a letter dated February 4, 2008. BLM is now the sole lead federal agency for the purposes of NEPA and for all consultations.

In July 2008, Blythe Energy requested a second insignificant project change that included a request for minor realignment of several structures, the adjustment of the eastern and western laydown yards, the addition of a laydown area near the Ford Dry Lake exit, and conductor reconfiguration. The CEC and the BLM approved the second insignificant change on September 25, 2008.

In November 2008, Blythe Energy requested a third insignificant project change that included a request for support modifications for 17 structures (adding guy wires); the expansion of the Desert Center laydown; communications system changes in the SCE system at the BEP, at the California

Capacitor Station near the Red Cloud Road exit, and at the Julian Hinds Substation; and a minor additional expansion at the Julian Hinds Substation. The CEC and the BLM approved the third insignificant change on January 27, 2009.

In June 2009, Blythe Energy requested a fourth staff-approved project modification (SAPM) that covered needed changes in the SCE B-EM transmission line to accommodate the BEPTL crossings and needed changes for replacement of up to 32 single-circuit poles with double-circuit-ready poles to allow for electricity from Project Genesis (if approved) to reach SCE's to-be-constructed Colorado River Substation without any additional ground disturbance in the segment of the generation intertie line parallel to the BEP transmission line. The CEC and BLM approved the fourth SAPM on July 14, 2009.

Blythe Energy is now requesting a fifth SAPM that will make the Western Buck Boulevard Substation the eastern terminus of the 67-mile 230-kV BEPTL which is being constructed from the Blythe Energy Plant to SCE's Julian Hinds substation. This SAPM will allow for a direct connection between the Blythe Energy Plant and the 230-kV BEPTL and will substantially reduce ground-disturbing activities within the plant grounds that would have been needed for the installation of the gas-insulated substation as approved in 2007 under the first project modification. To complete the connection between the Blythe Energy Plant and the BEPTL, the Buck Substation needs to be converted from its current 161-kV operating voltage to 230 kV.

This request for staff approval of a minor project modification evaluates the proposed actions from the California Environmental Quality Act perspective. In accordance with Section 1769 of the CEC Siting Regulations (California Code of Regulations [CCR] Title 20, Section 1769, Post Certification Amendments and Changes), this request for approval of insignificant project changes present a description of the proposed modifications, the necessity for the proposed modifications, and an analysis of potential impacts on the environment, nearby property owners, and the general public. This petition also outlines the Project's continued ability to comply with applicable LORS during construction and upon placing the modifications in service, and demonstrates that the proposed modifications will not result in significant environmental impacts. No changes to, or deletions of, any of the Conditions of Certification are necessary as a result of the proposed modifications.

The information necessary to fulfill the requirements of Section 1769 is provided in the sections that follow this introduction:

2. Description, Necessity, and New Information for the Proposed Project Changes
3. Environmental Analysis of Proposed Project Changes
4. Ability to Comply with LORS
5. Potential Effects on the Public
6. List of Property Owners
7. Potential Effects on Property Owners
8. References Cited

## **2 Description, Necessity, and New Information for the Proposed Project Changes**

The Blythe Energy Plant's Buck Substation contains the breakers, switches, bus, and metering apparatus needed to connect the plant to the Western operating grid at 161 kV and is shown in Appendix A. The Plant has three generating units: two gas fired units, Combustion Turbine Generator 1 (CTG 1) and CTG2; and one steam unit, Steam Turbine Generator 1 (STG1). The generating units generate power at 16 kV. Between the generators and the Buck Substation, the voltage is transformed with step-up transformers from 16 kV to 161 kV where it connects to the Western operating grid.

The Blythe Energy Plant will be disconnected from the Western operating grid and then connected to the SCE operating grid in June 2010. CAISO will oversee the operations between the Blythe Energy Plant and SCE. CAISO's function is to operate most of California's high-voltage wholesale power grid by balancing the demand for electricity by consumers with an equal supply of megawatts generated by the plants connected to the operating grid. CAISO is the impartial link between power plants (Blythe Energy Plant) and the utility (SCE). To allow CAISO to provide this service, communications equipment approved under the third project modification on January 27, 2009, will be installed in the Buck Substation to provide the required data from the Plant to CAISO's facility.

A 67-mile, 230-kV generation intertie transmission line, scheduled for completion in February 2010, is being constructed to connect the Plant to SCE's Julian Hinds Substation. To complete the connection, and provide service into SCE's system at their Julian Hinds Substation, the Buck Substation will be converted from its current 161-kV operating voltage to 230 kV. In anticipation of future upgrades to the Western transmission system, the Buck Substation was built in 2000 with the phase spacing, insulation levels, and equipment ratings to operate at 230 kV, thus simplifying this conversion.

The step-up transformers that transform the voltage generated by the Blythe Energy Plant at 16 kV to 161 kV and connect to the Buck Substation are dual-rated transformers. Each of the three step-up transformers can be converted from 161 kV to 230 kV. This conversion is completed by changing connections internal to the transformer.

### **2.1 Construction**

The following describes the steps necessary to finalize the construction and conversion of the Buck Substation from its present connection with the Western system to a direct connection to the SCE system through the BEPTL. Appendix B includes drawings showing the general configuration of the Buck Substation before and after the proposed change. The work will be performed during two plant outages. The first plant outage is scheduled to begin February 27, 2010, lasting through April 5, 2010, to conduct an upgrade to their DCS system. The second will be in June 2010 and will last up to 25 days.

The Siting Regulations require a discussion of the necessity for the proposed revision to the BEP and whether the modification is based on information known by the petitioner during the certification proceeding (Title 20, CCR, Sections 1769 [a][1][B], and [C]). There was no information regarding the necessity for these changes known by the petitioner during the certification proceeding. Details by change component follow.

## **2.1.1 Construction Details**

### **Structure 1 Interconnection**

Installation of Transmission Structure #1 has been approved in a Level 3 project variance (December 3, 2009). Dress-out and stringing of Transmission Structure #1 will occur during the second plant outage (see Switching Needed Inside Buck Substation below). Conductors will be connected in sequence from Transmission Structure #2 to Transmission Structure #1 to the bus.

### **Switching the Connection**

The Buck Substation Switching Diagram (drawing BKB 0001) in Appendix C shows the station's current switching arrangement. The two outages needed for conversion of the BEP connection from the Western to the SCE system are summarized in Table 2-1.

#### First Outage

During the first plant outage, steps will be initiated to convert the Buck Substation from 161 kV to 230 kV. At this time, all three generating units will be out of service and no power will be supplied to the Western grid. During this period, auxiliary power to the Plant will be supplied by the Western grid to maintain lights and electrical service in the plant needed to perform the scheduled work (see Construction Access and Other Requirements below for additional information).

**Table 2-1. Summary of Outages Needed for Conversion of the BEP connection.**

Step	Transformer Shut Down	Transformers Functioning		BEP Powered By:	Other Activities
		name	voltage		
Outage #1 (Feb 27 - April 5, 2010)					
	CTG1, CTG2, STG1	none		161-kV backfeed from Western grid (38 days)	install communication system relay panel modification
Outage #2 (June 2010)					
1	CTG1	CTG2	161 kV	CTG2 @ 161 kV	bus to CTG1 switched to isolate from Western & from BEP
		STG1	161 kV	STG1 @ 161 kV	conductors installed from Structure 1 to bus
				230-kV backfeed from Julian Hinds line, or Diesel 2MW backup generator (7 days) <sup>1</sup>	Convert CTG1 to 230 kV
					test CTG1 at 230kV
2	CTG1, CTG2, STG1	none		230kV backfeed from Julian Hinds line, or Diesel 2MW backup generator (approximately 14 days) <sup>1</sup>	Convert CTG2 and STG1 to 230kV
					disconnect plant from Western Grid buses
					Western employees remove physical conductors
					test CTG2 and STG1 at 230kV
					complete switching
	startup all three transformers				
3	none	CTG1	230kV	CTG1	commence commercial operation after approval by SCE and CAISO
		CTG2	230kV		
		STG1	230kV		
<sup>1</sup> During the plant outages the 230 kV Julian Hinds line would backfeed the plant; however, a 2MW diesel generator would be present on site as a back-up power supply should an extended 230-kV line outage occur. This outage would last up to 25 days, with approximately seven days required to convert each transformer.					

Initial steps to be accomplished during the first plant outage include modification of the existing relay panels that will provide fault protection to the Plant and the new 230-kV line to Julian Hinds Substation. Additionally, communications equipment will be installed that will provide load, equipment information, and voice lines between the BEP, SCE, and CAISO. The communications lines will enter the Buck Substation, underground, from the east side of the station at two locations to provide redundant paths as permitted under Insignificant Project Change 3, approved on January 27, 2009. The remaining work will involve testing of newly installed equipment and minor modification of existing equipment (e.g., hardware installation and testing which will occur within the switch control building) to operate at 230 kV. Testing will minimize the work required to perform the final conversion during the June 2010 outage.

### Second Outage

During the second plant outage, the final conversion from 161 kV operations to 230 kV operations will be completed. Auxiliary power to the Plant will be supplied by the SCE operating grid (Julian Hinds 230-kV line) through back feed from transformer CTG1. As a backup, a portable 2 MW generator and associated 2500 KVA portable step-up transformer will also be kept on site in the event that an extended outage of the 230-kV line occurs. This

generator will be a model XQ2000 with a capacity of 1,250 gallons. It has a 110 percent spill containment double walled fuel tank which will need to be refueled from one to three times per day. During this outage, the plant will be disconnected from the Western operating grid and connected to the SCE operating grid.

To implement the process, the plant will shut down CTG1 while CTG2 and STG1 remain in backfeed operation at 161kV. During the outage to CTG1, plant electrical service for lighting and required work will be provided from CTG2 through bus ties located in the plant. The portion of bus in the Buck Substation connected to CTG1 will be switched to isolate the unit from the Western operating grid and the Blythe Energy Plant (CTG2 and STG1).

With CTG1 electrically isolated from the Western operating grid and CTG2 and STG1, electrical conductors will be installed from Transmission Structure #2, to Transmission Structure #1, and finally to the Buck Substation bus (drawing BKB 1000, Appendix C). This will provide the electrical connection from the SCE (indicated as Julian Hinds in drawing BKB 0001, Appendix C) operating grid to the Buck Substation. The portion of the Buck Substation connecting CTG1 to the SCE operating grid will be ready for operation at 230 kV at this time.

*Transformer Voltage Shift*—While the electrical conductors are being installed during the second plant outage, the step-up transformer connected to CTG1 will be converted from 161-kV to 230-kV operations. This work will require that approximately 16,500 gallons of insulating fluid be removed from the transformer's tank. This is required to gain access to the connections that need to be changed to make the voltage conversion inside the transformer. The fluid removed from the transformer will be contained in up to three commercial tanker vehicles. Each vehicle will be temporarily parked next to the transformers during fluid transfer, and then driven off-site while the electrical connections are switched. A Construction Spill Prevention, Containment, and Countermeasures (SPCC) Plan for project construction has been developed to address the transformer fluid transfer (further details below and in Appendix D). The transformer tank will then be vacuum treated and refilled with the insulating fluid. After refilling the transformer, acceptance testing will be performed. Upon successfully completing the tests, the step-up transformer for CTG1 will be energized at 230 kV and capable of back feeding the plant with 16-kV service. The total time to convert the step-up transformer for CGT1 is estimated to be seven days. Once the conversion is completed, CTG1 will not be in operation and the plant-critical auxiliary power will be supplied by CTG2 and STG1.

*Switching Needed Inside Buck Substation*—After energizing the step-up transformer for CGT1, tests will be conducted within the plant to ensure the phase rotation and voltage limits are correct as required to operate equipment. After the necessary tests have been successfully conducted, the plant will initiate its shutdown of CGT2 and STG1. The bus in Buck Substation associated with CGT2 and STG1 will then be switched to isolate the units from the Western operating grid. Once the switching procedures are complete, Western crews will physically remove the electrical conductors that connect the plant to the Western operating grid and transfer them to the SCE operating grid (indicated as Blythe in drawing BKB 0001, Appendix C). At no time will the Western operating grid and the SCE operating grid be connected.

Once the plant's electrical system has been transferred to the SCE operating grid, the step-up transformers for CTG2 and STG1 will be converted from 161-kV to 230-kV operations using the same steps as described for the step-up transformer CTG1. The time to complete the conversion for both step-up transformers will be approximately seven days per transformer; however if additional crews are available they will work to perform the conversion of both step-up transformers simultaneously.

During the period that the step-up transformers are being converted from 161-kV to 230-kV operations, crews will work in the Buck Substation to convert the required equipment (such as capacitive coupled voltage transformers and other associated metering) to 230-kV operations. They will also test protective devices such as breakers and switches and will replace lightning arresters.

Once the conversion and tests of all associated equipment is complete, the plant will initiate startup of CGT1, CGT2 and STG1. After required tests to ensure proper operation with SCE and CAISO are successfully completed, the Blythe Energy Plant will be ready for commercial operation on the SCE operating grid.

### **2.1.2 Construction Access and Other Requirements**

As noted above, a portable generator will be used to provide a secondary means of back-up power during the second temporary plant outages. The generator is a model XQ2000 2 MW generator accompanied by a 2500 KVA portable step-up transformer. It is assumed that the generator and transformer will be used on site for no more than 25 days. Blythe Energy will rent a generator from Empire Power Systems in Phoenix, Arizona, that is registered with the California Air Resource Board's Portable Equipment Registration Program (PERP). These units have been shown to comply with state air quality standards and can be operated throughout California without having to obtain individual permits from local air districts. Thus, there will be no need for additional air quality permitting associated with this project modification though Blythe Energy will notify the Mojave Desert Air Quality Management District (MDAQMD) of unit rental and use. Copies of specifications, PERP registration, and the MDAQMD notification form for the generator; and specifications for the transformer are included in Appendix E.

As note above, the diesel generator has its own 110 percent spill containment for onboard engine fluids; the portable transformer, which holds 800 gallons of oil, is a closed unit. A temporary berm of gravel, concrete blocks, or sand bags will be installed and visqueen impermeable liner will be laid under the portable transformer to contain 110 percent of the transformer oil volume. The SPCC Plan for project construction also addresses final storage and fuel containment associated with portable generator use (Appendix D). The existing Stormwater Pollution Prevention (SWPP) Plan has been modified accordingly (Appendix F).

Approximately 16,500 gallons of insulating fluid from each of the three transformers will be removed to facilitate conversion and transferred to holding tank trucks (up to three per transformer). Therefore, should CTG2 and STG1 be converted simultaneously, up 33,000 gallons of insulating fluid would be transferred to up to six tankers during one time period. The

tanker trucks will leave the site during the conversion and return back after the conversion is completed to refill the transformers. Because the tanker trucks are not staging on site, no secondary containment measure for them is required.

The Buck Substation is located immediately adjacent to the Blythe Energy Center. All work will be done within the existing Buck Substation facility. Construction access would be via existing roads (Buck Boulevard and Riverside Avenue; Appendix A). There will be no change in ownership of parcels surrounding the substation site (see Table 2-2).

**Table 2-2. Summary of Ownership Differences for Parcels within 1,000 feet of the Perimeter of the Blythe Energy Project Facility**

APN	2005 Ownership	2009 Ownership
821-120-028	Sun World International	No Change
821-120-038	Sun World International	No Change
824-101-008	USA	No Change
824-102-020	Sun World International	No Change
824-102-023	Sun World International	No Change
824-102-025	Sun World International	No Change
824-102-026	Sun World International	No Change
824-102-027	Sun World International	No Change

*Crew Requirements and Timing*—Initial upgrade to the DCS system will be performed during the first plant outage of 38 days. A crew of up to five people will complete the work using small lift devices, for transporting some of the heavier communications equipment, and hand tools. This outage also allows time for routine maintenance of the plant.

Final conversion of plant operations from 161 kV to 230 kV will take between up to 25 days. This includes approximately seven days per transformer for conversion (CTG1 will be converted first, followed by concurrent conversion of CTG2 and STG2) plus time required to convert associated equipment and protective devices.

Dress-out and stringing of Transmission Structure #1 will take two days during the second plant outage, and will require a crew of up to five people. Equipment will consist of bucket trucks and stringing equipment. Table 2-3 summarizes the needed construction personnel and equipment for these minor modifications.

**Table 2-3. Construction Personnel and Equipment Summary**

<b>Construction Element</b>	<b>Personnel</b>	<b>Days</b>	<b>Equipment Requirements</b>
Initial Conversion of Buck Substation (first plant outage)—modification of relay panels, installation of communications equipment, equipment testing, and minor modification to existing facility	3-5 people	38 days	Small lift devices; hand tools
Final conversion of Buck Substation to 230 kV (second plant outage)—dress-out/stringing of Transmission Structure #1, connection of Transmission Structure #1 to Transmission Structure #2, conversion of step-up transformers, and transfer BEP's electrical system.	3-5 people	Up to 25 days	Bucket trucks and stringing equipment; hand tools
<sup>1</sup> 38-day plant outage for this element also includes time for routine maintenance to the facility.			

## **2.2 Necessity**

Initially, during the SCE new generation resource solicitation process it was determined that the transmission line intertie with the Buck Substation would classify the electric output from the BEP as an import under Western Electricity Coordinating Council procedures. This classification was not consistent with the solicitation requirement for CAISO continuous dispatch of the generation resource. Therefore, in 2007 Blythe Energy sought CEC approval of the proposed modification to the Buck-Julian Hinds transmission component such that this component interconnection would be revised from the Buck Substation to a new switchyard to be built at the BEP site. At the time, CAISO had granted approval of the modified interconnection and CEC approved the project change.

In 2007, leasing the Buck Boulevard station from Western was not an option. After further discussion with Western, a lease agreement was signed, allowing Blythe Energy to use the Buck Substation. This agreement, which is included as Appendix G, allows for a substantial reduction in ground-disturbing activities, since the GIS will not need to be constructed. It provides a substantial savings to the project in the avoidance of the purchase and installation of the GIS, and it is electrically satisfactory to all the participating parties. When the switchover is complete, the Buck Substation and the BEP will not be physically connected to the Western or any other system. Therefore, there will be no electrical connection between the CAISO system and any other system. A letter from Western approving the proposed substation use and change, and a letter to CAISO requesting approval are included in Appendices H and I, respectively.

## **2.3 New Information**

At the time of certification, the BEPTL was conceived to deliver electric energy from the BEP to the SCE transmission system through its interconnection at the Buck Substation. However, as noted above, in 2007 use of the Buck Substation was not an option. The subsequently lease agreement reached between Western and Blythe Energy has now made this original plan possible.

### **3 Environmental Analysis of Proposed Project Changes**

This section details, by resource, the potential impacts of the proposed project changes on the environment of the proposed change in substation use. All references to the Conditions of Certification are to the CEC's Final Revised Staff Assessment (CEC 2006a).

#### **3.1 Air Quality**

Impacts to air quality from the project as modified with the proposed changes would be essentially the same as the impacts associated with the project as currently approved, e.g., similar construction equipment and operation and maintenance activities. The short-term air quality impacts from construction of this changed interconnection would be limited to construction vehicle emissions and very minor dust (area is graveled or paved), which would be controlled using existing measures, and to the use of a temporary PERP-registered portable generator during the two plant outages. Thus, air quality impacts during construction will be minimal and will comply with state air quality standards. Air quality impacts associated with operation of the transmission line would continue to be limited to the emissions created by a limited number of vehicles for routine inspections, preventive maintenance, and necessary repairs. Therefore, the proposed changes would not cause any new air quality impacts above and beyond those already identified and mitigated for in the existing CEC Decision and Conditions of Certification. No changes to or deletions of any air quality Conditions of Certification are required.

#### **3.2 Biological Resources**

Project impacts to biological resources will be essentially the same as or less than that those currently approved project impacts for the BEP. Therefore, the proposed changes will not substantially change the impacts to biological resources above and beyond those already identified and mitigated for in the existing CEC Decision and Conditions of Certification.

The BEP property is an already disturbed, gravel-surfaced area. No natural habitats or biological resources are present (CEC 2006b). All work associated with this project modification would take place within the existing BEP and substation site. Therefore, there would be no biological resource impacts.

#### **3.3 Cultural Resources**

Impacts to cultural resources due to the proposed changes will be essentially the same as the impacts associated with the BEP as currently approved. Based on a review of previous reports, inventories, and evaluations of cultural resources, there are no cultural resources in the areas where insignificant changes are proposed. Therefore, the proposed changes will not cause new cultural resource impacts above and beyond those already identified and mitigated for in the existing CEC Certification and will not alter any existing or call for any new Conditions of Certification.

Previous reports, inventories, and evaluations of cultural resources in the project area were reviewed, and record searches and intensive surveys have been conducted for an Area of

Potential Effects (APE) that includes Buck Substation site. These efforts, which involved literature reviews, records searches, and field surveys, include:

- The original field surveys for the BEP power plant site conducted in 1999 (Pignuolo et al. 1999);
- Background research and initial cultural resources reconnaissance conducted in 2005 along the proposed and alternative BEPTL routes (Carrico et al. 2004);
- Intensive Class III archaeological surveys, including pedestrian surveys and cultural resource inventories, conducted in 2005 along the preferred BEPTL alignment (Carrico and Eckhardt 2006); and
- An additional record search and a Class III cultural resources survey along the BEPTL for proposed realignments and associated changes as an amendment to the 2005 cultural resource investigation (Carrico et al. 2008).

The cultural surveys conducted in 2005 did not result in the identification of previously unidentified cultural resources within the APE; therefore, the proposed modifications to the Buck Substation will not impact any new cultural resources. Therefore, no changes to, or modifications of, any cultural resource Conditions of Certification are required.

### **3.4 Geology and Paleontology**

Literature and archival reviews conducted for the approved project did not provide evidence of any paleontological resources that will be impacted by the proposed modifications to the Buck Substation. Because the proposed changes involve adjustments only within the substation property grounds, they will not cause any new geological or paleontological impacts above and beyond those already identified and mitigated for in the existing CEC Decision and Conditions of Certification. No changes to, or additions of, any geological or paleontological resource Conditions of Certification are required.

### **3.5 Hazardous Materials Management**

Hazardous materials that would be used in small quantities, such as fuels and lubricants, will be staged and used at the Buck Substation and standard construction SWPP Plan measures will be applied (Appendix F). Storage of such materials, spill prevention and analysis, and transport of hazardous materials to or from the Buck Substation will follow measures outlined in the original certification. No significant or reportable quantities of hazardous materials would remain on site for more than 30 days during either the construction or operations phase of the proposed project (this would be associated with the portable generator and associated transformer to be kept onsite as the secondary back-up power supply for the plant should backfeed from existing transmission lines be unavailable or fail).

The BEP is a zero-discharge facility and as such is exempt from a requirement to prepare and maintain a SWPP plan. Therefore, the existing SWPP Plan for the BEPTL has been modified to address fuel storage and fuel storage containment associated with the back-up generator and transformer associated with temporary construction activities within the fenceline of the BEP.

After construction is complete, the operation of the plant will continue as before, a zero-discharge facility. Proposed modifications to the SWPP plan include that while conducting the proposed modifications to the Blythe Energy Plant, all approved plant procedures will be followed and existing facilities for dealing with spills will be used (Appendix F).

Additional measures will be taken to manage the transfer of oil from the step-up transformers, and subsequent containment, during voltage conversion to prevent adverse impacts to the public and the environment. There are approximately 16,500 gallons of this insulating fluid within each of the three transformers that must be temporarily removed to gain access to the connections for voltage conversion. The fluid removed from the transformers will be contained in up to three commercial tanker trucks which would be driven offsite while the electrical connections are switched. Once the switching is completed, each transformer tank will then be vacuum treated and the tanker trucks will return to the site to refill the transformers with the insulating fluid. After refilling the transformer, acceptance testing will be performed.

An SPCC Plan for construction of this project modification will also be implemented to address transformer insulating fluid transfer and the use of the portable generator. The proposed construction SPCC Plan is included in Appendix D. Therefore, the transport and use of hazardous materials at the Blythe Energy Plant site would not result in significant impacts to the public or the environment. No changes to or additions of any hazardous materials management Conditions of Certification are required.

### **3.6 Land Use**

No changes proposed will impact current or future land use given that activities will occur within the BEP property. Therefore, the proposed changes will not cause any new land use impacts above and beyond those already identified and mitigated for in the existing CEC Decision and Conditions of Certification. No changes to or additional Conditions of Certification are required.

### **3.7 Noise and Vibration**

The proposed modifications will not change the noise impact of the Project. The proposed modifications are located in areas that have no permanent residents and there are no additional activities that will generate substantial sustained noise events. No changes to or additional Conditions of Certification are required.

### **3.8 Public Health**

The proposed modifications will not change the location of the Project with respect to residences or other sensitive receptor. The proposed modifications will not change the impact the Project will have on public health. No changes to or additional Conditions of Certification are required.

### **3.9 Socioeconomics**

The proposed modification will not change the impact the Project will have on socioeconomics or on schools, housing, law enforcement, emergency services, hospitals, or utilities. No changes to or additional Conditions of Certification are required.

### **3.10 Soil and Water Resources**

No vegetation clearing, new ground disturbance, or access road construction is required to conduct these changes. Therefore, the proposed changes will not cause a different impact from the existing use of these areas. No additional laydown areas are required. Mitigation measures found in the Drainage, Erosion and Sedimentation Plan/SWPP Plan will be implemented. The proposed updated version of the SWPP Plan is included in Appendix F. No changes to or additional Conditions of Certification are required.

### **3.11 Traffic and Transportation**

The proposed substation modification will not change the impact the Project will have on traffic and transportation. Access from state and county roads will be similar to the approved project and the proposed modifications will not cause substantial changes to construction or operation traffic. The proposed modification will not require the reconfiguration of any access or stub roads. The Buck Substation site is accessible via I-10, existing interchanges, and the existing state and county roads. Therefore, no traffic or circulation impacts will occur from the proposed modifications. No changes will occur in type of vehicles or equipment traveling on these routes, or their structural or cargo specifications. The proposed substation modification will not cause changes to traffic or circulation in the area over that evaluated in the initial application. No changes to or additional Conditions of Certification are required.

### **3.12 Visual Resources**

The proposed Buck Substation modification will occur within the existing substation site and therefore will not change the appearance of the overall project from key observation points. The proposed modification will have fewer visual impacts than the currently approved project because no GIS will be constructed. No changes to or additional Conditions of Certification are required.

### **3.13 Waste Management**

All waste management measures proposed in the Amendment Petition and the Conditions of Certification specified in the Final Decision for the BEP are implemented. All oil removed from the transformers during the conversion process will be replaced. Therefore, no changes to or additional Conditions of Certification are required.

### **3.14 Worker Safety and Fire Protection**

Construction and operation of the proposed modifications would not change the impact the Project would have to worker safety or cause a change in fire hazard. During Project construction, worker safety precautions will consist of enclosed space security measures

(lanyards, visual oversight, and oxygen sniffer to ensure proper breathing levels) and standby fire extinguishers. All of the oil will be removed from the transformers and temporarily stored in the tanker trucks. It is not usual and customary practice to have extra fire protection measures take place other than standby fire extinguishers. No changes to or additional Conditions of Certification are required.

## **4 Ability to Comply With LORS**

The proposed project changes discussed in this SAPM are minor and are consistent with all applicable LORS. The findings and conclusions contained in the Commission Decision for BEP (CEC 2001) and the Blythe Transmission Line (CEC 2006a) are still applicable to the Project as modified. Neither of the proposed modifications will require any changes to the Conditions of Certification.

## **5 Potential Effects on the Public**

The proposed modifications will not change the impact of the proposed project or have a significant adverse impact to the public.

## **6 List of Property Owners**

Appendix J provides a list of all property owners whose property is located within 1,000 feet of the perimeter of the Buck Substation in accordance with the CEC Siting Regulations (Title 20, CCR, Section 1769[a][1][H]).

## **7 Potential Effects on Property Owners**

The proposed modification will occur entirely within the Blythe Energy plant property. No change in overall impact to property owners will result from the proposed modifications.

## **8 References Cited**

- Carrico, R., W. Eckhardt, and K. Walker. 2004. Cultural resource survey of the proposed Blythe transmission line project, Riverside County, California. Prepared by Mooney/Hayes Associates, LLC, for Southern California Edison.
- Carrico, R., and W. Eckhardt. 2006. Final Draft Cultural Recourse Inventory of the Proposed Blythe Energy Transmission Project, Riverside County, California. Prepared by Mooney/Jones & Stokes, San Diego, California. Submitted to the BLM, CEC, and Western. Submitted to the Docket on June 14, 2006.
- Carrico, R., F. Budinger, and J. Farrell. 2008. Final amendment to cultural resources inventory of the proposed Blythe Energy Project transmission line, Riverside County, California. Prepared by Tetra Tech, EC Inc. Submitted to the Bureau of Land Management.
- CEC (California Energy Commission). 2001. Commission Decision for the Blythe Energy Project (99-AFC-8).

- CEC. 2006a. Commission Decision on Amendment Petition for the Blythe Energy Project (99-AFC-8).
- CEC. 2006b. Revised Staff Assessment/ Draft Environmental Assessment for the Blythe Energy Project Transmission Line Modifications (99-AFC-8C).
- Pignuolo, A.R., M. Baksh, and J. Dietler. 1999. Cultural Resource Survey for the Blythe Energy Project, Riverside County, California. Manuscript on file at Tierra Environmental Services.
- Western and BLM. 2007. Finding of No Significant Impact and Floodplain Statement of Findings – Blythe Energy Project Transmission Line Modifications Project, Riverside County, California. Western/DOE EA-1522.

## **Appendix A**

### **Aerial Images of Proposed New Substation Connection**



SCALE: 1"=200'

RIVERSIDE AVENUE

APN  
824-101-022

WESTERN AREA  
POWER  
ADMINISTRATION  
(WAPA)  
BUCK SUBSTATION

STR 1  
BTL

BUCK BOULEVARD

824-101-021  
SUN WORLD INT.

STR 3  
BTL

STR 2  
BTL

824-101-021  
BLYTHE ENERGY LLC

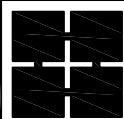
IID 'F'  
TRANSMISSION  
LINE

WAPA  
TRANSMISSION  
LINE



GRAPHIC SCALE: 1"=200'

**The Holt Group**  
ENGINEERING PLANNING SURVEYING



201 E. Hobsonway  
1601 N. Imperial Ave.

Blythe, Ca 92225  
El Centro, Ca 92243

760.922.4658  
760.337.3883

**EXHIBIT: BLYTHE TRANSMISSION LINE**  
**CURRENT LOCATION OF STRUCTURE NO.1**  
**AT WESTERN AREA POWER ADMINISTRATION**  
**(BUCK SUBSTATION) PROPERTY**

SHEET: 1

OF 2 SHEETS

CLIENT: FPL ENERGY

DATE: 07/29/09

BY: R S N

JOB NUMBER: 632.030



SCALE: 1"=200'

RIVERSIDE AVENUE

APN  
824-101-022

WESTERN AREA  
POWER  
ADMINISTRATION  
(WAPA)  
BUCK SUBSTATION

BUCK BOULEVARD

824-101-021  
SUN WORLD INT.

GIS BUILDING

STR 3  
BTL

STR 2  
BTL

STR 1  
BTL

824-101-021  
BLYTHE ENERGY LLC

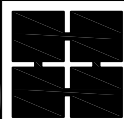
IID 'F'  
TRANSMISSION  
LINE

WAPA  
TRANSMISSION  
LINE



GRAPHIC SCALE: 1"=200'

**The Holt Group**  
ENGINEERING PLANNING SURVEYING



201 E. Hobsonway  
1601 N. Imperial Ave.

Blythe, Ca 92225  
El Centro, Ca 92243

760.922.4658  
760.337.3883

**EXHIBIT:** BLYTHE TRANSMISSION LINE  
PREVIOUS LOCATION OF  
STRUCTURE NO.1 AND GIS BUILDING  
AT BLYTHE ENERGY PLANT PROPERTY.

SHEET: 2

OF 2 SHEETS

CLIENT: FPL ENERGY

DATE: 07/29/09

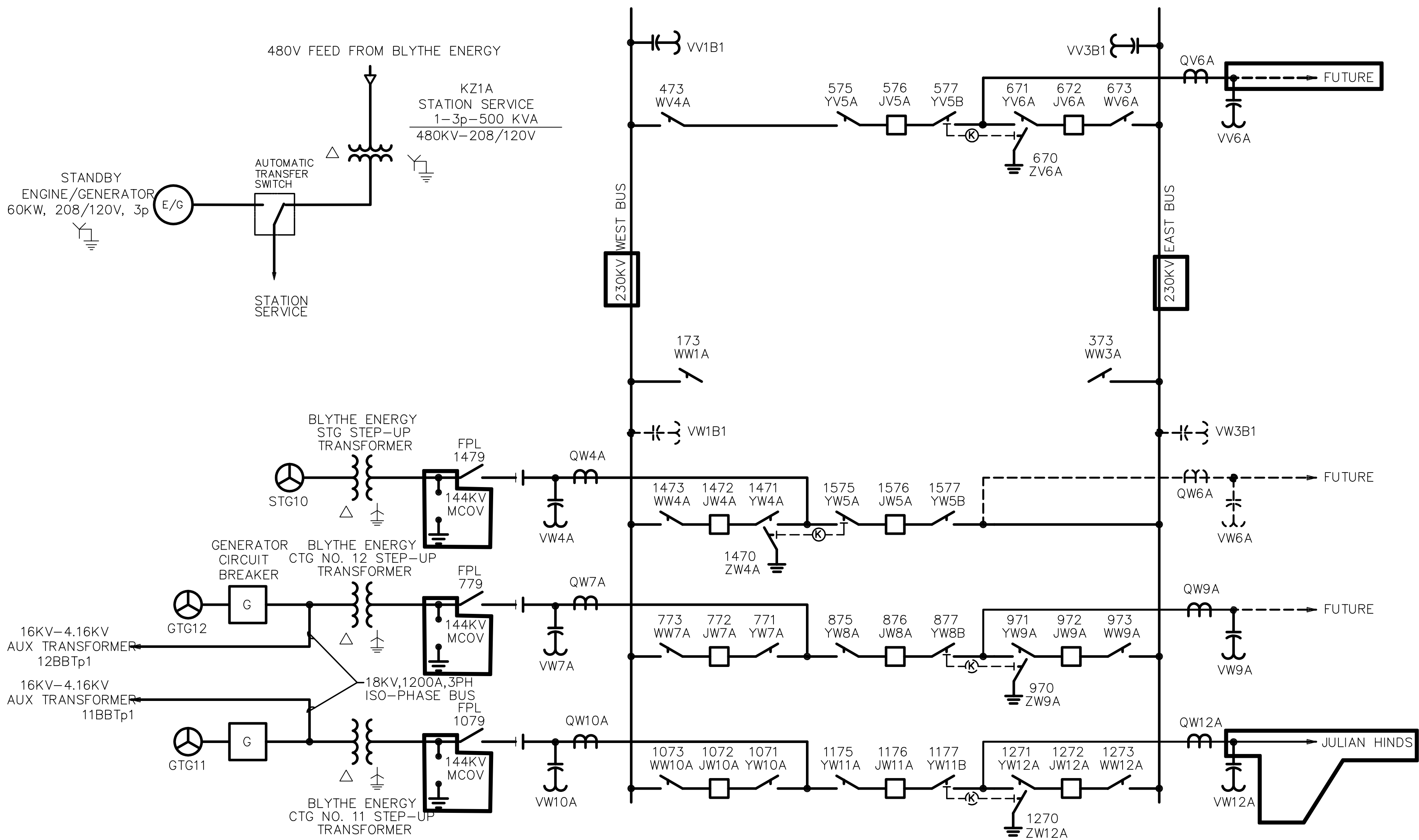
BY: R S N

JOB NUMBER: 632.030

## **Appendix B**

### **Drawings Showing General Configuration of Western's Buck Boulevard Substation Before and After Proposed Change**





TRANSFORMERS			
DESIGNATION	KV	MAX MVA	SPEC OR STAGE NO.
KZ1A	480V	300	STAGE 01

DISCONNECTING SWITCHES			
DESIGNATION	KV	CONT AMP	SPEC OR STAGE NO.
WV4A, 6A	230	2000	STAGE 01
WW1A,3A,4A	230	2000	STAGE 01
WW7A,9A,10A,12A	230	2000	STAGE 01
YV5A,YV5B,YV6A-ZV6A	230	2000	STAGE 01
YW5A,5B,7A,8A,8B	230	2000	STAGE 01
YW4A-ZW4A,YW12A-ZW12A	230	2000	STAGE 01
YW10A,11A,11B	230	2000	STAGE 01
YW9A-ZW9A	230	2000	STAGE 01

POWER CIRCUIT BREAKERS					
DESIGNATION	KV	CONT AMP	SHORT CKT KA	TIME CYCLE	SPEC OR STAGE NO.
JV5A,6A	230	2000	40	3	STAGE 01
JW4A,5A	230	2000	40	3	STAGE 01
JW7A,8A,9A	230	2000	40	3	STAGE 01
JW10A,11A,12A	230	2000	40	3	STAGE 01

COUPLING CAPACITOR VOLTAGE TRANSFORMERS			
DESIGNATION	KV	RATIO	SPEC OR STAGE NO.
VV6A	161\230	1200/2000:1	STAGE 01
VV1B1,3B1	161\230	1200/2000:1	STAGE 01
VW4A,7A,9A	161\230	1200/2000:1	STAGE 01
VW10A,12A	161\230	1200/2000:1	STAGE 01

CURRENT TRANSFORMERS			
DESIGNATION	KV	RATIO	SPEC OR STAGE NO.
QV6A	230	1000/2000:5	STAGE 01
QW4A,QW7A,QW10A	230	400/800:5	STAGE 01
QW9A,QW12A	230	600/1200:5	STAGE 01

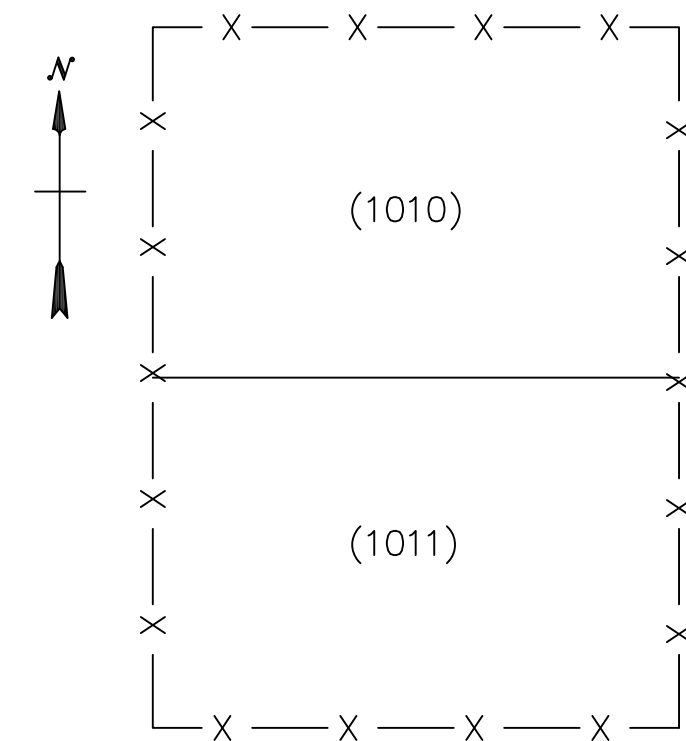
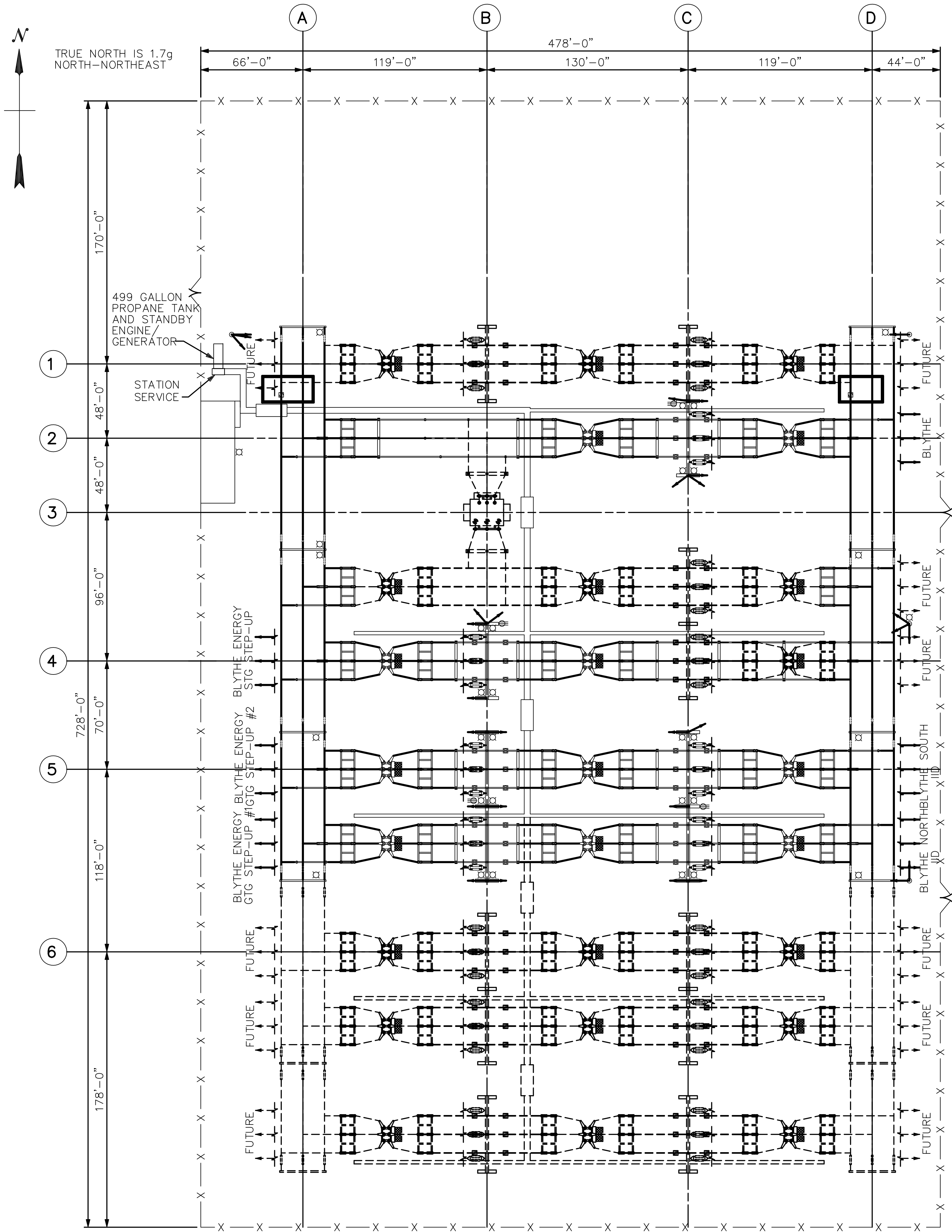
ISSUED FOR  
10/06/09  
REVIEW

H	8-10-09 PEI	ADD JULIAN HINDS LINE, CHANGE TO 230KV OPERATION
G	5-9-06 G4-CLJ	AS-BUILT
F	6-24-05 G5-JSL	CHANGED IID BLYTHE NORTH AND SOUTH LINES TO FUTURE
E	5-29-02 G5-BKK	CHANGE OPERATION NUMBERS FROM 230KV TO 161KV
D	2-26-02 G5-JSL	ADDED OWNERSHIP AND GENERATOR
C	07/13/01 A7-SB	MOVED CCVT'S VV1B, VV3B FROM C-PHASE TO A-PHASE.
B	11/01/00	CHANGED LINE POSITIONS, ADDED DISCONNECT SWITCHES
A	10/30/00	ADDED SECOND IID LINE

UNITED STATES DEPARTMENT OF ENERGY WESTERN AREA POWER ADMINISTRATION CORPORATE SERVICES OFFICE - LAKEWOOD, COLORADO		
BUCK BOULEVARD SUBSTATION		
CALIFORNIA		
SWITCHING DIAGRAM		
DESIGNED MICHAEL C. LEWIS	APPROVED PHIL M. DAVIS DESIGN MANAGER	
DATE FEBRUARY 6, 2001	BKB	0001

APPROXIMATE ELEVATION 335 FEET

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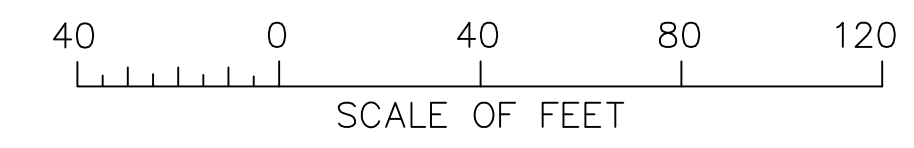
KEY PLAN

EXPLANATION

- --- LIGHTING UNIT MOUNTED ON STRUCTURE
- ⊖ --- 208V 3-PHASE RECEPTACLE MOUNTED ON STRUCTURE

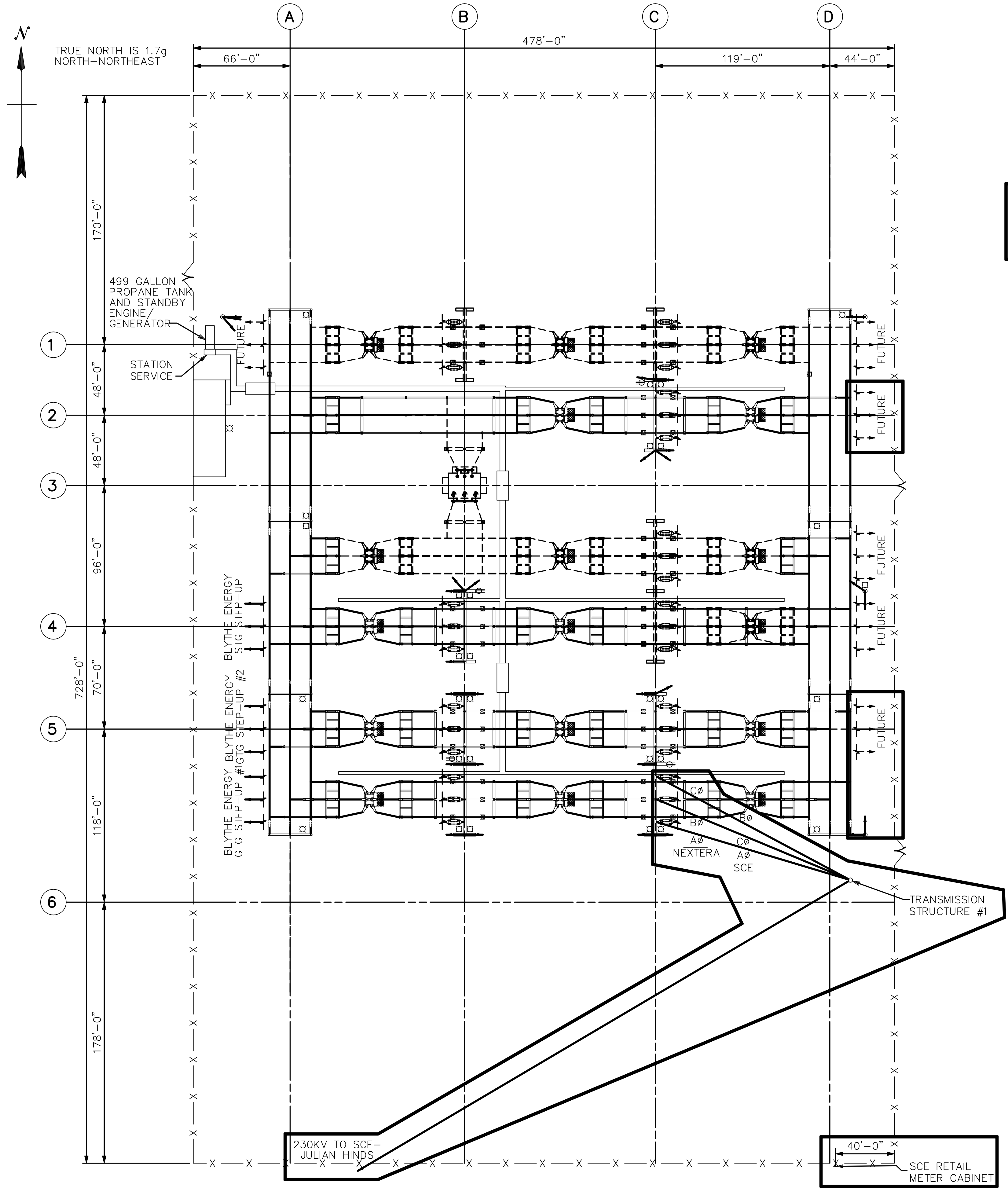
REFERENCE DRAWINGS

- SWITCHING DIAGRAM --- BKB 0001
- 230KV AREA PLAN --- BKB 1010
- 230KV AREA PLAN --- BKB 1011



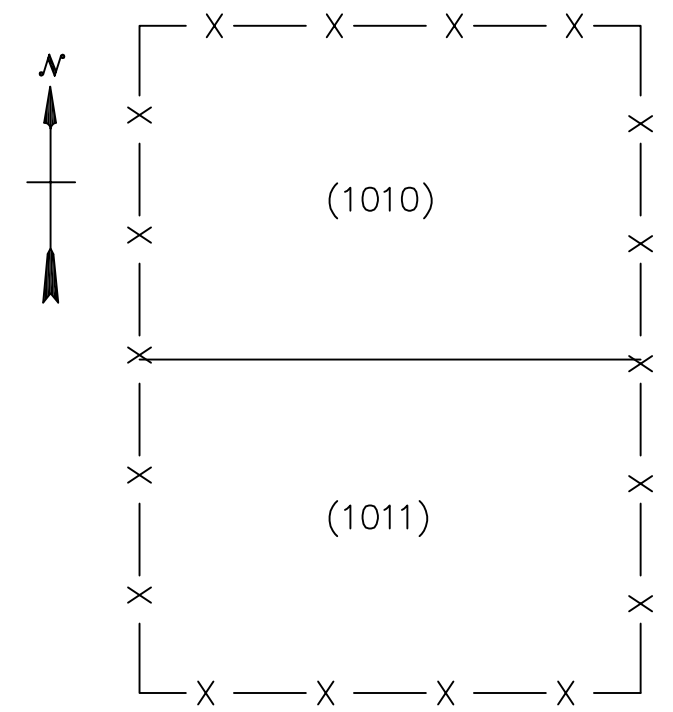
B	7-17-01 A7-SB	MOVED VV1B1 AND VV3B1 TO pA	
	A	6-7-01 A7-KKR	ADDED NOTE TO NORTH ARROW
UNITED STATES DEPARTMENT OF ENERGY WESTERN AREA POWER ADMINISTRATION CORPORATE SERVICES OFFICE — LAKEWOOD, COLORADO			
BUCK BOULEVARD SUBSTATION  CALIFORNIA			
GENERAL ARRANGEMENT PLAN			
DESIGNED <u>S. BONFIGLIO</u> -----		APPROVED <u>R.M. CLARK</u> ----- ELECTRICAL ENGINEERING MANAGER	
C/E	DECEMBER 21, 2000	BKB	1000

Wed Jul 18 2001 10:55:11 AM S:\Projects\BuckBldg\Design\Drawings\DrawingsReadyForFinal\Scripts\job\_1000b.dwg



#### COMM. SYSTEMS

1. PRIMARY RELAYING-OPGW TO JULIAN HINDS VIA NEW LINE.
2. SECONDARY RELAYING-FIBER TO DUNES VIA FIBER PATH #1.
3. SPS PRIMARY PATH-FIBER TO DUNES VIA FIBER PATH #2.
4. SPS SECONDARY PATH-MICROWAVE.



KEY PLAN

#### EXPLANATION

- LIGHTING UNIT MOUNTED ON STRUCTURE  
⊕ 208V 3-PHASE RECEPTACLE MOUNTED ON STRUCTURE

#### REFERENCE DRAWINGS

SWITCHING DIAGRAM -----BKB 0001  
230KV AREA PLAN -----BKB 1010  
230KV AREA PLAN -----BKB 1011

# PRELIMINARY

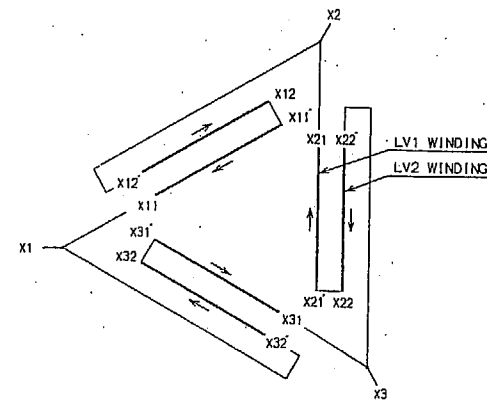
C	5-14-09 PEI	CHANGED 110 BLYTHE JV5A TO FUTURE AND JW11A TO SCE-JULIAN HINDS	
	B	7-17-01 A7-SB	MOVED VV1B1 AND VV3B1 TO pA
	A	6-7-01 A7-KKR	ADDED NOTE TO NORTH ARROW
UNITED STATES DEPARTMENT OF ENERGY WESTERN AREA POWER ADMINISTRATION CORPORATE SERVICES OFFICE - LAKEWOOD, COLORADO			
BUCK BOULEVARD SUBSTATION CALIFORNIA			
GENERAL ARRANGEMENT PLAN			
DESIGNED <u>S. BONFIGLIO</u> APPROVED <u>R.M. CLARK</u> ELECTRICAL ENGINEERING MANAGER			
DECEMBER 21, 2000		BKB	1000

40 0 40 80 120  
SCALE OF FEET

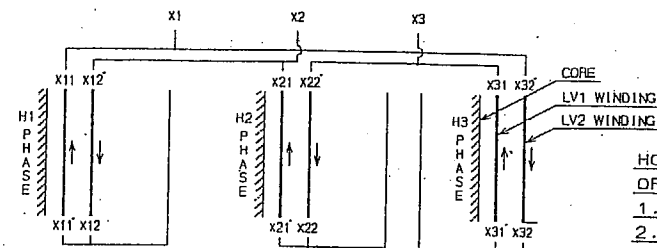
## **Appendix C**

### **Drawings Showing Switching of Western's Buck Boulevard Substation Before and After Proposed Change**

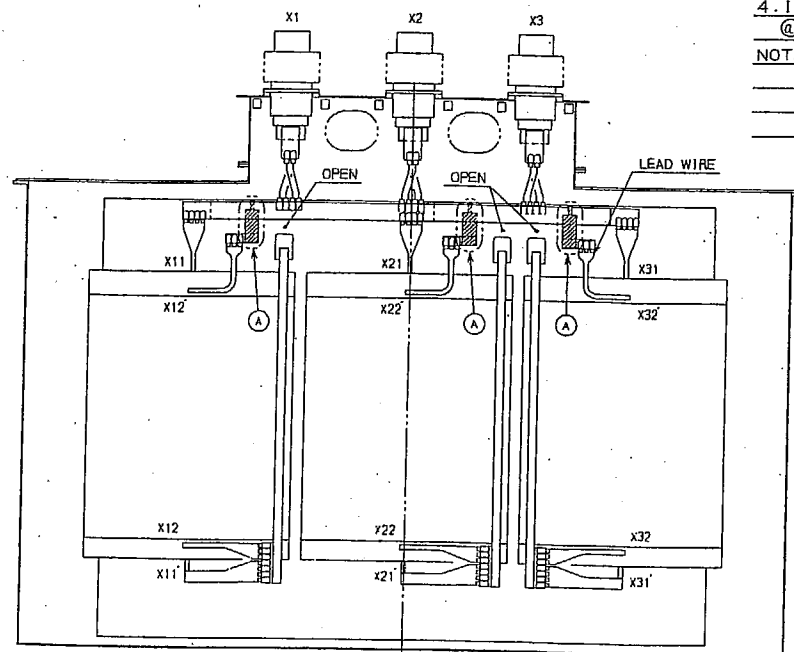
# HOW TO CHANGE THE VOLTAGE RATING FROM 161kV OPERATION TO 230kV OPERATION (210MVA TRANSFORMER)



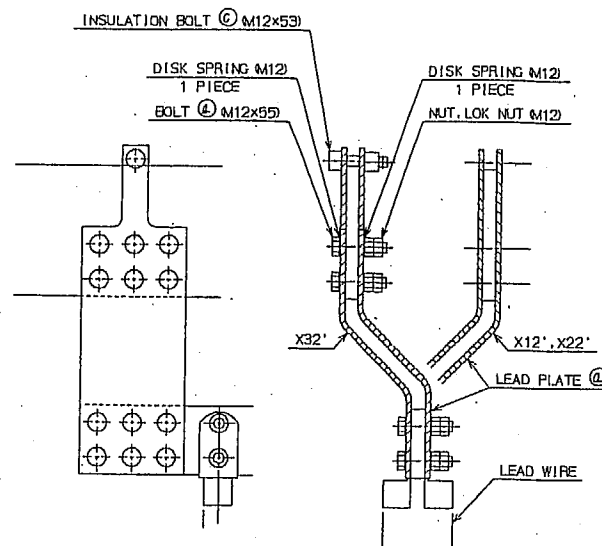
VECTOR DIAGRAM (LV)



CONNECTION DIAGRAM (LV)



LV LEAD WIRING DWG.  
CASE OF HV 161kV OPERATION

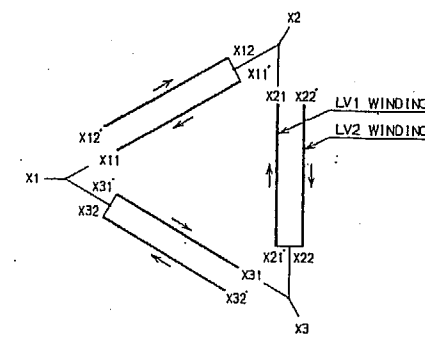


DETAIL OF PART A

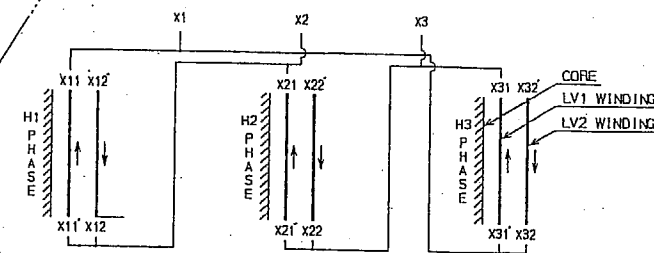
HOW TO CHANGE THE VOLTAGE RATING FROM 161kV OPERATION TO 230kV OPERATION

1. 12 BOLTS (A) ON LEAD PLATE (A) ARE TAKEN OUT
2. INSULATION BOLT (C) ON THE TOP OF LEAD PLATE (A) IS LOOSEN WITHOUT TAKING OUT
3. LEAD PLATE (A) IS SLIDED TO SIDEWAYS X12'-X12, X22'-X22, X32'-X32 AND IS TIGHTEN BY BOLT (A) (SHOWN ON LV LEAD WIRING DWG.)
4. INSULATION BOLT (C) ON THE TOP OF LEAD PLATE (A) IS TIGHTEN AGAIN

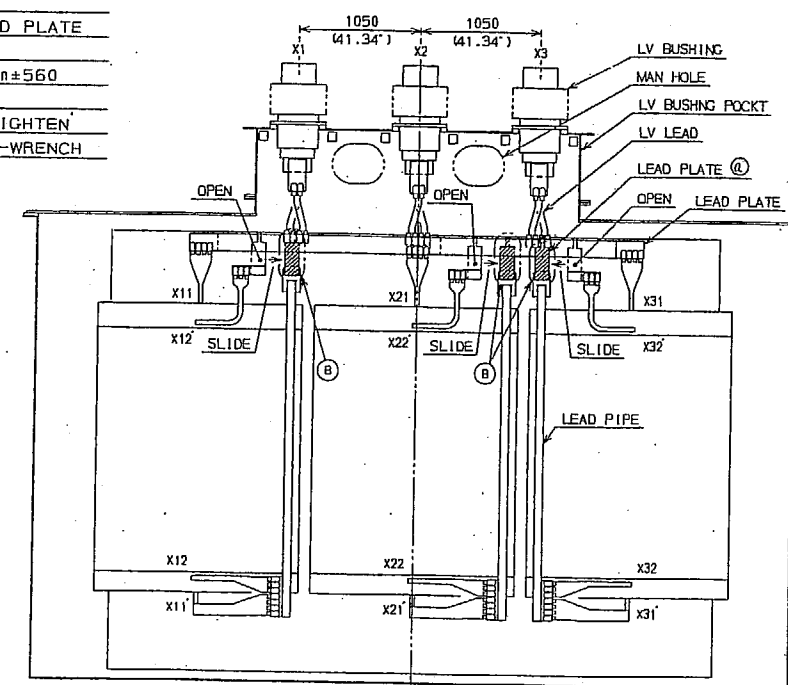
NOTE: BOLT (A) SHOULD BE TIGHTEN 2520lb-in (±560 (450kg-cm±100)) BY TORQUE-WRENCH AND INSULATION BOLT (C) SHOULD BE TIGHTEN 500lb-in (±30 (90kg-cm±6)) BY TORQUE-WRENCH



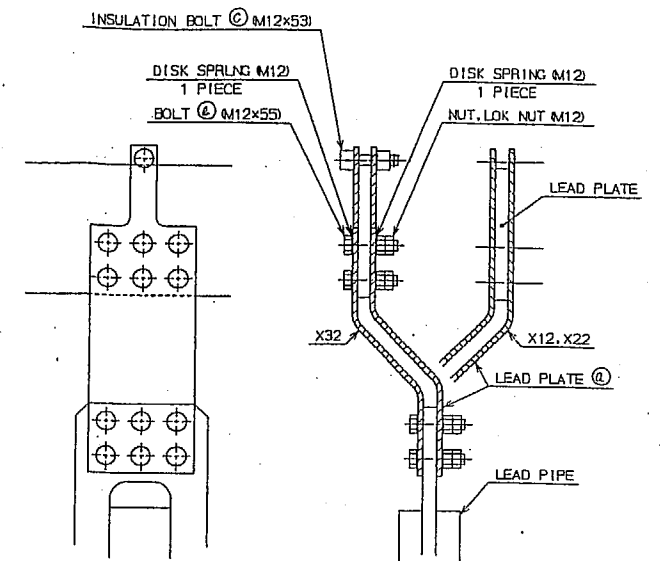
VECTOR DIAGRAM (LV)



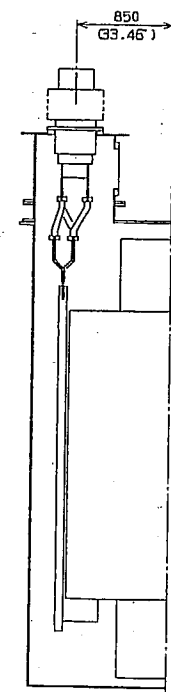
CONNECTION DIAGRAM (LV)



LV LEAD WIRING DWG.  
CASE OF HV 230kV OPERATION

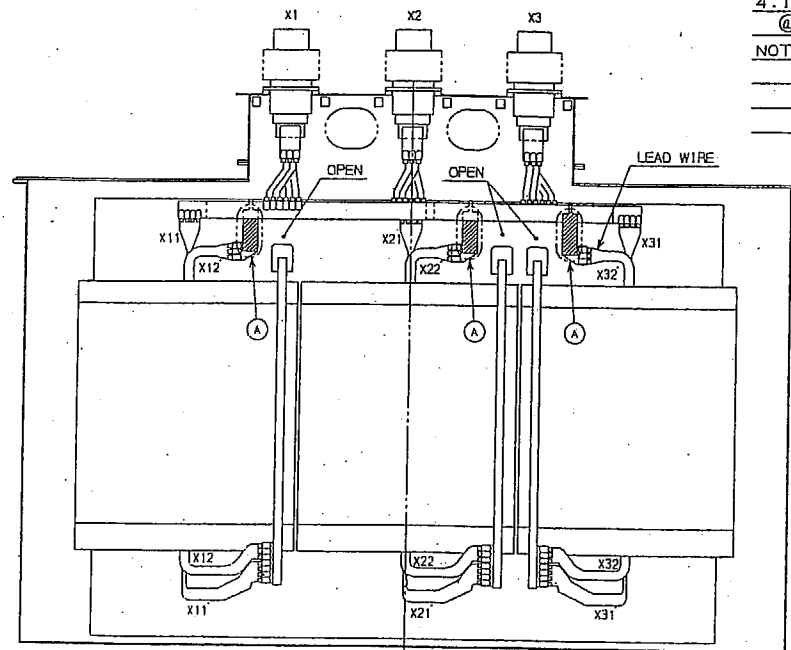
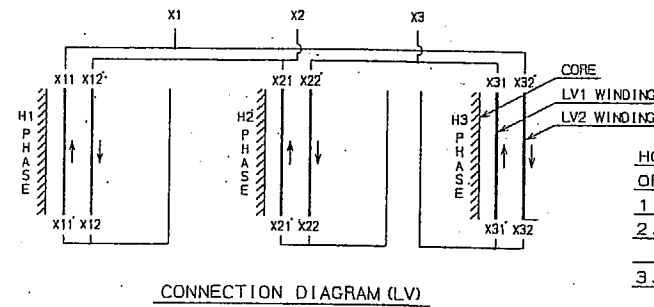
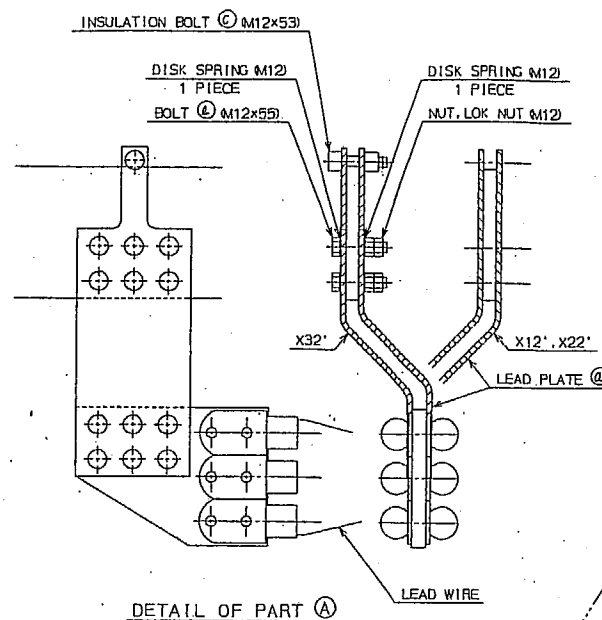
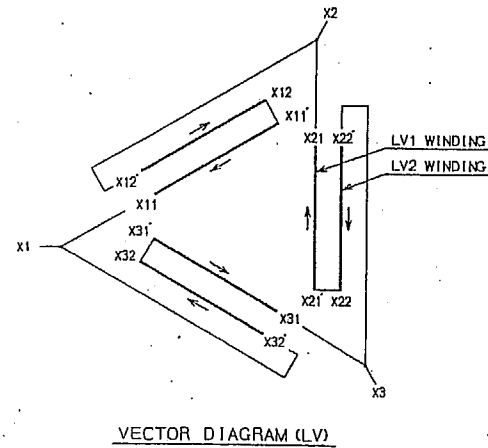


DETAIL OF PART B



SIDE VIEW

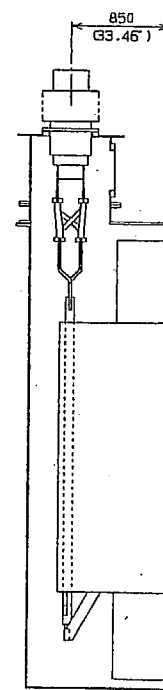
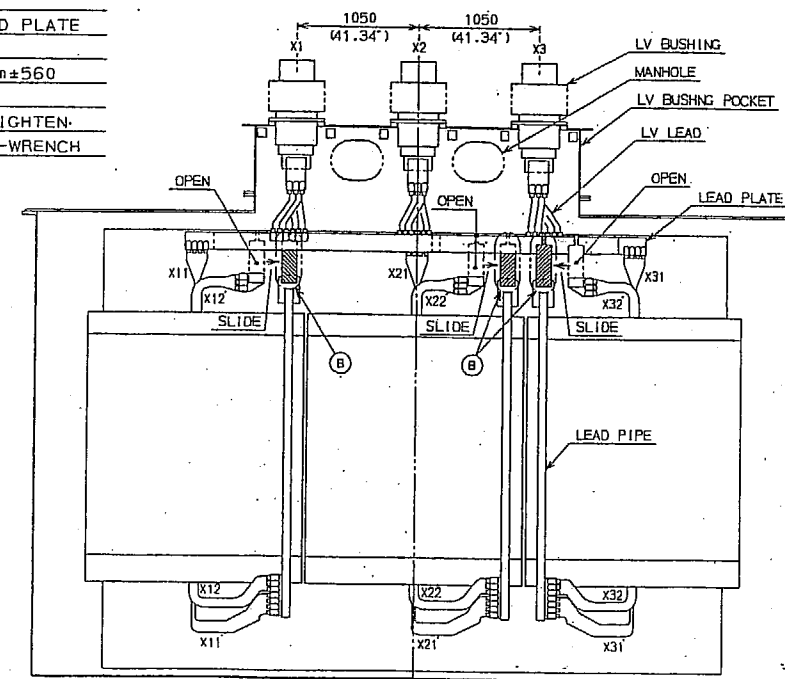
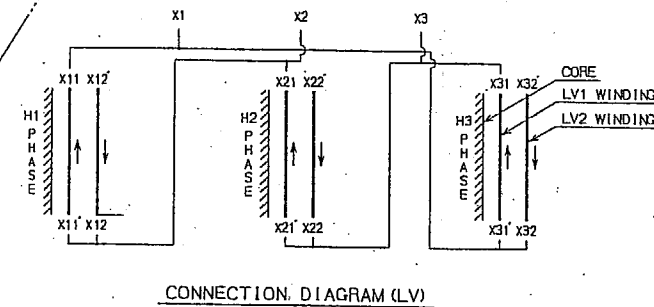
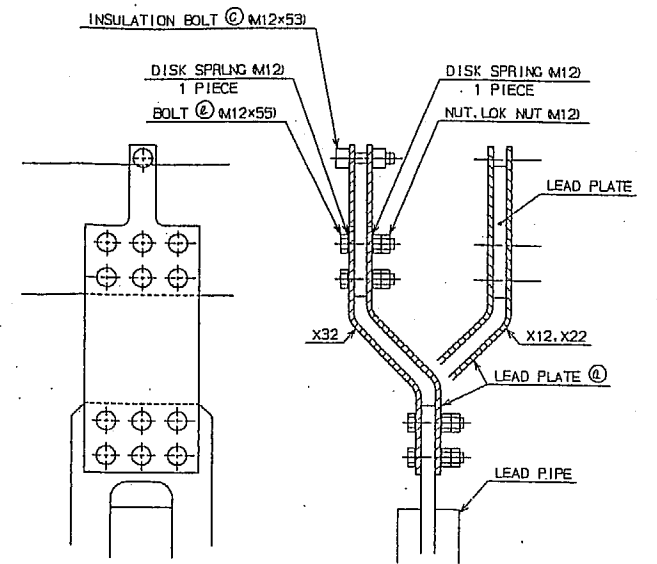
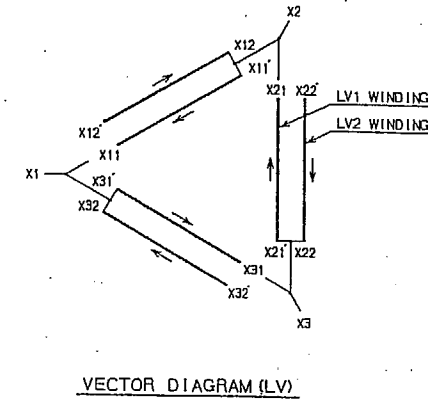
# HOW TO CHANGE THE VOLTAGE RATING FROM 161kV OPERATION TO 230kV OPERATION (260MVA TRANSFORMER)



HOW TO CHANGE THE VOLTAGE RATING FROM 161kV OPERATION TO 230kV OPERATION

1. 12 BOLTS (A) ON LEAD PLATE (A) ARE TAKEN OUT
2. INSULATION BOLT (B) ON THE TOP OF LEAD PLATE (A) IS LOOSEN WITHOUT TAKING OUT
3. LEAD PLATE (A) IS SLIDED TO SIDEWAYS X12'-X12, X22'-X22, X32'-X32 AND IS TIGHTEN BY BOLT (A) (SHOWN ON LV LEAD WIRING DWG.)
4. INSULATION BOLT (B) ON THE TOP OF LEAD PLATE (A) IS TIGHTEN AGAIN

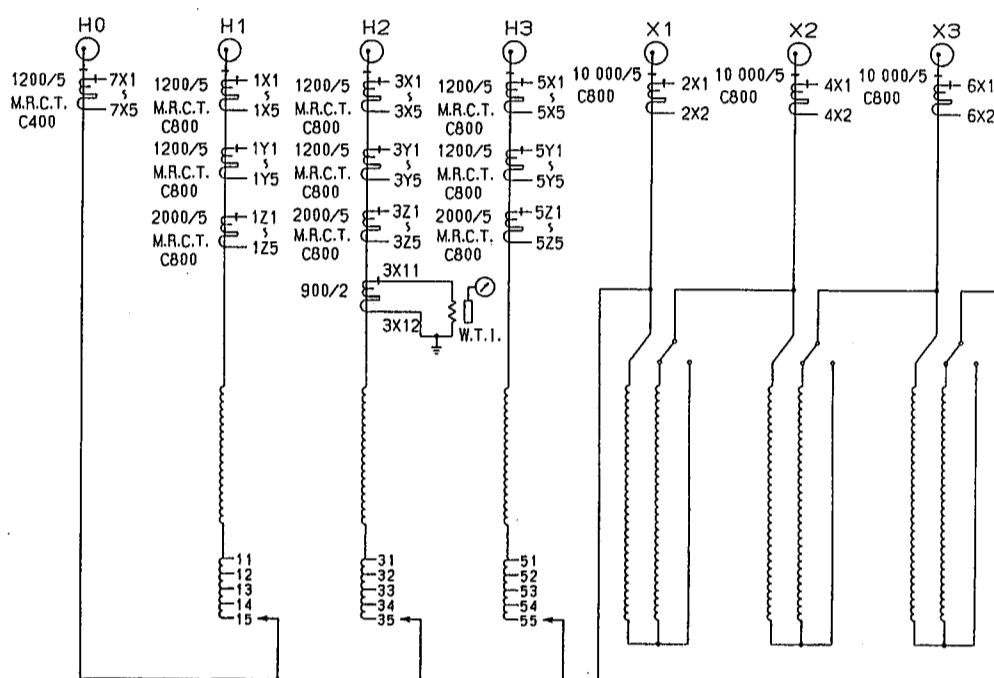
NOTE: BOLT (A) SHOULD BE TIGHTEN 2520 lb-in ± 560 (450 kg-cm ± 100) BY TORQUE-WRENCH AND INSULATION BOLT (B) SHOULD BE TIGHTEN 500 lb-in ± 30 (90 kg-cm ± 6) BY TORQUE-WRENCH



# HITACHI

## TRANSFORMER

THREE PHASE			60 Hz	ANSI-C57.12.00-2000		
CLASS		ONAN	ONAF	ONAF	MAXIMUM TEMPERATURE RISE IN OIL 65 °C	
WDG. TEMP. RISE BY RESISTANCE		65 °C	65 °C	65 °C	QUANTITY OF MAIN TANK OIL gal	
					QUANTITY OF RADIATOR OIL gal	
MVA RATINGS AT 65°C		132	176	220	APPROXIMATE MASSES	
VOLTAGE RATINGS	HV	161 000GrdY/ 92 953			CORE & WINDINGS 234 000 lb	
	LV	16 000			TANK & FITTINGS 140 000 lb	
IMPULSE LEVELS (BIL)	HV WINDING		650 BIL		MAIN TANK OIL 104 000 lb	
	HV WINDING NEUTRAL		150 BIL		RADIATOR OIL 18 000 lb	
	LV WINDING		150 BIL		TOTAL MASS 496 000 lb	
PERCENT IMPEDANCE @75°C	( 161 000-16 000 VOLTS. ) AT 132 000 kVA			%	UNTANKING MASS 234 000 lb	
					SHIPPING MASS 276 000 lb	
					INSULATING LIQUID	INHIBITED OIL
					SERIAL NUMBER	
					MONTH/YEAR OF MANUFACTURE	
					PURCHASE ORDER NUMBER	



The diagram illustrates the internal wiring and taps of a 1200/5 M.R.C.T. C800 transformer. It is organized into three main vertical sections: H0, H1, and H2, each with its own set of windings and taps. H0 has a single winding with taps 7X1 and 7X5. H1 has two windings, each with taps 1X1, 1X5, 1Y1, 1Y5, 1Z1, and 1Z5. H2 has two windings, each with taps 3X1, 3X5, 3Y1, 3Y5, 3Z1, and 3Z5. The diagram also shows a 900/2 winding with taps 3X11 and 3X12, and a W.T.I. winding. The output section shows three windings labeled X1, X2, and X3, each with taps 2X1, 2X2, 4X1, 4X2, 6X1, and 6X2. The diagram is labeled with various tap numbers and winding specifications.

B C T			
LOCATION	RATIO	CONNECTION	ACCURACY
H1 H2 H3	100/5 A	1X2-1X3, 3X2-3X3, 5X2-5X3	—
	200/5 A	1X1-1X2, 3X1-3X2, 5X1-5X2	
	300/5 A	1X1-1X3, 3X1-3X3, 5X1-5X3	
	400/5 A	1X4-1X5, 3X4-3X5, 5X4-5X5	
	500/5 A	1X3-1X4, 3X3-3X4, 5X3-5X4	
	600/5 A	1X2-1X4, 3X2-3X4, 5X2-5X4	
	800/5 A	1X1-1X4, 3X1-3X4, 5X1-5X4	
	900/5 A	1X3-1X5, 3X3-3X5, 5X3-5X5	
1000/5 A	1X2-1X5, 3X2-3X5, 5X2-5X5	C800	
1200/5 A	1X1-1X5, 3X1-3X5, 5X1-5X5		
H1 H2 H3	100/5 A	1Y2-1Y3, 3Y2-3Y3, 5Y2-5Y3	—
	200/5 A	1Y1-1Y2, 3Y1-3Y2, 5Y1-5Y2	
	300/5 A	1Y1-1Y3, 3Y1-3Y3, 5Y1-5Y3	
	400/5 A	1Y4-1Y5, 3Y4-3Y5, 5Y4-5Y5	
	500/5 A	1Y3-1Y4, 3Y3-3Y4, 5Y3-5Y4	
	600/5 A	1Y2-1Y4, 3Y2-3Y4, 5Y2-5Y4	
	800/5 A	1Y1-1Y4, 3Y1-3Y4, 5Y1-5Y4	
	900/5 A	1Y3-1Y5, 3Y3-3Y5, 5Y3-5Y5	
1000/5 A	1Y2-1Y5, 3Y2-3Y5, 5Y2-5Y5	C800	
1200/5 A	1Y1-1Y5, 3Y1-3Y5, 5Y1-5Y5		
H1 H2 H3	300/5 A	1Z3-1Z4, 3Z3-3Z4, 5Z3-5Z4	—
	400/5 A	1Z1-1Z2, 3Z1-3Z2, 5Z1-5Z2	
	500/5 A	1Z4-1Z5, 3Z4-3Z5, 5Z4-5Z5	
	800/5 A	1Z2-1Z3, 3Z2-3Z3, 5Z2-5Z3	
	1100/5 A	1Z2-1Z4, 3Z2-3Z4, 5Z2-5Z4	
	1200/5 A	1Z1-1Z3, 3Z1-3Z3, 5Z1-5Z3	
	1500/5 A	1Z1-1Z4, 3Z1-3Z4, 5Z1-5Z4	
	1600/5 A	1Z2-1Z5, 3Z2-3Z5, 5Z2-5Z5	
2000/5 A	1Z1-1Z5, 3Z1-3Z5, 5Z1-5Z5	C800	

**VECTOR DIAGRAM**

HV	LV

**CAUTION!**

DO NOT OPERATE THE TRANSFORMER WHEN THE OIL LEVEL IS BELOW THE LOW POINT ON THE SCALE.

DO NOT OPERATE THE 'NO-LOAD DE-ENERGIZED TAP CHANGER' WHEN THE TRANSFORMER IS ENERGIZED.

INSTRUCTION BOOK NO.KTL-1772 (READ BEFORE INSTALLING OR OPERATING).



INSTRUCTION BOOK NO. KTL-1772

311-1TA18884-B

5-66 (0.24") HOLES

THIS DRAWING IS SUPERSEDED FROM 311-TA17919 FOR MODIFICATION OF TRANSFORMER CAPACITY

[illegible]

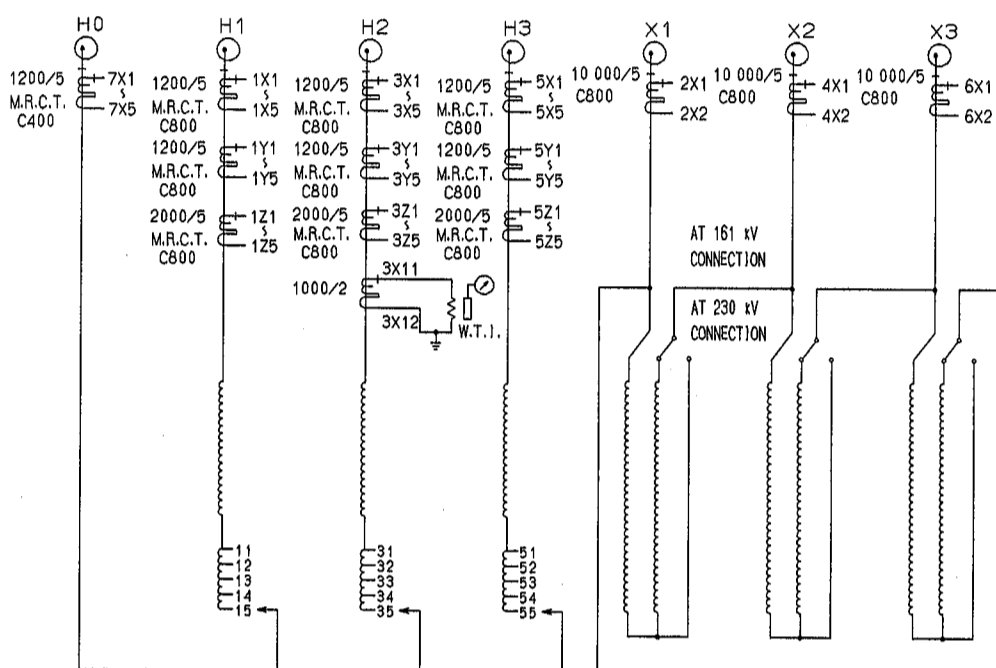
Project		SIEMENS WESTINGHOUSE POWER CORPORATION-ORLANDO, FL	
Name		BLYTE THE ENERGY PROJECT	
SIGNAL TYPES		DATE	
	DMM R. KIRCH M. HURLE L. HERRICK V. S. TASSIE	2002-07-43 2002-07-43 2002-07-43 2002-07-44	
		TITLE	
APP'D J. E. B.		NAME PLATE OF 235MA CT GSU TRANSFORMER (16-220V)	
SCALE 1:1		SOURCE: OMC, INC.	
Hiachi Ltd. Tokyo Japan		SN. / REV. 1 / 1	
311-1TA18884		10	

PURCHASE ORDER NUMBER	SERIAL NUMBER
4500341362	715308-1
4500341369	715308-2

# HITACHI

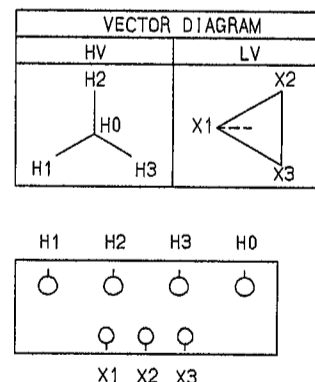
## TRANSFORMER

THREE PHASE			60 Hz	ANSI-C57.12.00-2000		
CLASS		ONAN	ONAF	ONAF	MAXIMUM TEMPERATURE RISE IN OIL 65 °C	
WDG. TEMP. RISE BY RESISTANCE		65 °C	65 °C	65 °C	QUANTITY OF MAIN TANK OIL	6a1
					QUANTITY OF RADIATOR OIL	6a1
MVA RATINGS AT 65°C		156	208	260	APPROXIMATE MASSES	
VOLTAGE RATINGS	HV	161 000GrdY/ 92 953			CORE & WINDINGS	265 000 lb
	HV*	230 000GrdY/132 790			TANK & FITTINGS	145 000 lb
	LV	16 000			MAIN TANK OIL	101 000 lb
IMPULSE LEVELS (BIL)	HV WINDING		650 BIL		RADIATOR OIL	18 000 lb
	HV WINDING*		750 BIL		TOTAL MASS	529 000 lb
	HV WINDING NEUTRAL		150 BIL		UNTANKING MASS	265 000 lb
	LV WINDING		150 BIL		SHIPPING MASS	309 000 lb
PERCENT IMPEDANCE @75°C	% (161 000-16 000 VOLTS .AT 156 000 kVA )				INSULATING LIQUID	INHIBITED OIL
	% (230 000-16 000 VOLTS .AT 156 000 kVA) *				SERIAL NUMBER	
					MONTH/YEAR OF MANUFACTURE	
					PURCHASE ORDER NUMBER	
*:AT 230kV CONNECTION						



HV (DE-ENERGIZED TAP CHANGER)						HV (DE-ENERGIZED TAP CHANGER) *					
POSN.	CONNECTION	VOLTS	AMPERES			VOLTS	AMPERES				
			156 MVA	208 MVA	260 MVA		156 MVA	208 MVA	260 MVA		
1	15.35.55	169 050	533	710	888	241 500	372	497	622		
2	14.34.54	165 025	546	728	910	235 750	382	509	637		
3	13.33.53	161 000	559	746	932	230 000	392	522	653		
4	12.32.52	156 975	574	765	956	224 250	402	536	669		
5	11.31.51	152 950	589	785	981	218 500	412	550	687		
L V		16 000	5 629	7 506	9 382	16 000	5 629	7 506	9 382		

B C T				B C T			
LOCATION	RATIO	CONNECTION	ACCURACY	LOCATION	RATIO	CONNECTION	ACCURACY
H1 H2 H3	100/5 A	1X2-1X3, 3X2-3X3, 5X2-5X3	C800	H0	100/5 A	7X2-7X3	C400
	200/5 A	1X1-1X2, 3X1-3X2, 5X1-5X2			200/5 A	7X1-7X2	
	300/5 A	1X1-1X3, 3X1-3X3, 5X1-5X3			300/5 A	7X1-7X3	
	400/5 A	1X4-1X5, 3X4-3X5, 5X4-5X5			400/5 A	7X4-7X5	
	500/5 A	1X3-1X4, 3X3-3X4, 5X3-5X4			500/5 A	7X3-7X4	
	600/5 A	1X2-1X4, 3X2-3X4, 5X2-5X4			600/5 A	7X2-7X4	
	800/5 A	1X1-1X4, 3X1-3X4, 5X1-5X4			800/5 A	7X1-7X4	
	900/5 A	1X3-1X5, 3X3-3X5, 5X3-5X5			900/5 A	7X3-7X5	
	1000/5 A	1X2-1X5, 3X2-3X5, 5X2-5X5			1000/5 A	7X2-7X5	
	1200/5 A	1X1-1X5, 3X1-3X5, 5X1-5X5			1200/5 A	7X1-7X5	
H1 H2 H3	100/5 A	1Y2-1Y3, 3Y2-3Y3, 5Y2-5Y3	C800	H0	100/5 A	7Y2-7Y3	C400
	200/5 A	1Y1-1Y2, 3Y1-3Y2, 5Y1-5Y2			200/5 A	7Y1-7Y2	
	300/5 A	1Y1-1Y3, 3Y1-3Y3, 5Y1-5Y3			300/5 A	7Y1-7Y3	
	400/5 A	1Y4-1Y5, 3Y4-3Y5, 5Y4-5Y5			400/5 A	7Y4-7Y5	
	500/5 A	1Y3-1Y4, 3Y3-3Y4, 5Y3-5Y4			500/5 A	7Y3-7Y4	
	600/5 A	1Y2-1Y4, 3Y2-3Y4, 5Y2-5Y4			600/5 A	7Y2-7Y4	
	800/5 A	1Y1-1Y4, 3Y1-3Y4, 5Y1-5Y4			800/5 A	7Y1-7Y4	
	900/5 A	1Y3-1Y5, 3Y3-3Y5, 5Y3-5Y5			900/5 A	7Y3-7Y5	
	1000/5 A	1Y2-1Y5, 3Y2-3Y5, 5Y2-5Y5			1000/5 A	7Y2-7Y5	
	1200/5 A	1Y1-1Y5, 3Y1-3Y5, 5Y1-5Y5			1200/5 A	7Y1-7Y5	
H1 H2 H3	300/5 A	1Z3-1Z4, 3Z3-3Z4, 5Z3-5Z4	C800	H0	300/5 A	7Z3-7Z4	C400
	400/5 A	1Z1-1Z2, 3Z1-3Z2, 5Z1-5Z2			400/5 A	7Z1-7Z2	
	500/5 A	1Z4-1Z5, 3Z4-3Z5, 5Z4-5Z5			500/5 A	7Z4-7Z5	
	800/5 A	1Z2-1Z3, 3Z2-3Z3, 5Z2-5Z3			800/5 A	7Z2-7Z3	
	1100/5 A	1Z2-1Z4, 3Z2-3Z4, 5Z2-5Z4			1100/5 A	7Z2-7Z4	
	1200/5 A	1Z1-1Z3, 3Z1-3Z3, 5Z1-5Z3			1200/5 A	7Z1-7Z3	
	1500/5 A	1Z1-1Z4, 3Z1-3Z4, 5Z1-5Z4			1500/5 A	7Z1-7Z4	
	1600/5 A	1Z2-1Z5, 3Z2-3Z5, 5Z2-5Z5			1600/5 A	7Z2-7Z5	
	2000/5 A	1Z1-1Z5, 3Z1-3Z5, 5Z1-5Z5			2000/5 A	7Z1-7Z5	



NOTES  
TANK DESIGNED FOR FULL-VACUUM FILLING.  
LIQUID PRESERVATION SYSTEM OPERATES AT ATMOSPHERIC PRESSURE.  
ALL WINDING ARE COPPER.  
FILLED WITH MINERAL OIL AT TIME OF TESTING WHICH CONTAINED NO-DETECTABLE LEVEL OF PCB (LESS THAN 2 PPM).  
TRANSFORMER DESIGNED FOR STEP-UP OPERATION.  
TRANSFORMER DESIGNED FOR LOADING IN ACCORDANCE WITH ANSI C57.91 ON THE BASIS OF AMBIENT TEMPERATURE.

CAUTION!  
DO NOT OPERATE THE TRANSFORMER WHEN THE OIL LEVEL IS BELOW THE LOW POINT ON THE SCALE.  
DO NOT OPERATE THE 'NO-LOAD DE-ENERGIZED TAP CHANGER' WHEN THE TRANSFORMER IS ENERGIZED.  
INSTRUCTION BOOK NO.KTL-1772 (READ BEFORE INSTALLING OR OPERATING).

**Hitachi, Ltd. Tokyo Japan**

INSTRUCTION BOOK NO.KTL-1772

311-1TA17258-A

REV.	DATE	DESCRIPTION	REVISIONS
1	2001-04-09	DESIGN	
2	2001-04-09	REVISION	
3	2001-04-09	REVISION	
4	2001-04-09	REVISION	
5	2001-04-09	REVISION	
6	2001-04-09	REVISION	
7	2001-04-09	REVISION	
8	2001-04-09	REVISION	
9	2001-04-09	REVISION	
10	2001-04-09	REVISION	

NOTES  
DATA OF BLANKS ARE TO BE ENGRAVED AFTER THE TRANSFORMER IS COMPLETED  
MATERIAL: STAINLESS STEEL  
THICKNESS: 1/32" (1.0)

Project	SIEMENS WESTINGHOUSE POWER CORPORATION-ORLANDO, FL
Name	BLT THE ENERGY PROJECT
Signature	
Date	2001-04-09
Scale	1:1
Drawn	M. KADOMAKI
Checked	M. KADOMAKI
Approved	M. KADOMAKI
Rev.	1
Sh.	1
Rev.	1

Product Order Number	4500341390
Serial Number	715309-1

## **Appendix D**

### **Proposed Spill Prevention, Containment, and Countermeasures Plan for Project Construction**

**SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN**

**BLYTHE ENERGY PROJECT  
TRANSMISSION LINE**

**MINOR MODIFICATIONS TO THE BLYTHE PLANT CONNECTION TO THE GENERATION  
INTERTIE**

**BLYTHE, CALIFORNIA**

*Prepared for:*

Blythe Energy, LLC  
Blythe, California

*Prepared by:*



**TETRA TECH** EC, INC.

**December 2009**



Rob Holt, P.E.  
Senior Engineer

Senda Ozkan, P.E.  
Senior Engineer

**SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN  
BLYTHE ENERGY PROJECT  
TRANSMISSION LINE**

**MINOR MODIFICATIONS TO THE BLTHE PLANT CONNECTION TO THE GENERATION  
INTERTIE**

**BLYTHE, CALIFORNIA**

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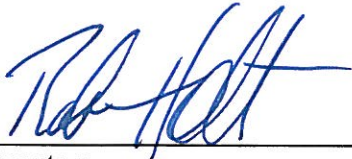
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## CERTIFICATION

I hereby certify that I am familiar with the requirements of the SPCC rule (40 CFR 112), that I or my agent have examined the Blythe Energy Project, that this plan has been prepared in accordance with good engineering practice including consideration of applicable industry standards and with the requirements of the SPCC rule, that procedures for required inspections and testing have been established, and that this plan is adequate for the facility.

Rob Holt, P.E.

  
\_\_\_\_\_  
Signature


01/04/10  
\_\_\_\_\_  
Date

Registration No. 27943 State CA



## MANAGEMENT APPROVAL

Blythe Energy, LLC is committed to the prevention of discharges of oil to navigable water and the environment, and will commit to provide the manpower, equipment and materials required to fully implement this plan and expeditiously control and remove any quantity of oil discharged that may be harmful; conduct periodic integrity testing of the containers; and conduct periodic integrity and leak testing of the valves and piping.



---

Bill Watson  
Blythe Energy Project Transmission Line Construction Manager

## ***1.0 FACILITY OWNER AND CONTACT INFORMATION***

### ***1.1 Owner Information***

The project is owned by Blythe Energy, LLC, Owner/Operator, 15560 West Hobsonway, Blythe, California 92225.

### ***1.2 Facility Identification***

Name:	Blythe Energy Project
Facility Location:	The Blythe Energy Project is located in Blythe, NW 1/4, Section 33, T6S, R22 E, SBB&M, in Riverside County. The site is located approximately 0.25 miles north of the Interstate 10 Freeway and directly east of the Blythe Airport.
County:	Riverside County
State:	California
Mailing Address:	17710 Hobsonway Blythe, CA 92225
Operator of Facility:	FPL Energy Operating Services, Inc.
Telephone:	(760) 619-5366
Name and Address Of Person to Whom Correspondence Should be Sent:	Mr. Bill Watson Construction Manager 17710 Hobsonway Blythe, CA 92225
Name of Person Within Management Who Can Fully Execute the Plan:	Mr. Bill Watson, Blythe Energy Project Transmission Line Construction Manager

### ***1.3 Facility Contacts***

#### **Primary Contact**

Name: Mr. Bill Watson  
Title: Plant General Manager  
Mailing Address: 17710 Hobsonway  
Blythe, CA 92225

Telephone (work): (760) 619-5366  
Telephone (pager/cell): (760) 238-6661

#### **Alternate Contact**

Name: Charlyn Mosley  
Title: Environmental Health and Safety Officer  
Mailing Address: 15560 West Hobsonway  
Blythe, CA 92226

Telephone (work) (760) 922-9950 ext. 230  
Telephone (pager/cell): (760) 831-2651

## **2.0 INTRODUCTION**

### **2.1 Oil Pollution Prevention Regulations**

To prevent spills and minimize pollution, the Clean Water Act authorized the enactment of oil pollution prevention regulations. For nontransportation-related facilities, the U.S. Environmental Protection Agency (EPA) developed oil pollution prevention regulations under Title 40, Code of Federal Regulations (CFR), Part 112. Under 40 CFR 112 (the SPCC Rule), these regulations apply to nontransportation-related facilities that:

- Could reasonably be expected to discharge oil or petroleum based products (hereafter referred to as oil) into or upon the navigable waters of the United States; and
- Have total aboveground oil storage capacity of over 1,320 gallons of oil or total underground storage capacity of over 42,000 gallons.

Any project construction and facility meeting these criteria is required to comply with 40 CFR 112 by implementing certain spill prevention measures during construction and by preparing a Spill Prevention, Control and Countermeasures (SPCC) plan for the project construction that documents the implementation of these required spill prevention measures.

By federal law a project construction could be exempt from SPCC requirements when located far from navigable waters. However, the State of California, under the California Aboveground Petroleum Storage Act (California Health and Safety Code, chapter 6.67, Section 25270 et al), also requires an SPCC plan to be prepared in accordance with 40 CFR 112 for constructions and facilities with oil storage tanks installed above ground water.

Major elements of SPCC requirements as outlined in 40 CFR 112 include: bulk storage volume and location of oil or petroleum containing products, the prediction of spill locations, secondary containment provided in the event of a spill, and details about security, safety, training, inspections, and spill response.

Blythe Energy currently performs its facility operations under a certified SPCC plan dated February 27, 2007 and revised at September 23, 2009. However, the facility operations SPCC does not cover construction activities on site. The SPCC plan herein addresses Blythe Energy's recently requested staff-approved project modification that will allow for the use of the Western Buck Boulevard Substation to interconnect directly from the Blythe Energy Plant to the Blythe Energy Project 230kV Transmission Line. This construction SPCC plan covers temporary construction activities only. After construction is complete, operation of the plant will continue as before.

This plan conforms with all SPCC guidelines and includes updates from the latest regulatory changes to 40 CFR Part 112 – Oil Pollution Prevention and Response; Non-Transportation-Related Onshore and Offshore Facilities; Final Rule, effective August 16, 2002.

### **2.2 SPCC Rule Cross Reference**

The SPCC Rule requires cross-referencing of the required components contained in the plan to the updated requirements within 40 CFR 112 where the SPCC Plan does not follow the newly reorganized

sequence of sections. Table 1 on the following page lists the sections of the Final SPCC Rule where the text of this plan is affected, the applicable section in this SPCC Plan, and the topics covered by those sections.

<b>Table 1</b>		
<b>Final SPCC Rule</b>	<b>SPCC Plan Section or Page Number</b>	<b>Contents</b>
112.1	Section 2.1	Scope and Applicability of SPCC Rule
112.3(d)	Certification Page (pg. iii)	Certification of Professional Engineer
112.4(a)	Section 9.3	Notification of Significant Discharge
112.5	Section 9.0	Review Requirements
112.7, 112.7(a)	Section 2.0	General Requirements
112.7(b)	Sections 5.0 and 6.0	Fault Analysis
112.7(c)	Section 5.0	Secondary Containment
112.7(d)	Section 8.0	Contingency Planning
112.7(e)	Section 7.0	Inspections, Tests, and Records
112.7(f)	Section 7.4	Training
112.7(g)	Section 7.2	Security
112.7(h)	Section 5.3	Loading/Unloading
112.7(i)	Section 7.1.1	Brittle Fracture Evaluation
112.7(j)	Section 2.0	State Requirements
112.8, 112.12	Section 2.0	Requirements for onshore facilities.
112.8(b), 112.12(b)	Section 6.0	Drainage
112.8(c), 112.12(c)	Section 4.2	Bulk Storage
112.8(d), 112.12(d)	Section 5.2	Facility Transfer Operations

### **3.0 SITE DESCRIPTION**

#### **3.1 Facility Operations**

Blythe Energy, LLC is currently operating a 520 Megawatt natural gas-fired, combined cycle power plant located just north of Interstate 10 and approximately 3 miles west of the City of Blythe, Riverside County, California (see Figure 1).

#### **3.2 Facility and Project Description**

The Blythe Energy Project (BEP; the Site) includes the power block area, two lined evaporation ponds, and a storm water retention basin. The power block area consists of the two natural gas powered generators and one steam powered generator housed in the turbine building, two heat recovery steam generators and exhaust stacks, three main step-up transformers, two auxiliary transformers, cooling towers, and various support buildings related to facility operations. The Buck Boulevard Substation is owned by the Western Area Power Administration (Western) and is located adjacent to the BEP.

Blythe Energy's fifth request for a staff approved project modification, addressed in this SPCC, will allow for the use of Western's Buck Boulevard Substation to interconnect directly from the Blythe Energy Plant to the Blythe Energy Project 230kV Transmission Line. The 67-mile 230 kV Blythe Energy Project transmission line is being constructed from Blythe to SCE's Julian Hinds Substation; however, to complete this connection the Buck Boulevard Substation needs to be converted from its current 161 kV operating voltage to 230 kV. The staff approved project modification request includes conversion of the step-up transformers within the Buck Boulevard Substation.

The substation conversion involves temporary removal of transformer insulating fluid from the transformers. Following the conversion, the transformers will be vacuum-treated and refilled with the insulating fluid. Scheduled plant outages will be required to perform this work, during which time a 2MW portable generator and 2500 KVA portable step-up transformer will be available for use as a back up power supply to maintain lights and electrical services. Thus, the work involves a small potential for spillage during fluid transfer and temporary storage of insulating fluid and the potential for spills associated with diesel fuel use and storage of portable generator and transformer.

#### **3.3 Site Hydrogeology**

The Site is located within the Colorado River Basin. Hydrogeology in the project area is described in the United States Geological Survey (USGS) Professional Paper 486-G "Geohydrology of the Parker-Blythe-Ciobola Area, Arizona and California" (1973). In addition, the California Department of Water Resources (DWR) and USGS have performed a number of other studies. The USGS and DWR collected hydrologic data in the site vicinity until 1978. Data since that time has not been collected on a systematic basis by any agency.

Ground water in the vicinity exists primarily under unconfined (water table) conditions. Flow is generally from north to south. Ground water recharge occurs as a combination of Colorado River water to the east, subsurface inflow from the Chuckwalla Basin and both surface and subsurface inflow from Palo Verde Valley drainage systems to the west, and recharge from precipitation infiltration.

Ground water levels in the area fluctuate seasonally in response to the stage of the Colorado River, precipitation infiltration, and applied irrigation water. The average depth to ground water beneath the subject site is approximately 89 feet below ground surface (bgs). However, where perched aquifers are present, depth to ground water may be as shallow as 6 to 7 feet bgs. The average thickness of the regional aquifer in the site vicinity is 300 feet.

### *3.3.1 Beneficial Ground Water Uses*

The beneficial uses of waters in the Colorado Hydrological Unit are as follows:

- a. Municipal Supply
- b. Industrial Supply
- c. Agricultural Supply

### *3.3.2 Site Ground Water Use*

Local ground water is used as a water supply for the Blythe Energy Project. The source of all water will be from two (2) installed on-site ground water production wells (PW-1 and PW-2). These wells are equipped with pumps submerged at a depth of approximately 400 to 420 feet bgs and sized to convey 2500 gallons per minute (GPM) each. PW-1 is screened from 160 to 580 feet bgs with a total depth of 600 feet, and PW-2 is screened from 140 to 600 feet bgs and has a total depth of 620 feet. The current static ground water level is approximately 89 feet bgs. Based on an average specific capacity of 50 GPM per foot, each well is expected to be capable of producing 2500 GPM with a draw-down of approximately 50 feet.

The ground water in the project area is of drinking water quality. The water is generally either sodium sulfate or sodium chloride enriched and has an average total dissolved solids concentration of 1,000 g/L. Ground water must be treated prior to use in the site process.

## *3.4 Site Surface Hydrology and Storm Water Runoff*

The Site is not within the immediate vicinity of any significant surface water bodies. The nearest significant surface water body is the Colorado River located approximately 9 miles due east. Storm water discharge from the project site is regulated under the statewide Amended General Industrial Activities Storm Water Permit. The Blythe Energy Project utilizes BMPs as the primary means of controlling erosion at the site. An unlined storm water retention basin is located south of the power block facility on the southern perimeter of the property. The drainage plan for the Site is discussed in Section 6.2.

### *3.4.1 Beneficial Surface Water Uses*

The beneficial uses of waters in the Colorado River are as follows:

- a. Municipal Supply
- b. Industrial Supply
- c. Agricultural Supply
- d. Ground Water Recharge
- e. Aquaculture
- f. Water Contact Recreation

- g. Noncontact Water Recreation
- h. Warm Water Habitat
- i. Wildlife Habitat
- j. Preservation of Rare, Endangered or Threatened Species
- k. Cold Freshwater Habitats

### **3.5     *Site Geology***

The project site is located in the Colorado Desert Section of the Basin and Range physiographic province. Basins contain several thousands of feet of alluvium including unconsolidated to weakly consolidated sand, silt and gravel. In particular, the Site falls within the lower Colorado River Basin and is located on an alluvial terrace formed by historic river aggradation and degradation.

No active or potentially active faults are known in the area. The nearest active fault is the southern segment of the San Andreas Fault, located about 60 miles southwest of the project area near the Salton Sea. The potentially active Blythe Graben Fault is located approximately 10 miles north of the site.

### **3.6     *Site Topography***

The Site is relatively flat sloping gently to the southeast. Natural elevation ranges from 330 to 360 feet above mean sea level. Much of the site has been graded for construction activities. Site topography is shown in Figure 2.

### **3.7     *Climatology***

The annual precipitation in the Site area is approximately 3.6 inches and the average temperature is 73.6 degrees Fahrenheit. The evaporation rate is approximately 90 inches annually.

### **3.8     *Land Uses***

Land uses at and surrounding the construction site consists of the following:

- a) Formerly and currently irrigated agricultural parcels
- b) Blythe Municipal Airport (adjacent to the west)
- c) Various maintained residences and outbuildings
- d) Scattered grazing land
- e) Open desert land
- f) Riparian and wildlife habitat

## **4.0 OIL USE AND STORAGE**

Blythe Energy Project facility operations under the current SPCC dated September 23, 2009, identifies bulk storage of oil products within the facility and discusses their conformance to the SPCC Rule. This construction SPCC addresses temporary oil storage associated with the project modification.

### **4.1 Identification of Oil Products**

Oil products used for this project at the Site with bulk temporary storage volume, use, and storage area is listed in Table 2.

<b>TABLE 2 STORAGE AND USE OF OIL PRODUCTS</b>			
<b>Oil Products</b>	<b>Volume (Gallons)</b>	<b>Use</b>	<b>Storage/Use Area</b>
Nitro 10 GBXT	16,500 (x3)	GSU Transformers	Electrical Equipment/ Temporary Storage in Tanker Trucks
Diesel	1,250	Portable 2 MW Generator	Temporary Storage at South of CTG1
Hyvolt II Mineral Oil	800	2500 KVA Portable Step-up Transformer	Temporary Storage at South of CTG1

Note: (x3) denotes multiple pieces of electrical equipment or storage tanks with identical storage capacity.

### **4.2 Oil Use and Storage**

All oil products are temporarily stored and used within, or adjacent to, the power block area. Figures 3 and 4 show the BEP site layout and the power block area.

Five transformers are located in the power block area to the east of the turbine building. Both natural gas turbines and the steam generator are provided with one main GSU transformer (STG1, CTG1, and CTG2). Each transformer contains Nitro 10 GBXT used as insulating fluid circuit breaker. These transformers are installed above concrete on concrete pedestals and have secondary containment moats sized for 200 percent containment. The operational SPCC dated February 27, 2007 details the spill management measures of these transformers. This project modification requires that approximately 16,500 gallons of insulating fluid be removed from the transformer tanks to gain access to the connections that need to be changed to make the voltage conversion inside the transformer. The fluid removed from the transformers will be contained in up to three commercial tanker trucks, which will leave the site during the conversion and return back to the site after the conversion is completed to refill the transformers. Should additional work crews be available, two transformers may be converted at once, resulting in a maximum of six tanker trucks arriving/departing the site concurrently.

A portable 2 MW diesel generator with a 2,500 KVA portable step-up transformer will be brought on site as a backup power supply, in the event that an extended outage of the auxiliary power supply (the 230-kV

transmission line) occurs. The diesel generator has its own 110 percent spill containment for onboard engine fluids. The portable transformer is a closed unit. While conversion of the transformers would be completed in approximately seven days per transformer (total required time would be less if two transformers are converted simultaneously), both pieces of equipment will be staged on-site during the entire plant outage scheduled for June 2010. This outage would last for up to 25 days due to other operational needs. The equipment specifications of these units along with Material Data Safety Sheet (MSDS) are included in the project modification request.

The portable generator and the transformer will be staged on south of CTG1 as shown in Figure 4. Figure 5 includes photographs of the transformers, permanent containment moats, portable generator and transformer location.

### ***4.3 Discharge Prevention Measure***

The Blythe Energy facility employs the following prevention and containment measures to reduce the likelihood of a release of oil from any of the bulk storage or non-bulk storage containers located at the plant. These bullet items are discussed in further detail throughout this plan.

- Impervious concrete secondary containment has been constructed around all small bulk oil storage tanks and oil-filled electrical equipment. This project involves stationing one portable transformer which does not have a secondary containment. The containment procedure is explained in Section 4.2.
- Transfer lines have been equipped with closure valves.
- Regular inspection procedures have been instituted to detect problems before they cause an oil spill incident.
- Electrical transformers are monitored by supervisory low-level oil alarms that notify plant employees if a problem occurs. In these types of events, a response person is dispatched immediately.
- A supply of basic oil spill response equipment is stored at the facility for immediate response and spill control.
- All aboveground tanks and fuel oil piping systems are visually inspected daily, weekly, and monthly for signs of deterioration or leaks.
- Pipeline supports have been designed to minimize abrasion and corrosion.
- Tank trucks are provided with temporary secondary containment to hold the volume of the largest compartment of a tank truck that unloads at the facility. Tank trucks are inspected prior to unloading and after receipt. Strict unloading procedures are followed during oil transfer operations.
- Plant personnel have been trained to use standard procedures during tanker truck offloading operations.

- During each transfer operation, the Operator coordinates the unloading operation with the tanker truck driver.
- The tanker truck driver and Operator have constant, direct communication during transfer operations.
- Tank truck unloading procedures meet the minimum requirements and regulations established by the Department of Transportation (DOT). These include setting up a barrier to prevent a truck from leaving before completion of unloading and checking of tank drains and connections before departure.
- Drain valves on tanks at the plant are locked in closed position when in non-operating status.
- Starter controls on all oil pumps are locked in the "off" position and are accessible only to authorized personnel.
- A chain link security fence surrounds the entire site.
- Adequate lighting has been installed at the plant to permit surveillance of the facility.

## **5.0 SPILL PREDICTION AND CONTAINMENT**

The SPCC Rule requires the identification of locations and scenarios for potential spills and spill containment measures including secondary containment provided at the facility.

Potential spill areas at the Site include all storage areas discussed in Section 4.2. The spill potential and secondary containment berm for the tanker trucks, portable generator and portable transformer are discussed in Section 5.1 below.

### **5.1 Spill Prediction and Containment**

#### **5.1.1 Commercial Tanker Trucks**

Insulating oil from the transformers will be transferred up to three commercial tanker trucks which will leave the site during the conversion and return back after the conversion is completed to refill the transformers. At a maximum, should two transformers be converted simultaneously, up to six tankers would be arriving/departing the site during the same time period. Because the tanker trucks are not staged on site, no secondary containment measure is required for them. Usual spill management measures outlined for facility transfer operations and tank loading and unloading procedures as detailed in operations SPCC dated February 27, 2007 will be followed during the transfer of insulating oil.

#### **5.1.2 Portable 2 MW Generator**

The portable generator holds 1,250 gallon diesel tank and has its own 110 percent spill containment for onboard engine fluids. It in the event of a rupture, leak, or spill from the tank, the diesel fuel would be completely retained within the secondary containment provided.

#### **5.1.3 Portable 2,500 KVA Transformer**

The portable transformer holds 800 gallons of mineral oil. A temporary berm of gravel, concrete blocks, or sand bags will be installed and visqueen impermeable liner will be laid under the transformer to contain a potential spill sized for 110 percent containment.

The SPCC Rule requires secondary containment equal to the volume of the largest tank within the containment, in addition to the volume of precipitation from a 100-year, 24-hour storm event if the containment area is exposed to precipitation. The secondary containment structure provided must be constructed of a material that is sufficiently impervious to contain the spilled oil.

A 100-year, 24-hour storm for the Blythe area is approximately three inches. For this analysis a precipitation value of six inches (0.5 feet) was used to ensure an extra margin of safety. The secondary containment calculation of the main transformers for oil storage is given in Appendix A.

In the event of a spill, release rate could vary substantially from a small release of a few ounces per minute to an instantaneous release of the entire transformer's contents. If a spill of insulating oil escaped the containment berm, the oil would travel to the east following the grading of the site and drain into the culvert and ditch system, ultimately ending up in the storm water retention basin, depending on the size of the spill.

## **6.0 SITE DRAINAGE**

### **6.1 Site Grading**

As discussed in Section 3.6, the natural topography of the surrounding area has a slight slope toward the southeast. However, the Site has been graded to provide controlled drainage and capture of storm water and potential spills over the entire property. Proper grading also prevents the pooling of storm water or other incident water from facility activities. In general, grading provides drainage away from buildings and concrete skids provided for oil storage. The Site has been graded with a very low slope to reduce erosion and provide sheet runoff of precipitation. The drainage and collection of storm water is discussed in Section 6.2.

### **6.2 Drainage Plan**

The Site has been graded to facilitate efficient runoff of storm water at the facility. Runoff from the Site is managed to prevent the release of potentially contaminated storm water from the facility. This is accomplished at the Blythe facility by capturing all storm water generated at the Site. All drainage from the Site is intercepted and diverted to either the oil water separator or to the storm water retention basin. The areas of the Site drained by each are discussed in the subsections below.

#### **6.2.1 Oil Water Separator**

The oil water separator receives water from various locations within the power block area. It is designed to receive water possibly contaminated with oil, grease, or petroleum distillates to prevent the contaminated water from being discharged to the storm water retention basin or to soil. It is located in the northwest of the power block area just south of the control room building. The oil water separator has a capacity of 25,000 gallons.

Sumps and floor drains are provided throughout the power block area to collect area washdown, sample drainage, condensation, and other drainage from facility equipment areas. Sumps and drains are located in the water treatment plant, cooling towers, HRSG stack drains, fire pump house, workshop storage area, feedwater pump house, and throughout the gas turbine building. Water entering the sumps and drains is piped to the oil water separator. Storm water drainage from the five transformer secondary containment areas also enters the separator.

Effluent from the oil water separator is concentrated at the water treatment area and then directed to one of the two evaporation ponds. In the event of visible oil sheen in the separator the top layer is skimmed off and removed with a vacuum truck to be disposed of as waste.

#### **6.2.2 Storm Water Retention Basin**

Much of the exposed surface of the soil at the Site is unpaved and unsealed and will allow infiltration of precipitation from light rainfall events. The majority of the exposed paved areas are provided with drains that lead to the oil water separator as discussed above. Storm water from a storm event that causes surface runoff will drain to and accumulate in the storm water retention basin. The retention basin is located at the southern boundary of the Site. It is the destination for runoff from all areas of the property not drained to

the oil water separator. The basin is constructed of compacted soil with a total capacity of over 44.8 million gallons. Storm water from the Site will collect and be stored here until it evaporates or infiltrates through the walls and floor of the basin.

Grading of the power block area provides sheet flow of storm water to culverts installed around the perimeter of the power block. The culverts drain to the retention basin. Grading surrounding the evaporation ponds and storm water retention basin directs run-off from those areas to culverts draining to the retention basin. The retention basin also receives runoff water from Buck Boulevard on the east border of the Site. Figure 6 shows the drainage plan for the Site.

### **6.3     *Drainage from Contained Areas***

Drainage in contained areas is required in the event of precipitation accumulation or a failure in primary containment. Precipitation will only affect the containment surrounding the five transformers. The other above ground oil storage tanks are installed within enclosed buildings and protected from precipitation.

All of the transformer secondary containment areas are provided with sumps to collect fluid accumulation at the lowest point in the containment area. The containment areas are provided with manually operated gate valves that are normally closed. Drainage of contained areas can proceed only after authorization by the Plant Manager or Production Manager. In the event of precipitation, the rainfall accumulation is inspected for visible evidence of contamination before being released to the oil water separator. Facility personnel must document the release of rainwater accumulation. The time of release and general appearance of the water must be recorded. Storm water bypass event records are kept onsite in the compliance file room. Following release of the water the valve is closed.

### **6.4     *Drainage from Uncontained Areas***

The SPCC Rule requires a discussion of drainage from uncontained areas. Uncontained areas include all areas of the Site, outside and inside of buildings, except secondary containment areas and those areas not provided with drains leading to the oil water separator. Drainage in the uncontained areas of the Site follows the patterns shown in Figure 6 and as described in Sections 6.1 and 6.2.2. All drainage in uncontained areas is directed to the storm water retention basin.

In the event of a spill or release of oil that escapes secondary containment, all of the oil will be contained on-site as the runoff will be diverted through culverts and captured in the storm water retention basin.

## **7.0 COMPLIANCE, REPORTING, AND RECORDS**

### **7.1 *Inspections and Integrity Testing***

Blythe technicians are regularly in the vicinity of tanks, piping, and other equipment used for the transfer, use, and storage of oil. During walk-through inspections of the power block area, technicians are trained to recognize and be responsible for spills or leaks. Site personnel conduct visual inspections daily during normal operating conditions to ensure that the condition of tanks, secondary containment, pumps, piping, and ancillary equipment are in proper condition so that a spill or leak does not occur as a result of poor equipment condition.

Site personnel conduct annual inspections to ensure a thorough evaluation of equipment and conditions at the Site. Annual inspection forms are kept in the compliance file room. Integrity testing of the lubrication tanks and fire pump fuel tank is conducted as part of the annual inspection and following the performance of material repairs on the tank.

Visual inspection must be combined with another testing technique such as hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emission testing, or other system of non-destructive shell testing. Integrity testing must also be performed periodically on piping and valves associated with the transfer of oil products outside of secondary containment.

The requirement to perform integrity testing on the tanks may be replaced by performing thorough monthly inspections. Monthly inspections would eliminate the requirement for integrity testing as all tanks are provided with adequate secondary containment and are constructed of appropriate materials and workmanship to reduce the potential for internal corrosion.

Completed inspection and integrity testing records are to be kept at the Site for three years. Sample inspection forms are located in Appendix B.

#### **7.1.1 Brittle Fracture Testing**

The SPCC Rule requires evaluation for field-constructed aboveground containers undergoing repair, alteration, reconstruction, or change in service that might affect the risk of a discharge or failure due to fracture. There are no field-constructed aboveground storage tanks at this facility; therefore, this evaluation is not applicable. Should such a tank be installed, a brittle fracture analysis will be conducted at the Site before repair or alteration of this tank.

### **7.2 *Security***

The objective of the plant's security system is to prevent unknowing entry, minimize the possibility of unauthorized entry to the facility, maximize the personal protection of employees operating the facility and prevent the accidental spill of any oil. Security provisions at this facility include:

- Chain-link security fencing surrounding the entire site to meet safety and security requirements. (Materials & installation conform to accepted standards for fencing).

- Master flow & drain valves on all oil-handling equipment have adequate security so that they remain in the closed position when in non-operating or non-standby status.
- Starter controls on oil transfer pumps are locked in the off position and are located at a site accessible only to authorized personnel when the pump is in a non-operating or non-standby status.
- Site remains locked during non-working hours.
- Adequate night lighting is provided to permit surveillance of the facility, deter vandalism and aid in the discovery of a discharge.
- Authorized visitors are allowed access into the plant through the front gate only and generally allowed access to one of the administrative buildings or offices only (A visitor must provide identification, affiliation, and approval of the person(s) to be seen before being allowed to enter).

### **7.3 *Responsibility For SPCC Plan***

The SPCC Rule requires that one person be primarily responsible for spill prevention at the facility. At the Blythe facility the primary responsibility belongs to Bill Watson, Blythe Energy Project Transmission Line Construction Manager.

### **7.4 *Personnel, Training, and Spill Prevention Procedures***

This section describes procedures for personnel training and spill prevention. Because work will be done within the BEP, personnel associated with facility operations may be responsible for reporting and responding to a spill associated with construction. Therefore, elements of the facility operations SPCC related to personnel training are included here. Construction personnel will be given similar training prior to conducting work onsite.

Spill prevention is a component in employee training at the Blythe facility. New employees are given intensive training in the proper operation of processes at the facility, of which spill prevention is a factor. Annual training is also required for each employee. In addition to formal training, technicians receive on-the-job training in the operation of equipment related to their specific responsibilities. This training serves to prevent spills from occurring during operations, as employees properly trained in operation of the plant equipment will be less likely to make a mistake that would cause a release of oil. Each trainee receives a certificate of completion showing the level of training successfully completed under the trainee's job description. Training documentation is maintained in the plant training files. Sample training checklists are included in Appendix C. Training records are to be kept at the Site for three years.

Plant Operating Procedures (POPs) are in place for operations conducted to run the generating facility, including Power Block Operations and Truck Unloading. These POPs contain step-by-step descriptions of how to correctly conduct each task. Each POP consists of the following elements: safety procedures, system checklists and special requirements, detailed operating procedures, troubleshooting, and, where applicable, equipment specifications.

All new employees that will be involved with plant operations are given Hazardous Materials Awareness training. This provides personnel with an understanding of the hazardous materials used at the facility including the recognition and reporting of spills. In accordance with 29 CFR 1910.120, emergency

response personnel must also successfully complete Hazardous Waste Operations (HAZWOPR) training, or equivalent, including topics on personal protective equipment, basic spill control and containment, and decontamination and disposal procedures. This qualifies emergency response personnel to provide initial response to a spill, including the blocking of the spills flow and notification of external responders such as the Fire Department. Emergency response personnel are required to complete annual refresher training covering HAZWOPER and emergency response training.

More specific training is provided for all oil-handling personnel onsite. This applies to any employee working with the oil products covered in this plan or equipment associated with those products. This training covers the operation and maintenance of equipment to prevent the discharge of oil, discharge procedure protocols, applicable pollution control laws, rules, and regulations, general facility operations, and the contents of the facility.

Briefings are held at a minimum of once a year following initial training for oil-handling employees. These ensure an adequate understanding of the SPCC Plan, describe known discharges according to 112.1(b), or failures, malfunctioning components, and recently developed precautionary measures to prevent future spills.

Daily safety meetings are held at the Site covering a wide range of safety issues including information such as a discussion of spill prevention measures and case histories of spills to ensure that employees are aware of the potential causes and effects of a spill.

Records of all training meetings, including the names of all attendees, the date of the meeting, and subjects covered are maintained at the Site.

## **7.5     *Spill History***

There is no history of spills at the Site. In the event of a spill, records will be maintained at the Site for three years from the time of the incident.

Spill reporting records include the date, amount spilled, amount recovered and cause of spills that have occurred. Spills are recorded regardless of reportable quantity, i.e., there is no lower volume limit below which spills are not recorded. Spill history records are maintained in the compliance file room.

## **7.6     *Facility Response Plan***

Facilities governed under The SPCC Rule are required to perform a screening to determine if a Facility Response Plan should be developed. Screening values are compared to the facility's location in relation to different water bodies, total volume of oil storage capacity, spill history, and containment capabilities. A Facility Response Plan must be prepared for those facilities that exceed any of the screening levels established.

The Blythe Energy facility was below all screening levels. Therefore, a Facility Response Plan is not required for this Site. A Certification of the Applicability of the Substantial Harm Criteria Form is included as Appendix D.

## **8.0 SPILL CONTINGENCY PLANNING**

Spill notification, response, and reporting procedures are in place in the event of a spill at the Site. This and other related information is included in several plans prepared for the Site. These plans are discussed in Section 8.1. Procedures to be followed in case of a spill are summarized in Sections 8.2 through 8.4 below.

### **8.1 Other Site Plans**

Blythe Energy has prepared numerous plans created to ensure safe operations at the Site. Each plan contains information related to either the oil products discussed in this plan, spill prevention, or spill response. The appropriate plan should be consulted for information or procedures not contained in this SPCC Plan. A summary of information contained in each is discussed below. A copy of each plan is located in the control room at the Site.

#### **8.1.1 Spill Management Plan**

The Spill Management Plan (SMP) details the specific steps to be followed in the event that a chemical spill is detected at the Site. Aspects of the plan include: spill notification and reporting, clean-up procedures, and sampling requirements following a spill. Aspects of this plan are included in the summary in Sections 8.2 through 8.4.

#### **8.1.2 Health and Safety Plan**

The Site Health and Safety Plan (HASP) contain detailed information about all health and safety issues at the Site. Portions of this plan cover issues related to oil product use and storage at the Site and prevention of spills.

#### **8.1.3 Emergency Response Plan**

A detailed and site-specific Emergency Response Action Plan has been prepared for Blythe Energy. A portion of this plan covers procedures to be implemented in the event of an oil release at the Site. Portions of this plan are included in the summary in Sections 8.2 through 8.4. The complete plan is included as Appendix E.

#### **8.1.4 Material Safety Data Sheets**

Material Safety Data Sheets (MSDSs) are required to be kept at the Site for all chemicals including oil products used or stored at the facility. The MSDSs include information on handling and storage, accidental release measures, and hazards identification.

### **8.2 Spill Response Procedures**

Proper actions must be taken in the event of a spill or release of oil products to:

- Prevent or minimize the spill from reaching waterways.

- Control the source of the spill.
- Make proper notifications internally as well as to external agencies.
- Conduct appropriate cleanup actions.
- Obtain the necessary information to allow post-incident evaluation.

In the event of a spill, the internal notification procedures and responsibilities are as described generally below. A sample spill reporting form is included in Appendix F.

#### During Normal Business Hours

1. Any person detecting a chemical release or spill shall immediately contact the Control Room of the affected unit. Site personnel will isolate and/or control the spill or leak if it is safe to do so. The Control Center Operator shall notify the Production Manager.
2. If the situation is an emergency, the Control Center Operator shall initiate the emergency response signal. If the situation is immediately dangerous to human life or health the operator shall also call 911.
3. Within 24 hours of the spill/release, the Production Leader shall ensure completion of the Spill Report and Accident/Incident Report Forms, and forward the forms to the Compliance Team. Spill Reporting Forms are located in the compliance file room.
4. Perform normal spill leak cleanup activities under the direction of the Production Leader in coordination with the Production Manager immediately after the spill/leak has been stopped and reported.

#### After Normal Business Hours

1. Any person detecting a chemical release or spill shall immediately contact the Control Room. The Control Center Operator shall notify the On-call Manager and provide the following information:
  - Exact location of spill/leak.
  - Types of fluid spilled/leaked and any soil contamination.
  - Estimated quantity of fluid spilled/leaked.
  - Current condition of spill/leak.
  - Clean-up action taken, if any.
2. If the situation is an emergency, the Control Operator shall initiate the emergency response signal.
3. The Production Leader is responsible for the completion of the Spill Report and Accident/Incident Report forms.
4. Perform normal spill leak cleanup activities under the direction of the On-call Manager/Production Leader immediately after the spill/leak has been stopped and reported.

### **8.3     *Spill Cleanup and Disposal***

The Blythe Energy facility is stocked with basic cleanup and spill control equipment. Cleanup materials are kept in the water treatment and cooling tower areas as well as near each of the three lubrication oil tanks to facilitate access by emergency response personnel. Plant personnel restock the spill kits as necessary. A spill control and cleanup inventory list is given in Appendix G.

The properly trained shift personnel will provide response for minor spills at the Site. The properly trained shift personnel will be responsible for stopping the flow of the spill, containing the spill, and cleaning up the spill. Spill cleanup shall only be performed by those employees or contractors with proper training and experience. Proper personal protective equipment (PPE) shall be worn at all times while handling spilled oil or oil contaminated materials. All spilled oil, sorbent materials used to soak up spilled oil, oil contaminated soil, and affected PPE shall be placed in 55-gallon drums for disposal at an appropriate facility. Samples of oil impacted soil may be obtained and analyzed in a laboratory to determine appropriate disposal locations. Appendix H covers waste management at the site in greater detail. Portions of the waste management apply to oil and spilled oil at the site. Appendix H should be referenced in the event of a spill that requires cleanup and disposal.

Should a spill occur that can not be handled by site personnel, efforts will be made to stop the spill from spreading as much as possible until assistance arrives. Several contractors have been selected by the Blythe Energy facility to respond to larger spills that can not be handled by site personnel and equipment onsite. These contractors are:

MP Environmental  
3045 S. 51<sup>st</sup> Avenue  
Phoenix, AZ 85043  
(800) 833-7602

### **8.4     *Notification of Regulatory Agencies***

Should a spill occur that cannot be controlled and contained onsite, resulting in a spill to the environment, several agencies are to be notified of the spill. The Plant Manager is responsible to perform these notifications. The following provides a listing of the agencies to be notified.

National Response Center	(800) 424-8802 (For spills that threaten or enter navigable waters)
State Office of Emergency Services	(800) 852-7550
Fire Department	(800) 992-4494

Information contained in the internal Spill Report Form shall be used to report a spill to the above regulatory agencies. Also, spills reported to regulatory agencies shall be documented in a telephone call summary report or similar documentation.

## **9.0 SPCC PLAN REVIEW AND AMENDMENT PROCEDURES**

This SPCC Plan is effective for a period of five years from its certification. The plan must be reviewed by the owner or operator and amended as necessary at least every five years. The review will assess the ability of this SPCC plan to provide adequate spill prevention and response at the facility to satisfy current conditions, available technology, and regulations. A signature page documenting review events is located in Appendix I.

The SPCC Plan must be amended within six months of the review under the following circumstances:

- There has been a change in the facility that affects the facility's potential for discharge of oil.
- A more effective prevention and control technology is available since the last review.
- A spill of over a threshold volume has occurred at the facility that prompts changes mandated by the Regional Administrator.

A registered professional engineer (PE) must certify any technical amendment to the SPCC plan. Non-technical changes (phone number, contact names, etc.) do not require a PE certification. Appendix J contains any amendments and PE certifications, if required, that do not require a complete revision of this plan.

### **9.1 Facility Change**

The SPCC Plan must be amended whenever there is a change in the facility design, construction, operation, or maintenance that would affect the facility's potential for a discharge as defined by 112.1(b).

### **9.2 Technology Change**

The SPCC Plan must be amended to include more effective prevention and control technology if: (a) such technology will significantly reduce the likelihood of a discharge as described in 112.1(b) from the facility, and (b) if such technology has been field-proven at the time of the review.

### **9.3 Spill Occurrence**

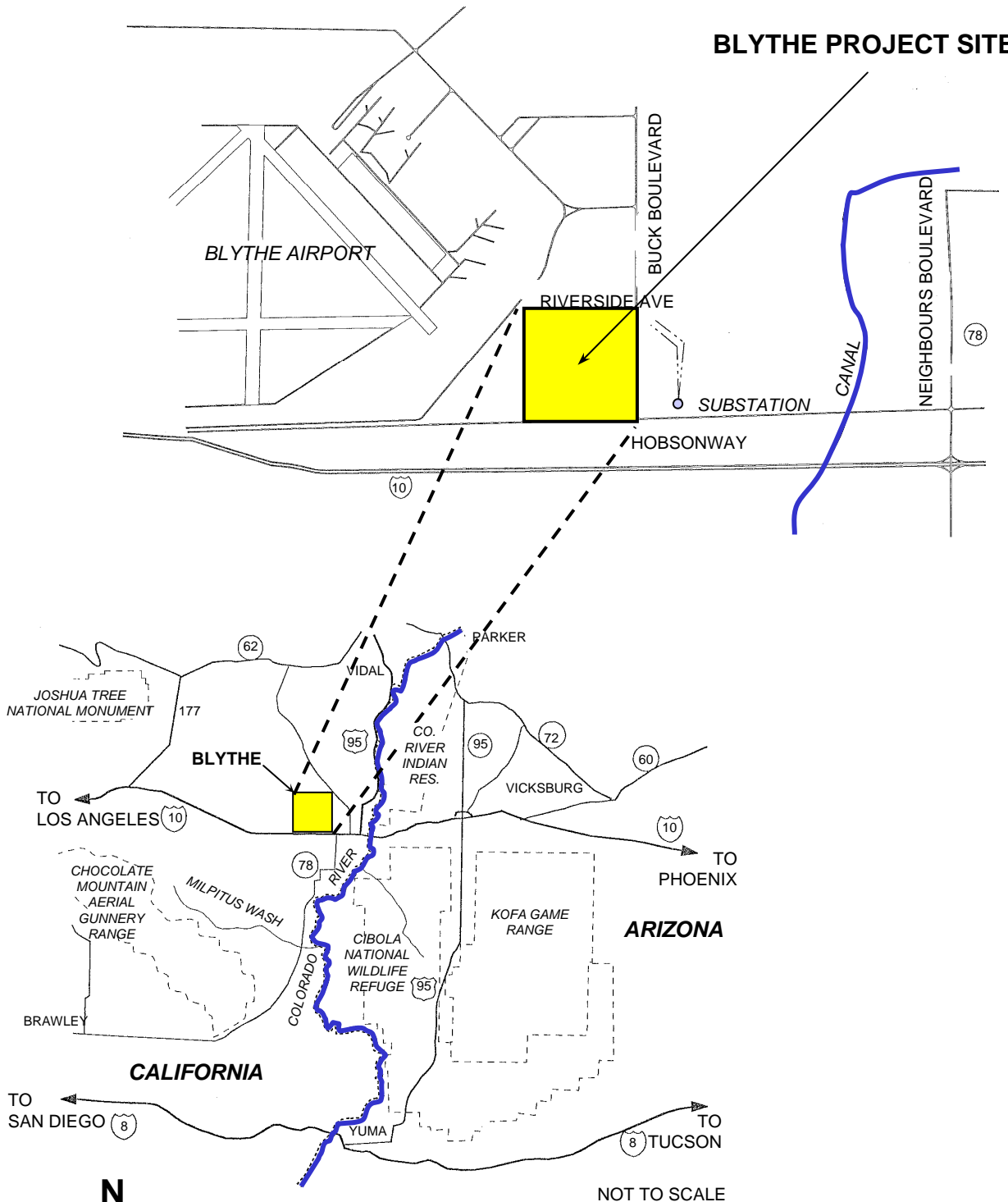
An amendment to the SPCC plan may be required when a facility experiences discharges (as defined in 112.1(b)) classified by either of the following:

- A discharge of more than 1,000 gallons of oil in a single spill event.
- Discharges of oil over 42 U.S. gallons in two spill events within any twelve-month period.

When one of these situations occurs, the facility owner or operator must submit eight different items of information to the Regional Administrator of the EPA, plus any additional information pertinent to the SPCC Plan if requested. Upon review of this information, the Regional Administrator may require the facility owner or operator to amend the SPCC plan if the current plan is determined to be deficient.

## FIGURES

# BLYTHE PROJECT SITE



NOT TO SCALE

TITLE:

## SITE LOCATION BLYTHE ENERGY PROJECT

LOCATION:

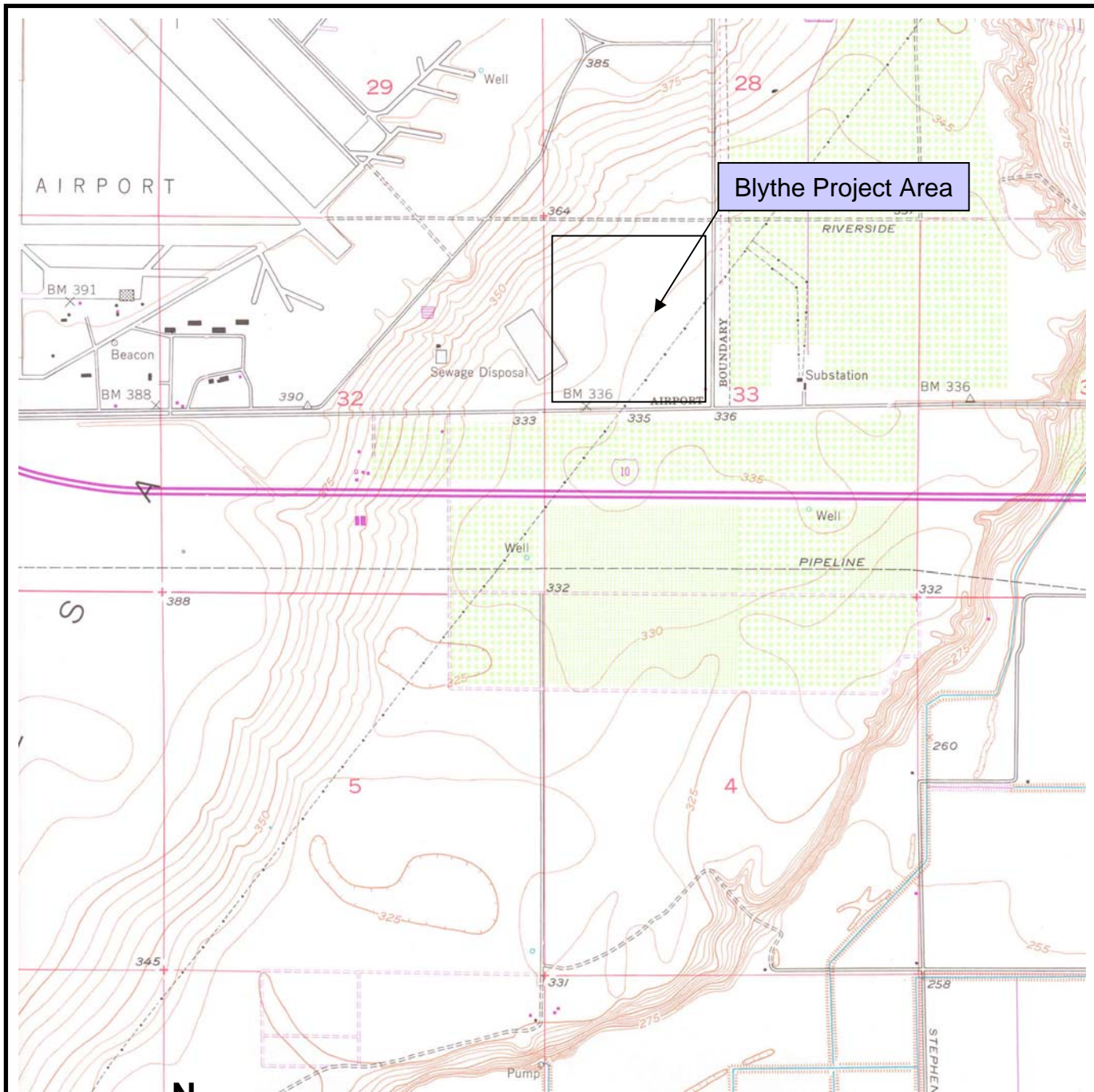
15560 West Hobsonway  
Blythe, California 92225



CHECKED:	MSH
DRAFTED:	J. Strickland
PROJ.:	P782-102
DATE:	02/07/02

FIGURE:

1



NOT TO SCALE

TITLE:

## SITE TOPOGRAPHY

### BLYTHE ENERGY PROJECT

LOCATION:

**15560 West Hobsonway  
Blythe, California 92225**



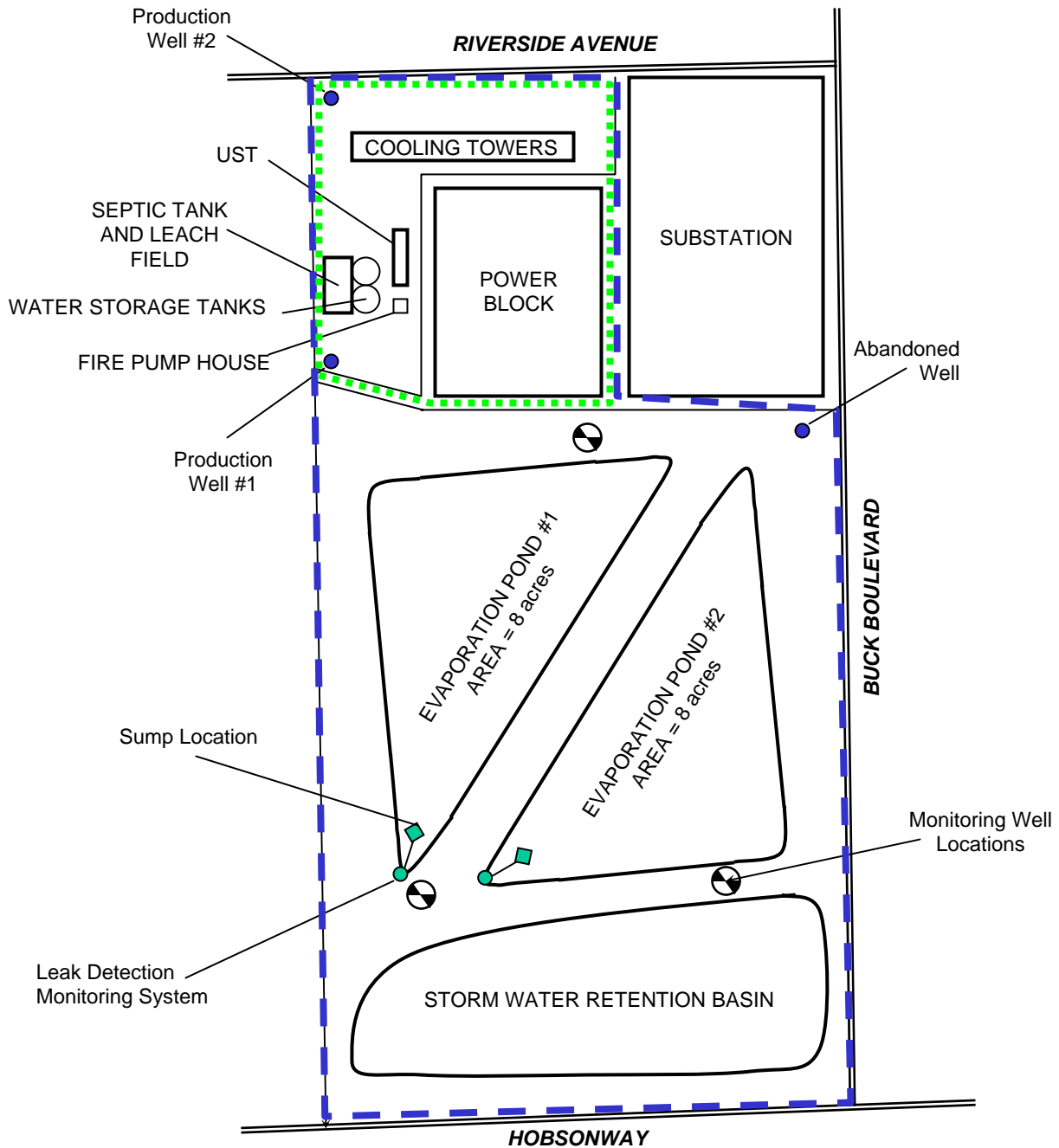
CHECKED:	MSH
DRAFTED:	J. Strickland
PROJ.:	P782-102
DATE:	02/07/02

FIGURE:

**2**

Source: USGS Ripley Quadrangle,  
1952 (photo-revised 1975)

J:\Blythe\2003\SPCC-fig 2



NOT TO SCALE



TITLE:

## SITE LAYOUT

### BLYTHE ENERGY PROJECT

LOCATION:

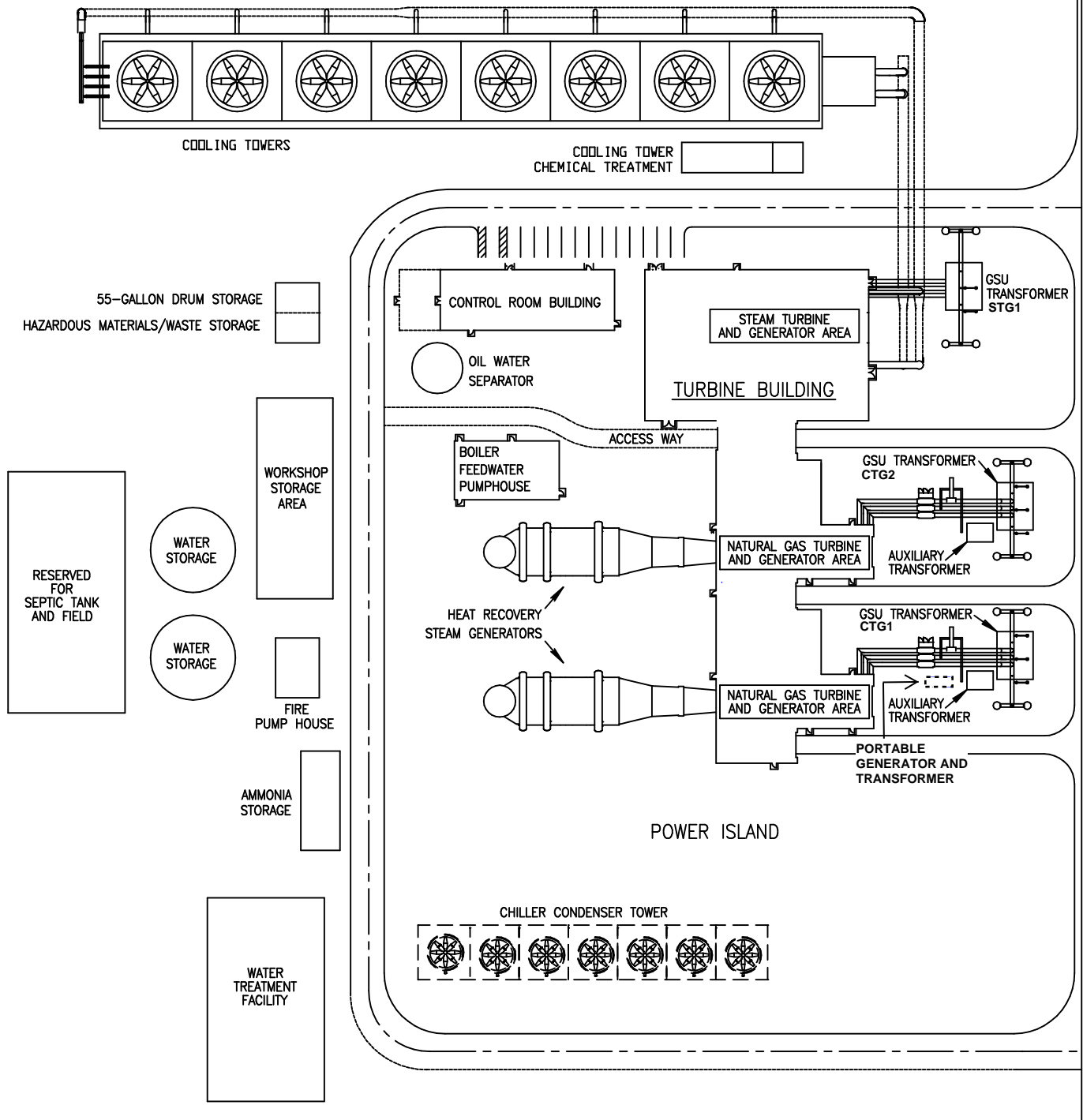
**15560 West Hobsonway**  
**Blythe, California 92225**



CHECKED:	MSH
DRAFTED:	JDM
PROJ.:	P782-102
DATE:	9/12/02

FIGURE:

**3**



0 100' 200'  
APPROXIMATE SCALE IN FEET



NOTE: FIGURE REVISED BY TETRA TECH EC, INC. FOR THE PROJECT SPCC DATED DECEMBER 2009. APPROXIMATE LOCATION OF TEMPORARY PORTABLE GENERATOR AND TRANSFORMER ADDED TO THE FIGURE.

TITLE:

POWER BLOCK LAYOUT  
BLYTHE ENERGY, LLC

LOCATION:

15560 West Hobsonway  
Blythe, California 92225



CHECKED:	MSH
DRAFTED:	JDM
PROJ.:	P782-102
DATE:	3/22/03

FIGURE:

4



**a. Transformer 11 (CTG 1) looking NW. Temporary staging area of portable generator and transformer.**



**b. Transformer 12 (CTG 2) looking NW at SE corner. Rain water sump pump.**



**c. Transformer 11 (CTG 1) oil containment area SE corner looking north.**



**d. Transformer 11 (CTG 1) NE corner looking south, showing oil containment moat.**

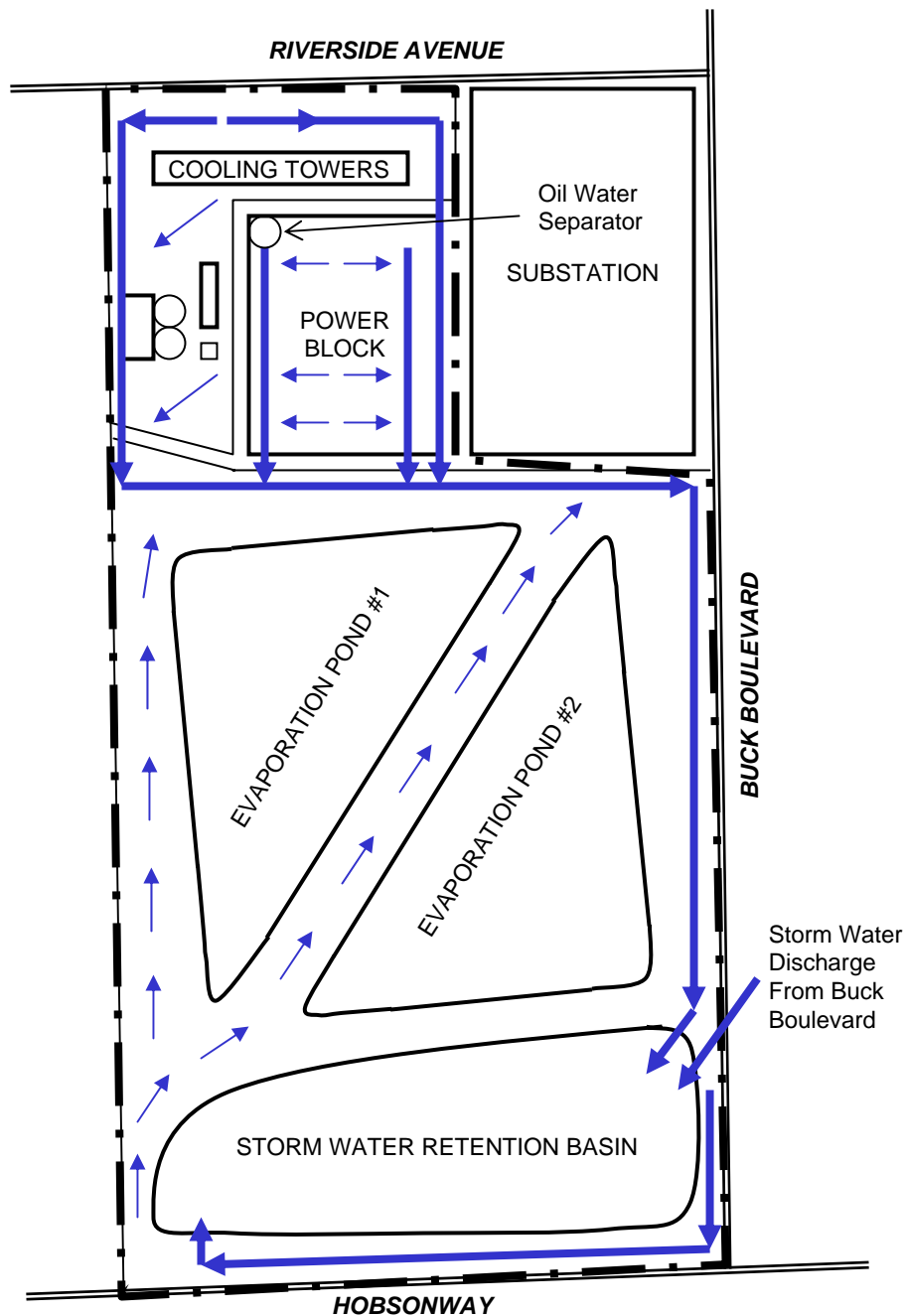





**e. Transformer 11 (CTG 1) oil containment area SE corner looking west.**



**f. Potential tanker truck temporary parking areas, looking south, for all three transformers.**

**FIGURE 5. SITE PHOTOS**



 PROPERTY BOUNDARY  
 SURFACE FLOW RUNOFF DIRECTION  
 CULVERT OR DITCH

NOT TO SCALE

TITLE:

## SITE DRAINAGE PLAN

### BLYTHE ENERGY PROJECT

LOCATION:

**15560 West Hobsonway**  
**Blythe, California 92225**



CHECKED:	MSH
DRAFTED:	JDM
PROJ.:	P782-102
DATE:	9/12/02

FIGURE:

**6**

## **APPENDIX A**

### **SECONDARY CONTAINMENT CALCULATIONS OF MAIN TRANSFORMERS**

Electrical Equipment Area  
Main Transformers – GSU 10, 11, and 12

1. Volume of Nitro 10 GBXT in Each Transformer = 16,500 gallons

- Each transformer provided with separate secondary containment area

2. Secondary Containment Volume

- Total Volume

$$43' \times 34' \times 4.5' = 6,579 \text{ cu ft}$$

- Less Pedestal Displacement Volume

$$20' \times 12' \times 4.5' = \underline{1,080 \text{ cu ft}}$$

- Total Available Containment Volume = 5,499 cu ft

- Less Precipitation Volume

$$43' \times 34' \times 0.5' = \underline{731 \text{ cu ft}}$$

- Total Available Oil Containment Volume

$$5,499 \text{ cu ft} - 731 \text{ cu ft} = 4,768 \text{ cu ft}$$

$$4,768 \text{ cu ft} \times 7.48 \text{ gal/cu ft} = 35,665 \text{ gallons}$$

3. Secondary Containment Evaluation

$$35,665 \text{ gallons} > 16,500 \text{ gallons}$$

Therefore, secondary containment provided is sufficient to contain a worst-case spill and the precipitation from a 100-year, 24-hour storm event.

**APPENDIX B**  
**SAMPLE INSPECTION FORMS**

## **BLYTHE ENERGY**

### **CONTAINER INSPECTION REPORTS**

The largest volume of petroleum products used at the facility is received in bulk and stored in aboveground containers. Other oils, and lubricants are typically received in 55-gallon drums or smaller containers. Additionally, oil-filled electrical equipment is in use at the adjacent substation. As part of the Spill Prevention, Control, and Countermeasures (SPCC) requirements, scheduled inspection of all containers is important to prevent a potential spill. Therefore, the following inspection procedures have been formulated:

1. When a full drum of oil or a piece of oil-filled electrical equipment is trucked, unloaded, and moved to the storage site, it shall be inspected for leaks and shipment damage (dents) by all employees who handle it.
2. Special attention shall be given to ensure that drum taps are properly threaded and installed in accordance with manufacturers' guidelines. A small sample shall be obtained to be certain the dispenser is functioning as designed (without leaks).
3. A visual inspection of all drum, container, and electrical equipment areas shall be conducted weekly. Braces and supports shall be inspected for cracks or failures. The surrounding areas shall also be inspected to verify that no drums or pieces of electrical equipment are slowly leaking and that any spilled oil has been cleaned up. The Environmental Safety and Health Specialist shall maintain a record of such inspections. A sample inspection log follows.

[illegible]

**BLYTHE  
ENERGY  
STORAGE TANK AND PIPING INSPECTION PROCEDURE**

All storage tanks, piping, joints, valve glands and bodies, pipeline supports, metal surfaces, and other aboveground equipment and facilities for transporting or holding oil will be visually checked by each employee as he pursues his daily work. Any and all discrepancies will be reported immediately to the appropriate supervisor.

A detailed and specific visual check of each storage tank system (as indicated above) will be made monthly and records of these inspections will be maintained at the facility. In addition, daily and weekly inspections are also performed of the storage tank system. Copies of both storage tank system inspection records are provided on the following pages.

### MONTHLY STORAGE TANK AND PIPING INSPECTION RECORD

MONTHLY INSPECTION (not to exceed 35 days)		DATE: _____						
INSPECTION ITEMS	LEGEND: Y = YES, N = NO	TANK #	TANK #	TANK #	TANK #	TANK #	TANK #	TANK #
• <i>PIPING COMPONENTS</i>								
Is the piping & components (valves, pumps, flanges, etc.) free of leaks, ruptures, or corrosion?								
Is the piping properly aligned and are supports/foundations and piping in good condition?								
• <i>SECONDARY CONTAINMENT SYSTEM</i>								
Is the secondary containment system in good condition & free of oil or sheen & excessive rainwater?								
For double bottom or double-walled tanks, is the interstitial space free of product?								
• <i>STORAGE TANK COMPONENTS</i>								
Are the level controls, alarms, and in-line equipment operating properly?								
Is the tank free of leaks, shell distortions, corrosion, cracks, wetting, discoloration, blistering or signs of settlement?								
Is the tank exterior coating (paint) in good condition?								
Is the tank foundation/supports in good condition?								

**Comments:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**SIGNATURE OF INSPECTOR OR SUPERVISOR:** \_\_\_\_\_

**Daily & Weekly  
Storage Tank Inspection Schedule**

- \_\_\_\_\_ 1. **D** Gate valve used for emptying the containment area locked closed.
- \_\_\_\_\_ 2. **D** Containment area free of oil or excess standing water.
- \_\_\_\_\_ 3. **D** Tank shell surface, including any peeling areas, welds, rivets/bolts, seams, and foundation, visually inspected for areas of rust and other deterioration.
- \_\_\_\_\_ 4. **D** Ground surface around tanks, containment structures and transfer areas checked for signs of leakage.
- \_\_\_\_\_ 5. **D** Note any hazardous conditions which may jeopardize the integrity of the fuel oil storage tanks, containment, unloading facilities, transfer station (F/O unloading and forwarding) or piping; or state "NONE" \_\_\_\_\_  
\_\_\_\_\_
- \_\_\_\_\_ 6. **W** Containment dike in satisfactory condition.
- \_\_\_\_\_ 7. **W** Tank water bottom draw-off valves not in use are secured.
- \_\_\_\_\_ 8. **W** Containment area/ base of tanks free of high grass, weeds, and debris.
- \_\_\_\_\_ 9. **W** Tank fill valves not in use are secured.
- \_\_\_\_\_ 10. **W** F/O valves inspected for signs of leakage or deterioration.
- \_\_\_\_\_ 11. **W** Inlet and outlet piping flanges inspected for leakage.

**Date** \_\_\_\_\_ **Signature of Inspector** \_\_\_\_\_

# STORAGE TANK CONTAINMENT DRAINAGE INSPECTION RECORD

[illegible]

### OIL SPILL EQUIPMENT INSPECTION RECORD

The plant's oil spill equipment will be inspected on a quarterly basis. Any missing or damaged equipment will be replaced in order to maintain the follow inventories of equipment.

TYPE	QUANTITY	LOCATION	CONDITION
Sorbent Boom			
Sorbent Pads			
Large Poly Bags or 30 gallon			
Shovels			
Rope or ½ line			
Tyvek Suits			
Rubber Gloves			
Rubber Boots			
Visquene			
55-gallon Drums			

**APPENDIX C**  
**TRAINING CHECKLISTS**

# **POWER GENERATION DIVISION**

## **FPL-OSI Environmental Compliance and Policies**

To be completed by Employee and Plant Designee

**1. Work Location Environmental Concerns** ( )

**2. Emergency Action Plan and Procedure for your work location** ( )

- A. Definition of Emergency, Allowable Response, and Rescue
- B. Evacuation Areas and Muster Sign-in
- C. Audible alarm(s)

**3. Hazard Communication** ( )

- A. Labeling - new product
- B. Labeling - secondary containers
- C. Common hazardous materials in use at your work location
- D. Chemical Management

**4. Waste Management- Show employee the collection locations** ( )

- A. Hazardous Waste
- B. Oil Waste
- C. Other non-regulated wastes
- D. Oily Rag Disposal
- E. Wastewater/Storm water
- F. Metal Waste
- G. Aerosol Can Disposal
- H. Recycling Program

**5. Oil Spill Response and Prevention (If applicable)** ( )

- A. Sources of oil on site(s)
- B. Methods of spill prevention
- C. Location of clean-up material
- D. Hazards associated with oil products
- E. Allowable response
  - Based on training
  - Based on size of spill

**6. Air Emissions** ( )

- A. Permit conditions
- B. Control (fugitive sources)

**Sign Off - Employee:** \_\_\_\_\_

**Person Accountable:** \_\_\_\_\_

# POWER GENERATION DIVISION

## FPLE-OSI Safety, Regulatory, and Quality Training

To be completed by Employee and Plant Designee

### **Schedule Medical Evaluations - (If Applicable)**

- Audio Metric - Baseline Hearing Test
- Pulmonary Functional Testing – (If employee is required to wear a respirator)
- Medical Questionnaire Qualification and Respirator Fit Test (Same as above)

### **KDS Safety Training**

**Note: Training Assignments May Vary Based on Employee's Job Classification, but every new employee must undergo the complete Behavior Based Safety training program.**

1. Asbestos Awareness ( ) \_\_/\_\_/\_\_
2. Classes of Fires and Extinguishers ( ) \_\_/\_\_/\_\_
3. Electrical Hazard Awareness ( ) \_\_/\_\_/\_\_
4. Personal Protection Equipment ( ) \_\_/\_\_/\_\_
5. Respirator Care & Use & (Medical Questionnaire & Fit Test If Applicable) ( ) \_\_/\_\_/\_\_
6. Hearing Conservation ( ) \_\_/\_\_/\_\_
7. Ladders and Scaffold ( ) \_\_/\_\_/\_\_
8. Fall Protection ( ) \_\_/\_\_/\_\_
9. Slips, Trips, and Falls, Don't Let It Happen To You ( ) \_\_/\_\_/\_\_
10. Emergency Action Plan (Site Specific) ( ) \_\_/\_\_/\_\_
11. Confined Space Entry ( ) \_\_/\_\_/\_\_
12. Scaffolding User Training ( ) \_\_/\_\_/\_\_
13. In-Plant Clearance Training ( ) \_\_/\_\_/\_\_
14. Ergonomics ( ) \_\_/\_\_/\_\_

### **Training Scheduled by Work Location (If Applicable)**

15. Lead Awareness ( ) \_\_/\_\_/\_\_
16. First Aid, Blood Borne Pathogens, CPR & AED ( ) \_\_/\_\_/\_\_

### **Environmental Training**

1. Pollution Prevention/SPCC Plan ( ) \_\_/\_\_/\_\_
2. Best Management Plan/Permit Conditions/Air Emissions ( ) \_\_/\_\_/\_\_
3. \*Waste Management ( ) \_\_/\_\_/\_\_
4. \*Hazard Communication/Right to Know ( ) \_\_/\_\_/\_\_
5. \*Material Safety Data Sheets ( ) \_\_/\_\_/\_\_
6. \*HAZWOPPER: Introduction ( ) \_\_/\_\_/\_\_
7. \*HAZWOPPER: First Responder ( ) \_\_/\_\_/\_\_

**Note: \* Topic available on the Knowledge Delivery System (KDS).**

### **Fundamentals of Quality Improvement**

1. Fundamentals of Quality Improvement ( ) \_\_/\_\_/\_\_  
Available On-line (Workforce Performance and Development)  
On the Human Resources Web Site

**Sign Off - Employee:** \_\_\_\_\_

**Person Accountable:** \_\_\_\_\_

## **APPENDIX D**

### **CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA**

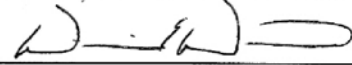
**CERTIFICATION OF THE APPLICABILITY OF  
THE SUBSTANTIAL HARM CRITERIA**

Facility Name: FPL Energy Operating Services, Inc.  
Blythe Energy, LLC  
Facility Addresses: 15560 W. Hobsonway  
Blythe, CA 92225

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons? **No**
2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest above ground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?  
**No**
3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula<sup>(1)</sup>) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" and the applicable Area Contingency Plan. **No**
4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake?  
**No**
5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experience a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?  
**No**

**Certification**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

  
\_\_\_\_\_  
Signature  
Bill Watson  
\_\_\_\_\_  
Name (please type or print)  
Blythe Energy Project Transmission Line Construction Manager  
\_\_\_\_\_  
Title  
\_\_\_\_\_  
12/29/09  
\_\_\_\_\_  
Date

**APPENDIX E**  
**EMERGENCY RESPONSE ACTION PLAN**

**BLYTHE ENERGY POLICIES AND PROCEDURES**  
**SECTION 2 - ENVIRONMENTAL, SAFETY AND HEALTH**  
**SUBJECT: *Emergency Response / Action Plan***



**FPL Energy**

Procedure No.  
Prepared by: Gary McIntire

Revision No. 1  
Approved by:

Issue Date: 12/04/02  
Page 1 of 42

## **1.0 Purpose**

The purpose of this procedure is to provide guidelines to be followed whenever emergency actions are to be taken by the Blythe Energy Personnel. The Emergency Response Plan (ERP) for the Blythe Energy Project (BEP) has been developed to provide procedures for the continual development and implementation of the Emergency Action Plan (EAP). The EAP is an interactive document and is intended to protect facility personnel, the public, the environment, and property should an emergency occur at the facility.

This plan has been formulated to fulfill the requirements of SARA Title III Act of 1986, the RCRA, the OSHA Standards for General Industry, the Clean Air Act Amendments of 1990, and the Cal / OSHA guidelines for Emergency Action Plans.

## **2.0 Responsibilities**

### **2.1 Plant General Manager**

The Plant General Manager has overall responsibility for the administration and enforcement of this procedure.

### **2.2 Production Manager**

The Production Manager is the Emergency Coordinator.

### **2.3 Team Leaders**

The Team Leaders have the responsibility to ensure their personnel have received proper initial training and subsequent annual training on this procedure. Will maintain the proper training records for all personnel who are trained on this procedure.

## **3.0 Procedure**

### **3.1 Regulations for Site Emergency Planning**

This section describes the major federal regulations requiring the implementation and ongoing management of facility emergency planning.

#### **3.1.1 SARA Title III**

The Emergency Planning and Community Right-to-Know Act of 1986 (40CFR 350, 355, 370, and 372) -- Title III of the Superfund Amendments Reauthorization Act (SARA) requires facilities to cooperate in the



community emergency planning process and to make information available about chemicals and the hazards they pose to the public.

Facilities that have any of the 360 extremely hazardous substances on site in excess of their established threshold planning quantity must notify the local emergency planning commission (LEPC) and state emergency response commission (SERC). Facilities must provide LEPCs and local fire departments with copies of the hazardous substances' MSDS and other information under Section 303(d)(3) including quantities, storage conditions and locations of a chemical, and toxicity data. The LEPCs use this information to determine potential incident scenarios at the facility and to develop a comprehensive emergency plan for the community.

### 3.1.2 Resource Conservation and Recovery Act

Although the BEP is anticipated to remain a conditionally exempt small quantity Generator as defined by RCRA. Provisions concerning emergency planning should still be consulted for "best engineering practice" considerations, because the facility could lose its exempt status if modifications in the language of the current regulation or practices at BEP occur.

In accordance with 40 CFR Parts 264 and 265, certain treatment, storage, and disposal facilities must develop contingency plans to minimize hazards to human health and the environment from fires, explosions, or any unplanned release of hazardous waste to air, soil, and ground or surface water. Notification procedures and coordination responsibilities must be clearly defined. Emergency equipment must be available and all appropriate personnel must be trained and knowledgeable of facility hazards, initial response, and evacuation procedures.

### 3.1.3 OSHA Worker Protection Standards

In accordance with 40CFR 1910.120, facilities with workers who could be involved in emergency response operations, must develop a written emergency plan that addresses pre-emergency planning, personnel roles, lines of authority and communication, emergency recognition and prevention, safe distances and places of refuge, site security and control, evacuation routes and procedures, decontamination procedures, emergency medical treatment and first aid, emergency alerting and response procedures, critique of response and follow-up, and personal protective equipment and emergency equipment. Substances covered include CERCLA hazardous substances, DOT hazardous materials, and RCRA hazardous waste.



3.1.4 OSHA Hazard Communication Standard

In accordance with 29 CFR 1910.1200, employers that produce, use, or store hazardous chemicals are required to participate in the written hazard communication program. The program must describe how criteria will be met for labels and other forms of warning, Material Safety Data Sheets (MSDS), and employee information and training. The program shall also include a list of hazardous chemicals known to be present and the methods the employer will use to inform the employees of the hazards of non-routine tasks and the hazards associated with chemicals contained in unlabeled pipes. Substances covered include all hazardous chemicals known to be present in the workplace to which employees may be exposed under normal conditions or in a foreseeable emergency.

3.1.5 OSHA Employee Emergency Plans and Fire Prevention Plans

In accordance with 29 CFR 1910.38, emergency action plans must include emergency escape procedures and routes, procedures for employees who remain to operate critical plant operations before they evacuate, procedures to account for all employees after emergency evacuation has been completed, rescue and medical duties for those employees who are to perform them, the preferred means of reporting fires and other emergencies, and names, titles, and telephone numbers of individuals who can be contacted for further information.

3.1.6 Clean Air Act Amendments of 1990

The CAA Amendments of 1990 (Public Law 101-549, 40 CFR Part 67) require facilities with certain listed chemicals on site, above the specified threshold quantity, to develop risk management plans which detect and prevent or minimize accidental releases and provide for prompt emergency response. These risk management plans must include a hazard assessment, a prevention program, and a response program. It is anticipated that DCCF must achieve compliance with this portion of the amendments by 1998.

3.1.7 OSHA Process Safety Management Standard

The OSHA Process Safety Management Standard (29 CFR 1910.119) complements the accidental release provisions of the Clean Air Act Amendments, requiring certain facilities to establish operating guidelines to improve process safety. The standard was proposed prior to the passage



of the CAA Amendments, but meets the requirements mandated for OSHA under that regulation.

The law covers facilities that use highly hazardous chemicals -- including toxic, flammable, highly reactive, and explosive substances -- in excess of established thresholds. Covered facilities must develop process safety information; conduct a hazard assessment; develop written procedures for operations, maintenance, and management of change; investigate accidents; conduct pre-start-up reviews; establish training and maintenance programs; and train workers on emergency response procedures.

### **3.1.8 DOT Training, for Safe Transportation of Hazardous Materials**

Recently promulgated Department of Transportation (DOT) regulations amended the Hazardous Material Regulations contained in 49 CFR Parts 171-177. The rule applies to facilities with employees who engage in (a) transporting hazardous materials in commerce, (b) causing hazardous materials to be shipped or transported in commerce, or (c) reconditioning or testing of packaging used for the transportation of hazardous materials.

Under the new rule, all employees who handle hazardous materials must be certified in three categories; general awareness of, and familiarity with, the hazardous material transportation and communication rules; function-specific training tailored to the individual's job; and safety training on workplace hazards, accident avoidance, and accident response.

An employee must be trained if he or she loads, unloads, or handles hazardous materials. Tests, reconditions, repairs, modifies, marks, or represents drums or other packaging used to transport hazardous materials. An employee that prepares hazardous materials for transportation is responsible for the safety of transported hazardous materials, or operates a vehicle containing hazardous materials.

Other training received by employees to fulfill OSHA and EPA obligations need not be duplicated, but should be augmented to include any provisions required by DOT that have not been addressed.

## **3.2 Site Location and Facility Description**

The Blythe Energy Project (BEP) located in Blythe, California, on 180 acres, 15560 Hobsonway. The Main Entrance is located on Buck Blvd 1/4 mile north of Hobsonway. BEP is a 520 MW Natural Gas Fired, Combustion Turbine Combined Cycle Plant. BEP's technical configuration consists of a 2 x 1

**BLYTHE ENERGY POLICIES AND PROCEDURES**  
**SECTION 2 - ENVIRONMENTAL, SAFETY AND HEALTH**  
**SUBJECT: *Emergency Response / Action Plan***



**FPL Energy**

Procedure No.

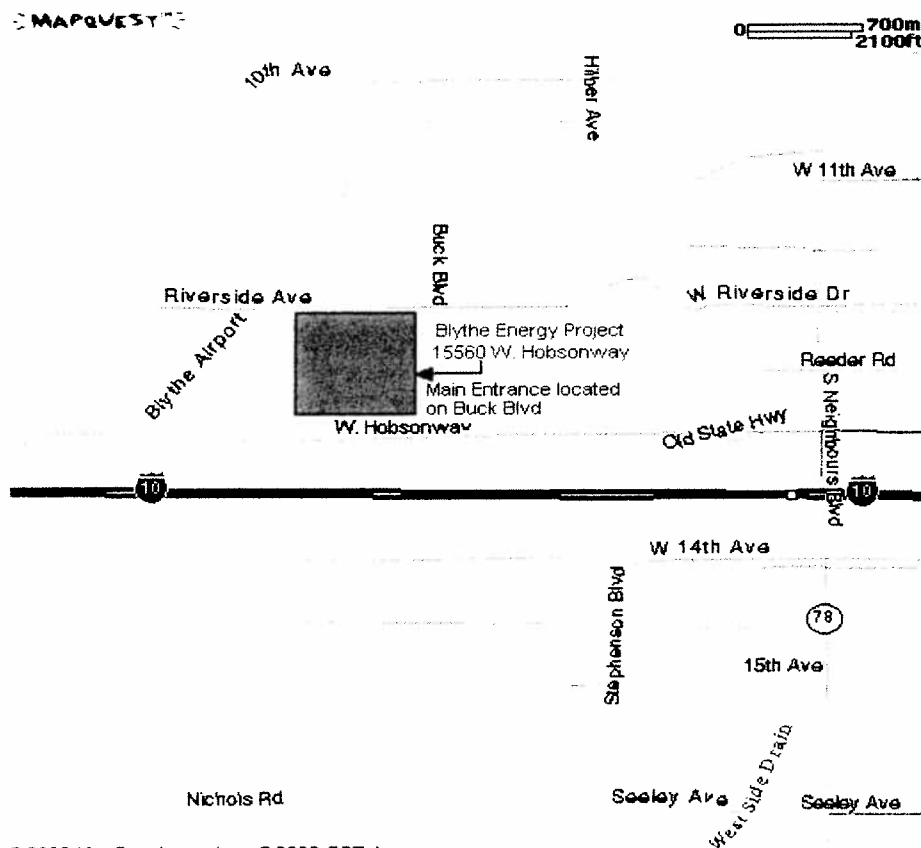
Revision No.1

Page 5 of 42

combined cycle plant utilizing two Siemens Westinghouse KWU model F-class V84.3A(2) combustion turbines, two Vogt-NEM Harp-design heat recovery steam generators (HRSG), and a single condensing Siemens Westinghouse Series K-N steam turbine generator. The project will be interconnected to the Western Area Power Administration's Blythe substation.

A common water treatment plant is provided to process makeup water for boiler losses and to process water from the 8 cell-cooling tower. Wastewater produced on-site from the water treatment operation, is treated and the brine waste is sent to an onsite, lined evaporative pond. All Rain water trapped on-site will be sent to an on-site retention pond.

**Vicinity Location Map**  
**Blythe Energy Project**



**BLYTHE ENERGY POLICIES AND PROCEDURES**  
**SECTION 2 - ENVIRONMENTAL, SAFETY AND HEALTH**  
**SUBJECT: *Emergency Response / Action Plan***



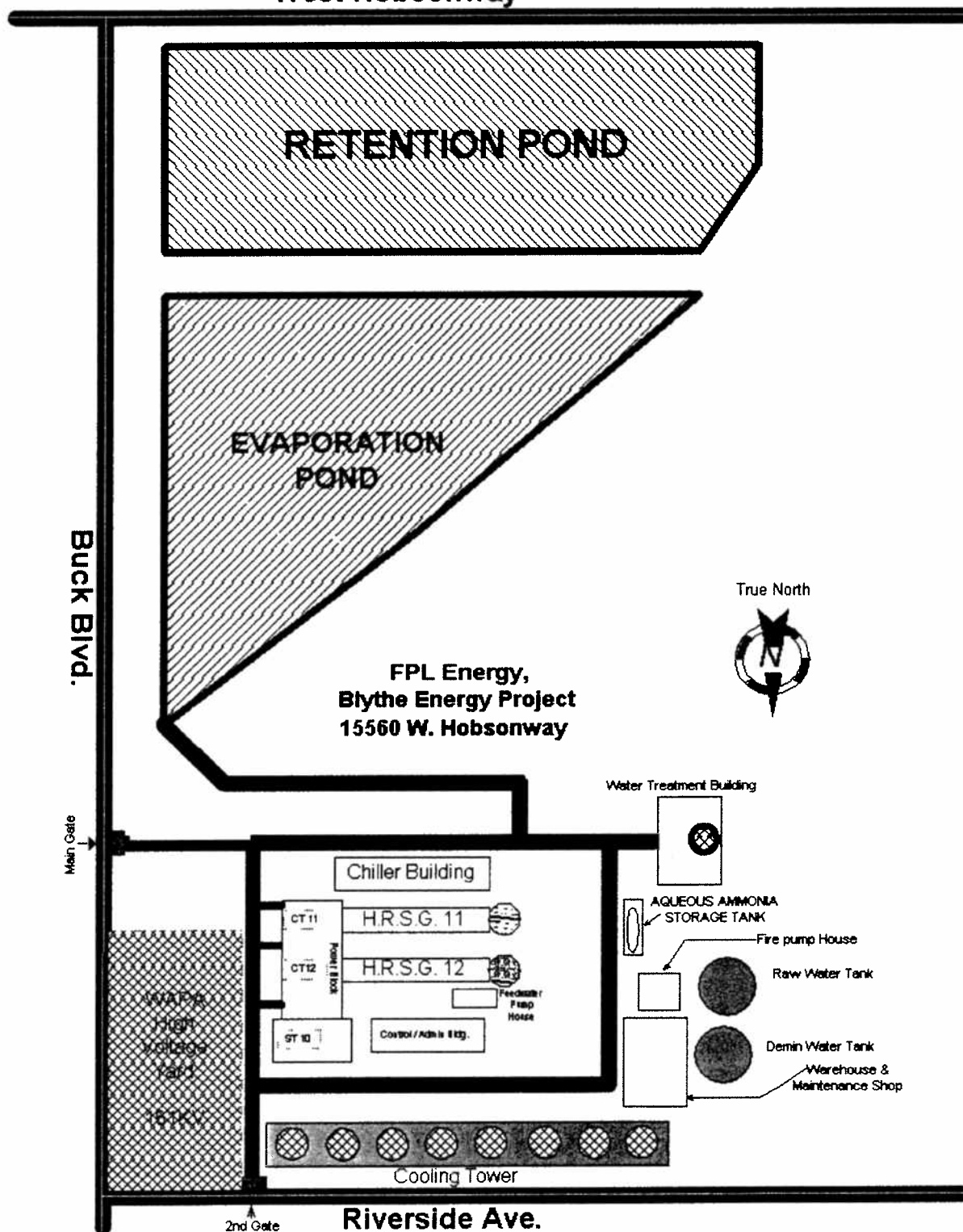
**FPL Energy**

Procedure No.

Revision No.1

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**Blythe Energy Map and  
Equipment Layout  
West Hobsonway**



**BLYTHE ENERGY POLICIES AND PROCEDURES**  
**SECTION 2 - ENVIRONMENTAL, SAFETY AND HEALTH**  
**SUBJECT: *Emergency Response / Action Plan***



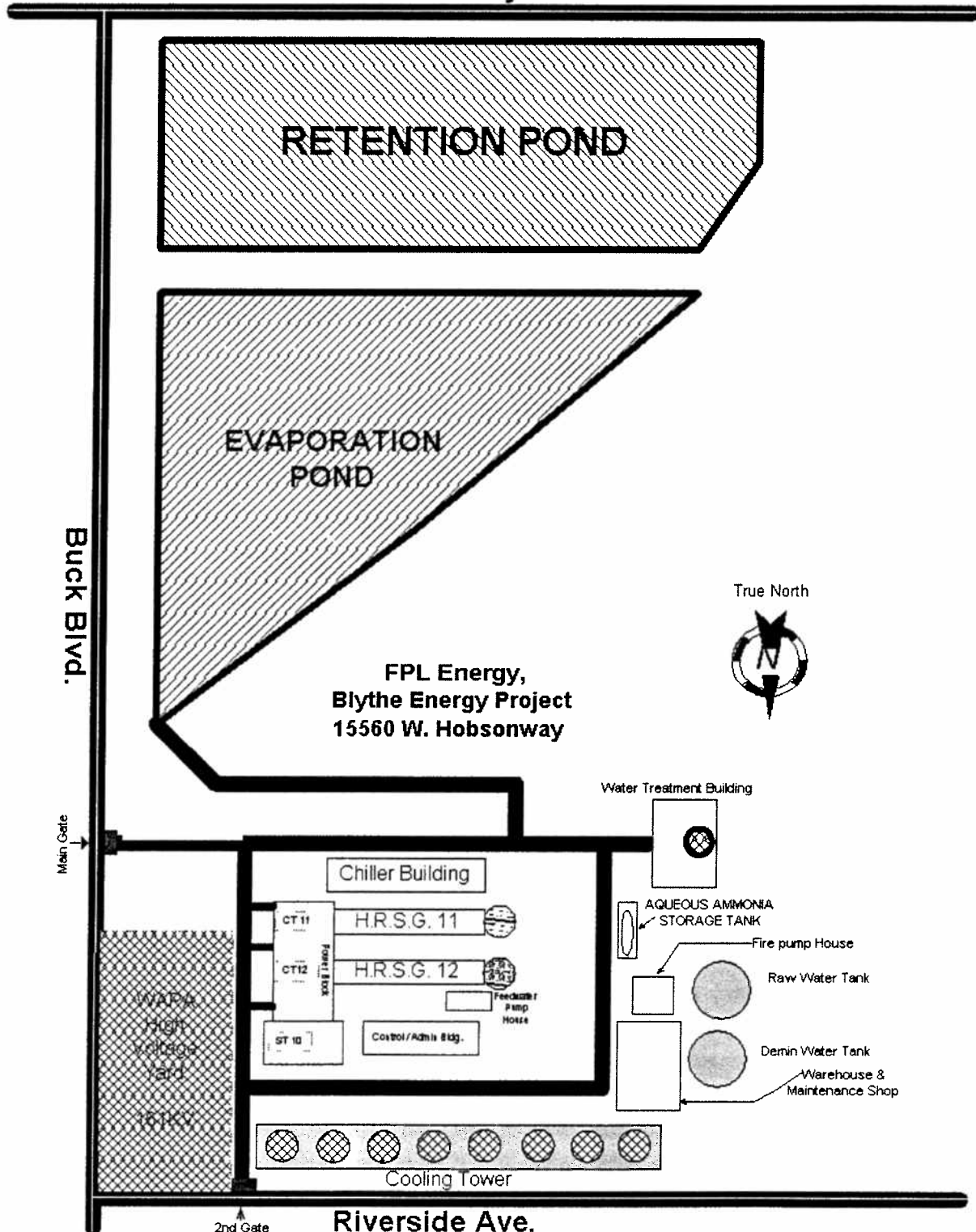
**FPL Energy**

Procedure No.

Revision No.1

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**Blythe Energy Map and  
Equipment Layout  
West Hobsonway**





### **3.3 EMERGENCY ACTION PLAN**

#### **3.3.1 Organization**

The Emergency Action Plan provides information on the organization, equipment, instructions, and requirements necessary to enable a rapid and effective response to an emergency situation at the BEP. The plan is divided into several subsections that address areas of responsibility and actions to be taken immediately, during, and after an accident or emergency.

The BEP Management is responsible for interfaces with governmental organizations and the public information media. The primary BEP representative is the Production Manager. The Production Manager is responsible for reporting incidents to federal, state, and local authorities, other corporate departments and for providing post-incident reports to the authorities as required by law.

The BEP Production Leaders are responsible for operation of the facility and will assume the duties of Emergency Coordinator until the Production Manager arrives on site. Upon notification of an incident, the Production Manager assumes the functions of the facility Emergency Coordinator, exercising command and control over the response actions of the facility organization. The EC is also responsible for ensuring that the local assistance providers and the emergency response contractors are notified of an incident.

The Emergency Coordinator shall report to the location of the incident and assume operational control of the facility's response actions. The EC, or alternative designated by the EC, shall meet off-site responders at the front gate of the facility and shall direct them either to the designated control center, or if the situation warrants, directly to the incident. Emergency notifications for off-site assistance are discussed in Section 5.3.6, Communication Systems and Notification Procedure. The Riverside County Incident Commander will manage and direct the Fire Department and/or Emergency Response Team, and will be aided by the BEP Emergency Coordinator.



### 3.3.2 Potential Emergencies

The types of emergencies prepared for and covered in the BEP Emergency Action Plan include: medical injury, fire, leaks and spills of hazardous materials, sabotage, civil disturbance, severe weather, and earthquakes. The actions taken in response to each of these emergency situations, including, evacuation, are outlined in Section 5.3.7, Initial Response Procedures. As conditions warrant, the services of off-site support groups (Section 5.3.3) will be sought. Off-site support organizations' telephone numbers are provided in the Emergency Notification Roster.

### 3.3.3 Coordination with Support Groups

Support services are available from off-site groups to provide aid in the event of an emergency situation at BEP. Such aid encompasses medical assistance, fire control, law enforcement, and hazardous materials release (BEP-contracted emergency response companies). Therefore, BEP will provide incipient response only to the major emergency scenarios.

### 3.3.4 Emergency Notification Roster

The names and telephone numbers of emergency agencies, support groups, and plant operations and management staff are located in the roster. The Production Manager, or his designated representative, shall be responsible for ensuring that the roster remains current and shall verify its content no less than semi-annually. Following review and update, the Production Manager shall initial and date the new revision.

### 3.3.5 EC Responsibilities in the Event of an Emergency

The Emergency Coordinator is responsible for the situation assessment and the overall control of the facility response to all emergencies. Upon receiving notification of an emergency situation, the EC will first determine the severity of the situation. If more information is necessary to make the initial assessment, the EC shall report to the scene immediately, and will remain in contact by radio with a designated employee in the control room. If there is an imminent threat to human health and/or the environment that can not be quickly and effectively negated by the plant staff, the EC shall contact the Riverside County



Communications Center and implement the appropriate emergency actions.

### **Emergency Coordinator Immediate Actions**

#### **EC Immediate Actions in the Event of an Emergency**

1. When notified of an incident, perform immediate assessment of the situation. Evaluate the extent of the emergency and determine the necessary response actions. If clear and present danger exist to either human health or the environment, immediately call the Riverside County Communications Center - 911.
2. Order building, area, or facility evacuation and initiate emergency shutdown procedures, if necessary.
3. Use the Emergency Notification Roster, if necessary, in to also request other outside assistance/information.
4. Ensure that proper communications are established and maintained.
5. Refer to the Initial Response Procedures, Section 5.3.7, for response actions.
6. Report to the scene (if presence was not required in 1 to assess danger level) of the incident and assume control. Use appropriate personal protective equipment.
7. Ensure that access to the area is restricted.
8. If the emergency includes an airborne chemical release, monitor, find direction, and ensure that personnel are clear and upwind of the release area.
9. Dispatch personnel to escort fire, medical, or other support teams to proper location within facility.
10. If an off-site fire, hazardous materials, or other emergency team reports, brief the Incident Commander and turn over control of the response.
11. Assist the team as requested.



### 3.3.6 Communications Systems and Notification Procedure

Notifications and requests for assistance are the responsibility of the Emergency Coordinator. Automatic notification of on-site incipient response personnel is accomplished by alarms. The Production Leader shall carry out notification of the Production Manager.

The Production Manager shall notify all appropriate governmental agencies and corporate departments and ensure that lines of communication are maintained. Facility communications capabilities include telephones and FM radios for Production Technician. Outside assistance is available through 911. If normal telephone lines are not available, the facility will use cellular phone to request assistance from Riverside Communication Center.

Report the unit condition event and/or incident to the FPDC (Fleet Performance & Diagnostics Center). FPDC: toll free 866 FPL-FPDC (866-375-3732).

In the event of a telephone system failure, the Production Manager will ensure that notification at the state and county levels are accomplished from the cellular phone or from an off-site telephone.

Notification of affected population groups shall be the responsibility of the Riverside Emergency Service Coordinator and shall be conducted by the Riverside County Emergency Response Team, Sheriff Department, and the California Highway Patrol (police would perform door-to-door notification).

The Plant General Manager will disseminate public information. The Plant General Manager governs the interaction of the company spokesperson with the public, the media, and the community relations representatives of other response or governmental organizations.



#### **4.0     Initial Response Procedures and Contingencies**

The preliminary vulnerability analysis for Blythe Energy has identified the need to prepare for the following potential emergencies:

- 1       Medical Injury
- 2       Fire Fighting
- 3       Leaks and Spills (Chemical, Oil, Gas)
- 4       Sabotage, Bomb Threat or Civil Disturbance
- 5       Severe Weather Conditions
- 6       Earthquake
- 7       Emergency Escape and Site Evacuation



1) Medical Injury

Various types of medical emergencies require the aid of different medical support groups. Riverside County's Rescue Squads will handle medical aid required on site due to immobility of the injured person.

Paramedics will make emergency calls to the site if necessary. These services are located within 5 to 10 minutes of the site.

When medical emergency allows transport of the injured person, 1) ambulance, or 2) helicopter, or 3) BEP vehicle (Non life threatening only) will remove him.

A. Minor Injury

If an injury is superficial and on-site first aid is the only immediate attention that is required, take the following action:

B. Individual Action

1. Obtain the appropriate first aid treatment.
2. Notify your supervisor of the injury as soon as it is practicable.

C. Injured Employee's Supervisor Action

1. Complete an Accident Report.

1A) Serious or Disabling Injury



If any injury (i.e., eye injury, broken bones, back strain, open wound requiring stitches or tetanus shot, etc.) or illness requires immediate medical attention, take the following action:

**A. Individual Action**

1. Notify Control Room personnel that a serious injury has occurred.
2. Administer any necessary first aid within capabilities and await arrival of assistance.

**B. Control Room Personnel Action**

1. Obtain the following, information from the individual reporting a serious injury:
  - a. Name of injured person
  - b. Location of injured person
  - c. Place where injury was sustained
  - d. Type of injury sustained
2. Dispatch assistance to the location to administer first aid.
3. Determine which off-site assistance and notifications are required and make the necessary calls.
4. Report the unit condition event and/or incident to the FPDC (Fleet Performance & Diagnostics Center).  
FPDC: toll free 866 FPL-FPDC (866-375-3732).

**NOTE:** Never attempt to drive yourself off-site alone when you have an injury requiring medical attention. Wait for assistance.

C. Injured personnel will be taken to Palo Verde Hospital:  
Palo Verde Hospital  
250 N. 1<sup>st</sup> St.



Blythe, Ca. 92225  
(760) 922-4115

1B) Medical Supplies

First aid kits contain the following items: antiseptics, bandages, dressings, burn treatments, and miscellaneous tape, scissors, etc. First aid kits will be located in the Control Room and maintenance shop area. The facility will also have available in a marked, easily accessible location the following items: blanket, stretcher, burn pack, and spine board.

2) Fire Fighting

When it is determined that off-site fire support is needed, the Riverside County Communications Center will notify Riverside County Fire Department, and the City of Blythe Fire Department. Note: Blythe Energy team members are not trained fire fighters. All fire fighting beyond incipient response will be carried out by trained fire fighters (City & County).

A. Individual Action

1. If a fire is discovered:

- a. Notify the Control Room personnel immediately giving all pertinent information as to the type, magnitude, and exact location of the fire.
- b. Production Leader will assign a Production Tech to ensure the automatic sprinkler control valve manual isolation valve remains open.
- c. Production Leader will assign a Production Tech to ensure the fire pump(s) have started and are operating properly.
- d. The Production Tech assigned to the area of the fire will ensure all flammable liquid and gas supplies have been isolated to the fire area.



- e. The Production Leader will ensure all electrical isolations to the fire area are de-energized.

**NOTE:** Incipient fire response after calling the Control Room personnel should only be attempted if it can be done without endangering yourself or others.

- f. If it is apparent that the fire is not readily extinguishable using available local fire fighting equipment (i.e. a fire extinguisher):

- 1. Evacuate all personnel from the fire zone.

- 2. Manually initiate the in-plant extinguishing system as appropriate if it has not already automatically initiated. All water extinguishing systems will function indefinitely until the supply valve is manually closed.

- g. The Production Manager will be responsible for the procurement of a salvage crew (if needed) to aid in the clean up after the fire.

#### **B. Control Room Personnel Action**

- 1. Upon notification of a fire:
  - a. Dispatch a member of the operating crew with a portable walkie-talkie, if another Production Tech is available.
  - b. Dispatch other members of the plant staff by means of the public address system, stating "Attention, Fire, Fire" (give location of the fire).
- 2. Call the Riverside County Communications Center - 911, if outside assistance is needed based on prudent evaluation of the situation, request immediate assistance.



3. If conditions warrant an evacuation (for example fire discovered in any of the major buildings on-site that routinely house plant personnel) use the public address system to announce a plant fire evacuation stating: "Attention, Attention, fire in (location of fire). All non-essential plant personnel report to the Muster Stations check point." Wait 10 seconds and repeat the announcement. Repeat a third time.
4. The first person to the muster station is to make an accounting of the plant personnel gathered at the evacuation point (east of cooling tower).
5. Assign a member of the plant staff to meet the Fire Department at the gate and escort them to the fire scene.
6. Notify the Production Manager of the fire and give him/her all available information on the status of the plant.
7. Report the unit condition event and/or incident to the FPDC (Fleet Performance & Diagnostics Center).  
FPDC: toll free 866 FPL-FPDC (866-375-3732).

#### C. Responding Personnel Action

1. Upon notification of a fire, report to the announced location.
2. If the fire cannot be readily brought under control (i.e. using a fire extinguisher) and the automatic extinguishing system has not been actuated, evacuate the area and manually initiate the automatic extinguishing system.
3. Maintain communication with the Control Room. Continue to keep the Control Room informed of current conditions. Determine if emergency shutdown procedures are warranted.



#### D. Fire Detection and Control

Fire control is accomplished by the use of hydrants throughout the site grounds, and numerous hose stations, wet pipe sprinklers, CO<sub>2</sub> protection for the generator, and Dry Deluge for the power plant control room. Portable fire extinguishers of various types, dry chemicals, and CO<sub>2</sub> are also available.

Remote fire detection is accomplished through smoke detectors in the administration and maintenance buildings. Deluge system actuation is monitored in the following areas:

- CT-11 Generator bearings, lube oil lines, cone area, lube oil tank and filter.
- CT-12 Generator bearings, lube oil lines, cone area, lube oil tank and filter.
- Steam turbine lube oil reservoir, conditioner, generator bearings, lube oil piping.  
(section D continued)
- Water Treatment
- Ammonia Tank

Natural gas detection occurs in the following areas:

- CT-11 fuel gas block house
- Ct-12 fuel gas block house
- Fuel supply skid

The CT (Combustion Turbine) includes logic that will trip the Combustion Turbine/fuel source when natural gas detection systems are actuated.

The remote detection and fire control panel (Grinnel Autocall TFX-500M) is located in the Control Room and annunciates any abnormal condition with an audible alarm.

Alarms are also printed out on the dedicated fire control panel printer.

Once the TFX-500 detects and alarms an abnormal condition, the plant production personnel respond by initiating the following actions:

**BLYTHE ENERGY POLICIES AND PROCEDURES**  
**SECTION 2 - ENVIRONMENTAL, SAFETY AND HEALTH**  
**SUBJECT: *Emergency Response / Action Plan***



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1. Investigate abnormal (alarming) condition
2. Verify problem
3. Notify Control Room of status
4. Control Room operator initiates emergency response process (if required).
5. If the alarm is false, a priority 1 work order is generated to restore system to full operational capability as soon as possible.

**E. Weekly fire system QA/QC**

1. The fire system equipment will be checked and tested weekly including:
  - Diesel/Electric pump auto start test
  - Jockey pump auto start test
  - Deluge system valve positions
  - Fire main/branch line flushing
  - PIV position and locked status
  - Fire extinguisher checks

**F. Fire Protection system maintenance/failure**

Any time the fire protection system is not available, the City and County fire departments shall be notified, as well as the insurance carrier (Hartford).

**3) Leaks and Spills (Chemical, Oil and Gas)**

When it is determined that off-site support is needed to contain and control release of a hazardous substance or petroleum product, the Riverside County Communications Center will be called for assistance, as well as the emergency response contractors. The US Coast Guard shall be notified if there is a release of a hazardous substance to water resources or storm sewers.

All chemicals used at BEP shall have material safety data sheets (MSDS) summarizing their hazards, safety precautions necessary in handling the material and first aid steps in event of an accident. MSDS's are available in the Power Block Control Room and the Water Treatment Control Room.

**A. Potential Spills**



### 1. Chemicals

The largest quantities of potentially hazardous liquid chemicals used at BEP are for water treatment and Nox control (CT emissions). These are primarily concentrated sulfuric acid, sodium hypochlorite, and aqueous ammonia (29.5%). These chemicals are stored in aboveground tanks in and surrounding the water treatment area, cooling tower, and chiller plant, and piped throughout the facility.

Potential sources of chemical spills or leaks include:

- a. Traffic accidents involving transportation of chemicals.
- b. Chemicals leaking from chemical delivery/unloading, storage tanks, process piping, or pumps.

### 2. Petroleum Products

Petroleum products are used for field vehicles, heavy equipment, machinery lubrication, electrical transformers, and the turbine lube oil systems.

Potential sources of spills or leaks of petroleum products include:

- a. Leaks in vehicles or heavy equipment, drilling equipment, lubrication piping.
- b. Leaks or ruptures of lube oil storage tanks or electrical transformers.

### 3. Gasses

Potentially hazardous gasses at BEP include anhydrous ammonia, aqueous ammonia, and natural gas.

Aqueous Ammonia is used as part of the air emission control system. The aqueous ammonia is stored in a tank located outside the Fire Pump House. While stored as a liquid, it will change to a gas when released into the atmosphere.



The anhydrous ammonia will be stored in a tank next to the chiller plant. All safety and evacuation valves vent to a water tank where the anhydrous ammonia will be absorbed. Ammonia sensors located inside the chiller plant will shut down the process should a leak occur in the piping or equipment.

Natural gas is used as the fuel for the combustion turbines. It is odorized and delivered to the site by from El Paso Natural Gas via a 12-mile gas line (owned by Blythe Energy) and distributed to the combustion turbines and duct burners in the HRSG.

#### **B. Potential Impacts**

##### **1. Chemicals**

- a. Potential health hazards if direct contact with chemicals is made.
- b. Potential effects on plant and animal life.
- c. Potential contamination of soil and surface water

##### **2. Petroleum Products**

- a. Possible fire hazard.
- b. Potential soil and surface water contamination.
- c. Potential impact on vegetation and wildlife

##### **3. Gasses**

- a. Possible fire hazard.
- b. Possible asphyxiation and/or health hazard.

#### **C. Spill Containment and Clean-up**

Containment and clean-up operations should begin as soon as possible after the spill is discovered.



The following initial steps should be taken in the event of a spill:

1. Only attempt containment and clean-up operations, which can be performed safely.
2. If the spill is from a leaking truck or other vehicle, do not allow the vehicle to leave the location.
3. The person that discovers the spill should make an immediate investigation of the spill. The source of the spill should be stopped only if it is safe to do so. The following information should promptly be reported to the Production Leader and/or Control Room:
  - a. Location of spill
  - b. Type of material spilled, by name or physical description (solid, liquid, color, etc.).
  - c. Approximate amount and extent of spill (controllable or uncontrolled).
4. Proceed to implement the appropriate spill plan and contact the appropriate agencies. (HMEBOP, SPCC/SWPP Plan)
5. Report the unit condition event and/or incident to the FPDC (Fleet Performance & Diagnostics Center). FPDC: toll free 866 FPL-FPDC (866-375-3732).
6. Contact with the Press or other media shall be the responsibility of the Production Manager. If contact with regulatory and other public officials or the press is imperative, then the visitors shall be treated courteously and referred to the highest level of management on site. This person shall acknowledge obvious problems without commitment of liability and without making public comments. The Press or other media shall be immediately referred to the Production Manager upon his arrival at the Facility.

4) Sabotage or Civil Disturbance



An 8-foot chain-link fence controls access control to BEP. Intercom system will control the common entrance located on the north side of the site.

If a civil disturbance or sabotage threatens or actually damages plant systems, the plant Production Technician will have communications capability with the Riverside County Sheriff's Office and will request immediate assistance. The California Highway Patrol should provide additional support. This assistance would include all investigations and actions necessary to eliminate the threat or prevent any further damages to the plant.

Any actual or threatened destruction of plant equipment or property should initiate the following, actions:

**A. Individual Action**

1. If you receive a phone call threatening BEP with a bomb or incendiary device, use the Bomb Threat Report Form as a guide for the type of information you should attempt to obtain.

**If a written bomb threat is received:**

- a. Preserve and protect the document with an outer cover.
  - b. Deliver the document to the Production Manager.
2. If a civil disturbance or act of sabotage is discovered which has damaged or threatens to damage any plant equipment or property:
    - a. Notify the Control Room personnel immediately giving all available information.
    - b. Follow the directions of the Control Room personnel.

**B. Control Room Personnel Action**



1. If notified by plant personnel that an act or threat of sabotage or civil disturbance exist at the plant:
  - a. Telephone the Riverside County Sheriff's department (911) and request that aid be sent to the BEP. Give full details of the situation.
  - b. Conduct an emergency plant evacuation by taking the following action:
    1. Use the PA system to make the following announcement: "Attention, this is an emergency plant evacuation. All nonessential personnel report to the primary evacuation site immediately"
    2. Determine if the plant personnel have been accounted for. If one or more are missing and paging does not locate them, dispatch a two-man search team.
2. Determine which notifications are required and make the necessary calls.
4. Report the unit condition event and/or incident to the FPDC (Fleet Performance & Diagnostics Center).  
FPDC: toll free 866 FPL-FPDC (866-375-3732).

5) Severe Weather Conditions

When severe weather is predicted or threatened, preparation is made by site personnel. Response to damage or injury caused by severe weather shall include determining the extent and nature of the problem, providing incipient response, and existing the aid of off-site emergency response, if required.

The most probable severe weather events at the Blythe Energy site will involve high wind, rain, and lightening. While the site is located well above any potential flood plains, there is the possibility of surface water accumulation and ingress into buildings and equipment. In addition, high winds, and lightening can create significant personnel safety hazards.



Sources of warnings of severe weather are the National Weather Service, local government, and local radio and television stations. These sources should be contacted and/or monitored if severe weather is anticipated. All facility vehicles should be fueled, and materials such as sandbags, plywood, plastic sheeting, and lumber shall be maintained on-site for emergency waterproofing purposes.

**A. Suggested Response Actions**

1. Move to sheltered areas within buildings in case of high winds and lightening.
2. Assign personnel to move essential items and furniture to upper floors in case of flooding.
3. Determine if implementing emergency shutdown procedures is warranted.

**B. Post-Incident Actions**

1. Assign personnel as runners, and use radios or bullhorns if normal communication channels are inoperative.
2. Establish teams to assess the facility for safe occupancy and operational status.
3. Provide resources and personnel assistance to other affected facilities, if possible.

**C. Notifications**

1. If operability of the plant is affected, notify the Production Manager.
2. Report the unit condition event and/or incident to the FPDC (Fleet Performance & Diagnostics Center).  
FPDC: toll free 866 FPL-FPDC (866-375-3732).

**6) Earthquakes**



When an Earthquake occurs site personnel should remain calm.  
Do not attempt to evacuate.

**A. Suggested Response Actions**

1. Find shelter under a desk or sturdy table. A doorway may provide some shelter if a piece of furniture is not immediately available.
2. Avoid places where objects may fall from overhead storage or near outside walls and windows.
3. Determine if implementing emergency shutdown procedures is warranted.
4. Follow directions from responsible persons, and wearing all PPE can reduce the possibility of injuries to personnel.

**B. Post-Incident Actions**

1. Once the building stops shaking, follow evacuation route(s) quickly.
2. Once outside, stay away from buildings, trees, and electrical lines.
3. Assign personnel as runners, and use radios or bullhorns if normal communication channels are inoperative.
4. Establish teams to assess the facility for safe occupancy and operational status.
5. Provide resources and personnel assistance to other affected facilities, if possible.

**C. Notifications**

1. If operability of the plant is affected, notify the Production Manager.



2. Report the unit condition event and/or incident to the FPDC (Fleet Performance & Diagnostics Center).  
FPDC: toll free 866 FPL-FPDC (866-375-3732).

7) Emergency Escape and Site Evacuation Plan

A Emergency Escape Procedure

1. Turbine Building - exit the building at the nearest exit away from the emergency and assemble at designated muster station
2. Water Treatment and Maintenance / Warehouse Buildings exit the building, at the nearest exit away from the emergency and assemble at designated muster station.

B Procedure for personnel who remain to manage critical plant operations before they evacuate.

1. Production Technicians are to ensure the plant has been placed in a safe shutdown condition without endangering themselves before evacuating the plant and leaving it unmanned.
2. In the event the plant has been evacuated for fire, bomb threat, or gas release, all personnel are to assemble by the Main Gate. Unless the emergency prevents you from getting there or you are directed to assemble in another location by your supervisor or the PA system. In the case of an airborne release, avoid the downwind position from the release.
4. Evacuation will be initiated in response to the 5-second emergency signals or through verbal direction via telephone/FM radio by the Production Manager, or Production Leader. In the event of an evacuation, the Production Manager or designee will determine, the announced assembly point that all employees and visitors are accounted for. A plan map of this facility, displaying the locations of hazardous materials and primary and



secondary evacuation routes and assembly areas, is included as Figure 4.3 - 2.

**C Alarm Signal for Facility Evacuation**

An emergency announcement will be made over the PA system, it will be repeated three (3) times.

**D Accountability is conducted in the Following, Manner:**

At the announced assembly checkpoint, the Production Manager or designee will conduct a head count to verify that all personnel and visitors are present by utilizing the Muster Station Roster.

**4.1 Resource Management**

This Emergency Response Plan incorporates the necessary responses to minimize risk and, through integration with other plans, to maximize the application of available resources in responding to an emergency.

The individual responsible for maintenance of facility emergency equipment is the Services Production Leader. BEP maintains a ready supply of emergency equipment throughout the plant in well-marked locations. Emergency response training includes familiarizing employees about the storage locations, as well as the uses, of emergency equipment. BEP will coordinate closely with the Fire Department for incidents that may require off-site fire department assistance. The Fire Department shall be briefed about the chemical hazards on-site and periodic site visits shall be arranged for the Fire Department to maintain familiarity with the plant and its potential hazards. The 24-hour CHEMTREC line is available for advice and information 1-800-424-9300.

Medical assistance/equipment is available through the normal 911 channels.

**4.1.1 Investigation and follow-up**

Investigative follow-up shall be initiated following any incident. Any significant event will be entered into Event Response. Incident investigations involving personnel injury or death, hazardous materials,



or release of oil will be conducted under direction of the Production Manager.

#### 4.1.2 Training

The plant will provide employees with information and training on hazardous substances in their work areas at the time of their initial assignment and whenever a new hazard is introduced into their work area.

All employees are trained in differing, degrees to be familiar with this plan. Training of facility emergency responders is also covered under the hazards communications training required by 29 CFR 1910.1200.

Training is regularly scheduled and is conducted on an annual basis. A training schedule, showing topics required per position, is provided.

The Production Manager is responsible for ensuring that training is conducted and records maintained in accordance with this procedure. Training shall be revised whenever plant changes or new regulatory requirements are introduced that require modification of this procedure, or within 30 days after employment commences for new hires.

The plant will furnish employees with an explanation of a MSDS and the contents of the MSDS for any hazardous substances to which the employees are exposed.

1. Explain any health hazards associated with the use of the hazardous substances or mixtures;
2. Explain proper precautions for handling
3. Train employees in the methods and observations that may be used to detect the presence or release of hazardous chemicals in their workplace areas;
4. Explain the necessary personal protective equipment or other safety precautions necessary to prevent or minimize exposure to the hazardous substances
5. Explain the emergency procedures for spills, fires, disposal, and
6. Explain each revised MSDS as soon as it is received.



- 4.1.3 The plant shall inform employees that they have a right:
- A. To personally receive information regarding hazardous substances to which they may be exposed
  - B. For their physician or other employee designated agent to receive information regarding hazardous substances to which the employee may be exposed
  - C. Against discharge or other discrimination due to the employee's exercise of rights afforded pursuant to the provisions of the Hazardous Substances Information and Training Act.

**TRAINING SCHEDULE/MATRIX**

<u>Topic</u>	<u>Frequency</u>	<u>Position</u>
Hazardous Material/Chemical Emergency Response	Annual	All Employees
Self Contained Breathing Apparatus		



Annual (if applicable).	All Employees	
Fire Extinguisher Use	Annual	All Employees
On-site Hazardous Materials/Chemical Familiarity	Initial Following Changes	New Employees All Employees

#### 4.1.4 Emergency Response Teams

The Emergency Coordinator - the Production Manager, or on-duty Production Leader in the Production Manager's absence - shall direct the incipient emergency response until the professional Emergency Response Team (ERT) arrives on-site. Only appropriately trained facility employees shall provide incipient response. The EC shall determine the qualifications of all employees who respond, and shall direct the incipient response, plant operation shutdown, and evacuation, as appropriate.

#### 4.2 Emergency Response Planning

This plan shall be-maintained, revised, and distributed in accordance with standard facility procedure as determined by the Production Manager. Distribution is controlled. The Production Manager is responsible for ensuring that the plan is reviewed at least annually and for approving all changes to this plan.

Revisions are made to the plan when: (1) applicable regulations change; (2) when an exercise or actual emergency reveals plan deficiencies; (3) when the list of emergency contacts changes; or (4), when changes are made to the facility or to the facility response organization.

Emergency preparedness planning at BEP shall be accomplished employing a three-phased approach. The *first phase* of planning will involve setting, up a Planning Team, reviewing other plans, conducting hazard assessments, and assessing response capabilities. The *second phase* of planning will involve modifying the existing plan based on the additional needs identified by the Planning Team in phase one. The *third phase* of planning will involve developing and implementing drill and exercise programs necessary to acquire competency in implementing the plan and to ensure its continued operability. This three-phased analysis will be used by the Planning Team to investigate the BEP whenever revisions to the plan are necessitated or annually at a minimum.



Ultimate responsibility for minimizing the effects of an on-site emergency normally rests with the management of a facility. Therefore, the Production Manager shall be responsible for ensuring that the necessary resources to prepare, implement, an audit an effective emergency response plan remain available. However, much of the responsibility will fall upon those closest to and most familiar with the operations and processes whose safety this plan is seeking to ensure. Consequently, the Production Manager shall be responsible for the formation of the Planning Team, maintenance of the ERP, and ensuring that adequate training and drills are conducted.

#### 4.2.1 Phase One - Response Planning

Phase one began prior to the initial writing of this plan and shall continue throughout the operational life of BEP. The four steps of phase one that are required to maintain the objectives of the ERP include; (1) forming and maintaining a Planning Team, (2) reviewing, existing plans, (3) conducting a hazards assessment, and (4) assessing response capabilities.

##### 4.2.1.1 The Planning Team

The BEP will create and maintain a team to oversee the maintenance and continued development of the ERP. All groups at the BEP that are exposed to hazardous materials shall be represented on the Planning Team to ensure maximum understanding and use of the plan, as well as minimize the emergency response time. The team will develop trust, coordination, and cooperation by understanding each group and individual responsibilities and limitations.

The team is the best vehicle for incorporating the expertise of a variety of sources into the planning process and for ensuring that the ERP remains accurate and complete. The Planning Team shall include the following representatives:

- A. Production Manager
- B. Production Specialist



- C. Services Production Leader
- D. Production Leader
- E. Emergency Response Contractors (Optional)

All employees shall have access to the forum through the noted representatives.

The following off-site agencies shall also be considered for participation in select meetings:

Police departments

Fire departments

Hospitals/health care facilities

Utility companies.

The BEP Planning Team shall be responsible for educating outside agencies with respect to the hazards at the site, control measures used, the layout of the plant, and their anticipated emergency response roles.

#### 4.2.1.2 Review of Other Plans

Because several plant procedures have been developed to address the various state and federal legal requirements regarding health and safety and environmental management at BEP, copies of all existing plans for the facility must be reviewed and modified in tandem with the Emergency Response Plan (ERP). The Planning Team shall ensure that all BEP procedures remain consistent with each other.

#### 4.2.1.3 Hazards Assessment

The Planning Team will conduct hazard assessments of each operation routinely conducted at the site to identify unsuspected conditions that could lead to serious injuries or property damage. The hazard assessment shall attempt to identify and quantify any and all emergencies that have disastrous potential. Plant personnel who are familiar with the particular operations being considered shall investigate the potential hazards of the BEP.



#### 4.2.1.4 Response Capabilities Assessment

The Planning Team shall 1) develop a list of equipment available for responding to emergencies, 2) gather precise information about where the equipment is stored and who controls access to the equipment at all times, and 3) maintain a list of personnel who have the necessary training for responding to accidents. This ongoing assessment shall also involve determining, and remaining up to date on, the capabilities of the contracted emergency response teams and the Riverside County emergency response team.

#### 4.2.2 Phase Two Implementation of Plan

After collecting and digesting the data from phase one, the Planning Team shall modify the ERP accordingly. The new revision shall be circulated in compliance with the controlled distribution established by the Production Manager.

#### 4.2.3 Phase Three - Drill and Exercise Program

The Planning Team shall provide provisions for regular drills and exercises to accomplish the following:

- 4.2.3.1 Help evaluate emergency plans, procedures, and response Capabilities, providing feedback necessary to make improvements;
- 4.2.3.2 Training, for participants in key response functions
- 4.2.3.3 Improve coordination and relationships with off-site responders
- 4.2.3.4 Provide a vehicle for good public relations.

Emergency planning is a continuous process and shall be managed accordingly at the BEP. When the Planning Team has modified the ERP and personnel have been trained to implement the revised plan, BEP shall conduct exercises to determine if the plan is workable and adequate. Results of the exercises will provide the Planning Team with valuable data for drafting the next revision of the ERP.



The Chemical Manufacturers Association's (CMA) *Community Emergency Response Handbook* provides the most comprehensive and applicable guidance on conducting drills and exercises at facilities. The CMA guidance incorporates procedures developed by the Environmental Protection Agency, the National Response Center, and the Federal Emergency Management Agency. This document will serve as the model for the planning and implementation of emergency preparedness exercises at the BEP.

The Planning Team will perform the duties designated to the Exercise Team in the CMA guidance; The Planning Team shall also schedule all exercises and drills to be conducted at the BEP in the proceeding calendar year when conducting ERP annual reviews.

## **5.0 References**

### **5.1 OSHA**

5.1.1 40CFR:  
264, 265, 350, 355, 370 & 372

5.1.2 29 CFR 1910:  
38, 119, 120, 1200

5.1.3 49 CFR:  
171-177

### **5.2 Cal/OSHA Basics and Cal/OSHA Handbook**

### **5.3 Clear Air Act Amendment of 1990**

### **5.4 Resource Conservation and Recovery Act**

## **6.0 Attachments**

6.1 Emergency Notification Roster

6.2 Bomb Threat Report Form.

6.3 Event Response & Notification Procedure

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## **EMERGENCY NOTIFICATION ROSTER**

**BLYTHE ENERGY POLICIES AND PROCEDURES**  
**SECTION 2 - ENVIRONMENTAL, SAFETY AND HEALTH**  
**SUBJECT: *Emergency Response / Action Plan***



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**A. FACILITY RESPONSE**

1. Production Leader ..... Ext. 228 / (760) 922-9950
2. **EMERGENCY COORDINATOR** – John Schneller ..... Ext. 231 / (760) 922-9950  
..... Mobile (209) 609-9754
3. Plant General Manager – Chris Allen ..... Ext. 227/ (760) 922-9950  
..... Mobile (209) 603-9544
4. Production Specialist – Phil Langworthy ..... Ext. 230/ (760) 922-9950  
..... Mobile (209) 601-0265
5. Vice President – Jim Keener ..... Office (561) 691-2470  
..... Mobile (561) 758-9015

**B. OFF-SITE ASSISTANCE**

For any emergency requiring outside medical, fire, law enforcement, or spill response, the EC shall immediately assess the situation and, if necessary, contact the Riverside County Communications Center at.....**911**

The Production Manager will immediately notify- the following outside agencies for releases involving reportable quantities of hazardous materials or quantities that could adversely impact off-site human health or the environment.

1. National Response Center ..... 800-424-8802  
..... 202-267-2675
2. California Environmental Health Hazardous Materials Division ..... (760) 921-7861  
..... Emergency Number (760) 774-7474
3. Riverside County Environmental Health Department ..... (909) 358-5245
4. Fire Department ..... 911 or 921-7822
5. Sheriff Department ..... 911 or 921-7900
6. California Highway Patrol ..... 911 or 922-6141
7. FPDC ..... Toll Free (866) FPL-FPDC / (866-375-3732)



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**EMERGENCY NOTIFICATION ROSTER**

**Other important off-site telephone numbers include:**

7. County Fire Marshall.....911 or 752-7194
8. Riverside County Hazardous Materials Coordinator..... (760) 863-8976
9. Specialty Chemical Supplier - BetzDearborn:  
24 hour emergency line ..... 800-877-1940
10. Western Area Power Authority, IPP Real Time Ops .IPP Dispatcher (602) 352-2597  
.....Dan DeGracie (602) 352-2542
12. El Paso Gas.....Donna MacFarland (719) 667-7711
13. US Coast Guard - Marine Response ..... 202-267-1430

**BOMB THREAT REPORT FORM**

**BLYTHE ENERGY POLICIES AND PROCEDURES**  
**SECTION 2 - ENVIRONMENTAL, SAFETY AND HEALTH**  
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**INSTRUCTIONS:** LISTEN, DO NOT INTERRUPT THE CALLER EXCEPT TO ASK:

1. When will it go off? \_\_\_\_\_
2. Where is it planted? \_\_\_\_\_
3. What does it look like? \_\_\_\_\_
4. What floor is it on? \_\_\_\_\_
5. Why are you doing this? \_\_\_\_\_
6. Who are you? \_\_\_\_\_

**CALL RECEIVED BY:** \_\_\_\_\_ **DATE / TIME** \_\_\_\_\_

**DESCRIPTION OF CALLER:** ☐ Male ☐ Female ☐ Adult ☐ Juvenile Approx. Age \_\_\_\_\_

VOICE CHARACTERISTICS	SPEECH	LANGUAGE
<input type="checkbox"/> Loud <input type="checkbox"/> Soft <input type="checkbox"/> High Pitched <input type="checkbox"/> Deep <input type="checkbox"/> Raspy <input type="checkbox"/> Nice <input type="checkbox"/> Intoxicated <input type="checkbox"/> Other _____	<input type="checkbox"/> Fast <input type="checkbox"/> Slow <input type="checkbox"/> Distinct <input type="checkbox"/> Distorted <input type="checkbox"/> Stutter <input type="checkbox"/> Nasal <input type="checkbox"/> Slurred <input type="checkbox"/> Precise <input type="checkbox"/> Other _____	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> Foul <input type="checkbox"/> Use of certain words <input type="checkbox"/> Other _____
ACCENT	MANNER	BACKGROUND NOISES
<input type="checkbox"/> Local <input type="checkbox"/> Not Local <input type="checkbox"/> Foreign <input type="checkbox"/> Regional <input type="checkbox"/> Race <input type="checkbox"/> Other <input type="checkbox"/> Explain	<input type="checkbox"/> Calm <input type="checkbox"/> Angry <input type="checkbox"/> Rational <input type="checkbox"/> Irrational <input type="checkbox"/> Coherent <input type="checkbox"/> Incoherent <input type="checkbox"/> Deliberate <input type="checkbox"/> Emotional <input type="checkbox"/> Righteous <input type="checkbox"/> Laughing	<input type="checkbox"/> Office Machines <input type="checkbox"/> Traffic <input type="checkbox"/> Factory Machines <input type="checkbox"/> Planes <input type="checkbox"/> Bedlam <input type="checkbox"/> Voices <input type="checkbox"/> Animals <input type="checkbox"/> Music <input type="checkbox"/> Quiet <input type="checkbox"/> Party

**BLYTHE ENERGY POLICIES AND PROCEDURES**  
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		<input type="checkbox"/> Mixed
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**ACTION TO TAKE IMMEDIATELY AFTER CALL**

1. Notify Production Leader
2. Notify Production Manager
3. Report the unit condition event and/or incident to the FPDC (Fleet Performance & Diagnostics Center). FPDC: toll free 866 FPL-FPDC (866-375-3732).

4. Write exact language of caller: \_\_\_\_\_

\_\_\_\_\_

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**BLYTHE ENERGY POLICIES AND PROCEDURES**  
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**Attachment 6.3 Event Response & Notification Procedure**

**1.0 Purpose**

Provide for detailed instructions for responding to Events and making notifications to FPDC (Fleet Performance & Diagnostics Center).

**2.0 Responsibility**

The Production Manager is responsible for the approval, distribution, and implementation of this procedure.

The Production Leader is responsible for compliance with this procedure by all personnel involved.

The Production Technician is responsible for the execution and compliance with the procedure.

The Subject Matter Expert is responsible for the contents of this procedure.

**3.0 Procedure Index**

1.0	Purpose	Page 1
2.0	Responsibility	Page 1
3.0	Procedure Index	Page 1
4.0	References	Page 1
5.0	Procedures	Page 2
6.0	Attachments /Checksheets	Page 3

**4.0 References**

4.1 Event Notification & Response Process Flowchart, Attachment 1.

**5.0 Procedures**

**5.1 Event Detected**

An event is any fault, defect, off spec operation, or other unsatisfactory result requiring a response beyond the established Operating and Maintenance procedures.

**5.2 Identify Immediate Remedy**

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Due to the current situation, what immediate remedy has been identified to bring the system to normal, and bring the plant to a stable condition. This step should also involve the use of an Operating Instruction to address all issues (safety, environmental, etc) and any implications, if any, which might arise if the immediate remedy is implemented. In addition, plant status should also be clearly understood by all plant personnel.

**5.3 Contact FPDC**

4. Determine whether the condition/event is serious in nature or considered and emergency. The following conditions are considered Serious / Emergency Criteria:
  - A) **Safety:** Any employee injury or significant near miss incident.
  - B) **Environmental:** Any Oil spill.  
Chemical Release or spill.  
Fire that requires outside agency response.
  - C) **Unit Reliability:** Loss of 50 MW unit load or greater.
  - D) **Security:** Plant perimeter breach.  
Violence in the workplace incident.  
Bomb threat.
  - E) **Labor:** Labor issue resulting in either work stoppage, picket or strike.  
Code of Conduct violation.
  - F) **Severe Weather:** Severe Storm, tornado or hurricane that has real potential to impact reliability of unit(s).
  - G) **Miscellaneous:** Any issue that has a potential for public reportability or involvement.
5. Report the unit condition event and/or incident to the FPDC (Fleet Performance & Diagnostics Center). FPDC: toll free 866 FPL-FPDC (866-375-3732).
6. Make a determination whether additional assistance is needed, and request that assistance while in contact with the FPDC.
7. Make immediate notification based on unit condition and/or type of incident present to the following, in the order they are listed:
  - A) **Production Manager: John Schneller** 760 922-9950x231 / 209 609-9754
  - B) **Plant Manager: Chris Allen** 760 922-9950x227 / 209 603-9544
  - C) **Vice President: Jim Keener** 561 691-2470 / 561 758-9015

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**5.4 Change Plant**

This step should be involved addressing any changes that might arise from the implementation of the Immediate Remedy (i.e., procedure change, process change, temporary modifications, and temporary operating instructions or physical system change).

**5.5 Implement Immediate Remedy**

Actual implementation/execution of the immediate remedy.

**5.6 Log event into ERTS**

Manual entry of the event into the ERTS database. This should include all known current data (field and control room) acquired during the event and immediately after.

**5.7 Perform and Verify Root Cause Analysis**

As per QI process, identify root cause(s) of current event.

**5.8 Reliability Profile**

This step should involve updating the Reliability Profile (task accomplished by Plant Production Assurance Leader). The decision to update the profile should be based on current issue(s) being identified as new failure modes with no countermeasure(s) in place or existing reliability issues (identified in the Reliability Profile) that need to be updated.

**5.9 Reliability Centered Maintenance (RCM)**

This step should involved the use of the RCMS (Reliability Centered Maintenance Software) in order to identify any failure modes and corresponding reliability tasks that will prevent any reoccurrence.

**5.10 Work Management, IOW, POD, Reliability Checks, etc**

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This step should involve implementing the reliability tasks into Work Management, IOW POD (as a TOM or TOI), reliability checks or other applicable processes.

**5.11 Process Indicators**

Periodic management reviews of the ERTS database accompanied with a management review of the Work Management database.

- Are all events logged
- Is the true root cause established
- Are counter measures in place to prevent recurrence
- Is problem recurring

**5.12 OUTCOME INDICATORS**

Forced Outage Rate (EFOR), availability factor (EAF) and other availability factors are not impacted in a negative manner.

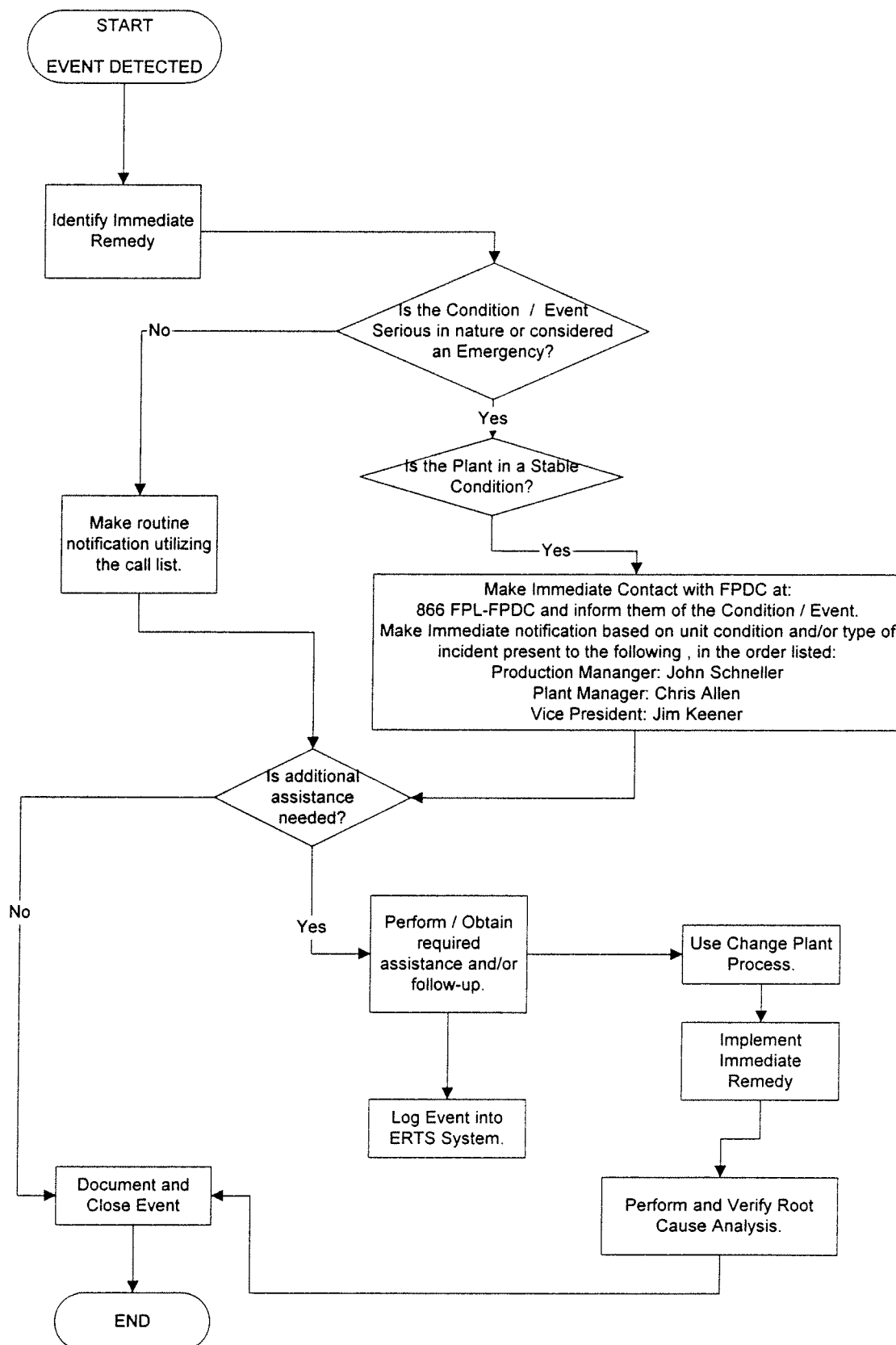
**6.0 Attachments / Checksheets**

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**NOTES**

Serious/Emergency  
Criteria

**Safety:**

-Any employee injury or  
significant near miss  
incident.

**Environmental:**

-Any Oil spill.  
-Chemical Release or spill  
-Fire that requires outside  
agency response.

**Unit Reliability:**

Loss of 50 MW unit load o  
greater.

**Security:**

-Plant perimeter breach.  
-Violence in the workplace  
incident.  
-Bomb threat.

**Labor:**

-Labor issue resulting in  
either work stoppage,  
picket or strike.  
-Code of Conduct violation

**Severe Weather:**

-Severe Storm, tornado or  
hurricane that has real  
potential to impact reliabili  
of unit(s).

**Miscellaneous:**

-Any issue that has a  
potential for public  
reportability or involvem

**APPENDIX F**  
**SPILL REPORTING FORM**

SPILL RESPONSE NOTIFICATION FORM			
REPORTING PARTY INFORMATION			
INITIAL NOTIFICATION TO NRC MUST NOT BE DELAYED PENDING COLLECTION OF ALL INFORMATION			
Reporter's Last Name:	_____	First:	_____ M.I.: _____
Phone Numbers: Day:	_____	Evening:	_____ Mobile: _____
Company:	_____		
Organization Type:	_____		
Your Position:	_____		
Address:	_____		
City:	_____	State:	_____ Zip: _____
Were Materials Discharged? (Y/N):	_____	Confidential (Y/N)	_____
Meeting Federal Obligations to Report? (Y/N):	_____	Date Called:	_____
Calling for Responsible Party? (Y/N):	_____	Time Called:	_____
INCIDENT DESCRIPTION			
Source and/or Cause of Incident:	_____		
Date:	_____	Time of Incident:	_____ AM/PM
Incident Address/Location:	_____		
Nearest City:	_____	State:	_____ County: _____ Zip: _____
Distance from City:	_____	Units:	_____ Direction from City: _____
Section:	_____	Township:	_____ Range: _____
Container Type:	_____	Tank Capacity:	_____ Units: _____
Facility Capacity:	_____	Units:	_____
Facility Latitude:	Degrees _____	Minutes _____	Seconds _____
Facility Longitude:	Degrees _____	Minutes _____	Seconds _____

SPILL RESPONSE NOTIFICATION FORM					
MATERIAL RELEASED (CHRIS Code)	RELEASED QUANTITY	UNIT OF MEASURE	MATERIAL RELEASED IN WATER	QUANTITY	UNIT OF MEASURE
RESPONSE ACTION					
Actions Taken to Correct, Control or Mitigate Incident _____					
IMPACT					
Number of Injuries: _____			Number of Fatalities: _____		
Were there Evacuations? (Y/N): _____			Number of Evacuations: _____		
Was there any Damage? (Y/N): _____			Damage in Dollars (approx.): _____		
Medium Affected: _____					
Description: _____					
More Information about Medium: _____					
Any information about the incident not recorded elsewhere in the report: _____					

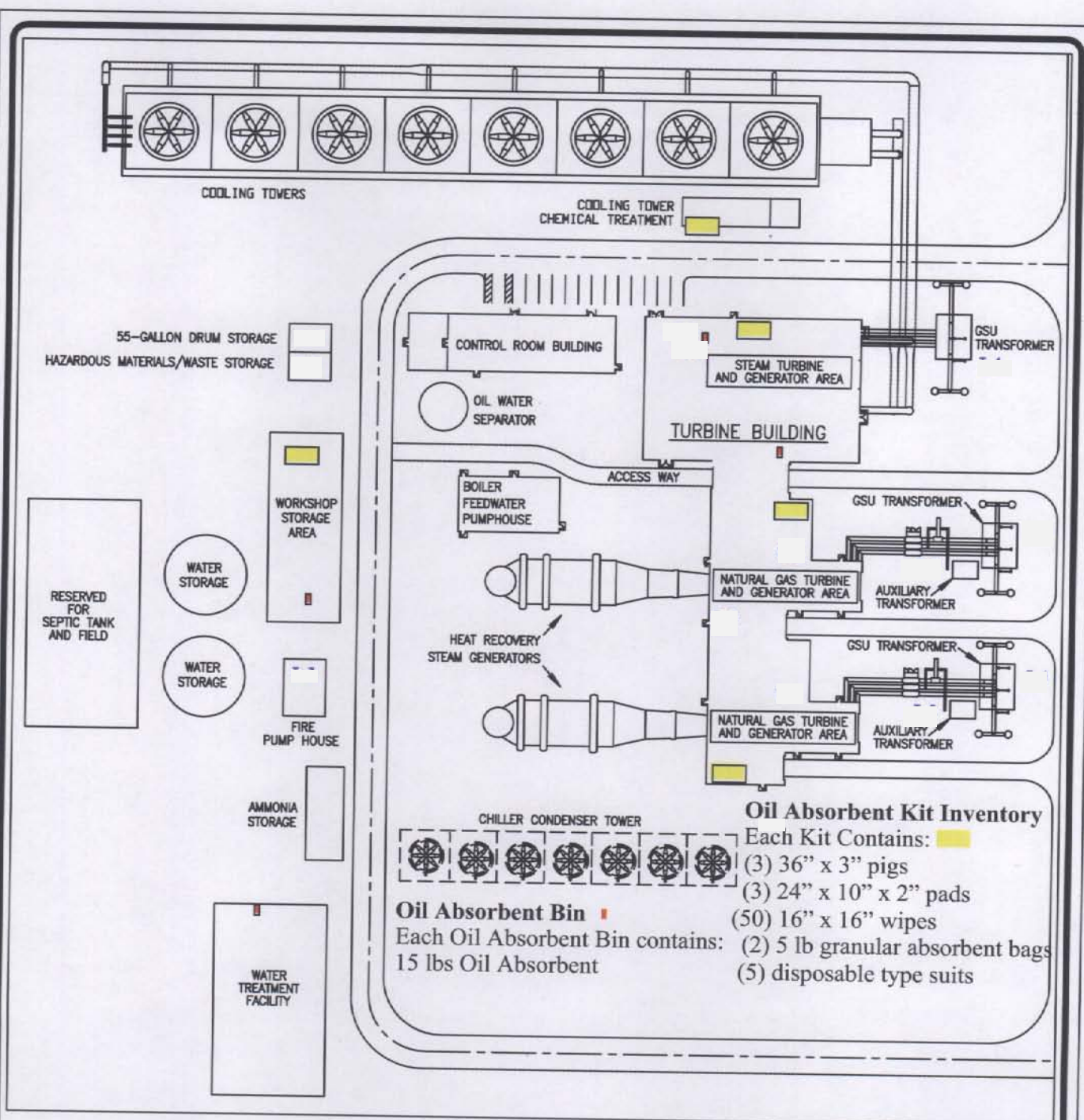
SPILL RESPONSE NOTIFICATION FORM			
ATMOSPHERIC AND WATER CONDITIONS			
ATMOSPHERIC		WATER	
Wind Speed: _____ mph		State of Tide: _____	
Wind Direction From: _____		Current Speed: _____ knots	
Air Temperature: _____ °F		Current Direction From: _____	
Visibility: _____ miles		Wave Height: _____ ft	
Precipitation: _____		Water Temperature: _____ °F	
CALLER NOTIFICATION			
	YES/NO	WHO	TIME/DATE
National Response Center (NRC)	_____	_____	_____
U.S. Coast Guard	_____	_____	_____
NYSDEC	_____	_____	_____
NYCDEP	_____	_____	_____
NYSDEC Region 2 office	_____	_____	_____
FPDC	_____	_____	_____
Response Contractor	_____	_____	_____
Environmental Services	_____	_____	_____
Corporate Communications	_____	_____	_____
Others	_____	_____	_____

\_\_\_\_\_  
On-Scene Commander

\_\_\_\_\_  
Date

## **APPENDIX G**

### **SPILL CONTROL AND CLEANUP EQUIPMENT INVENTORY LIST**



### Oil Absorbent Kit Inventory

Each Kit Contains:

- (3) 36" x 3" pigs
- (3) 24" x 10" x 2" pads
- (50) 16" x 16" wipes
- (2) 5 lb granular absorbent bags
- (5) disposable type suits

### Oil Absorbent Bin

Each Oil Absorbent Bin contains:  
15 lbs Oil Absorbent



TITLE: Oil Spill Kit Location & Inventory BLYTHE ENERGY, LLC		
LOCATION: 15560 West Hobsonway Blythe, California 92225		
 <b>GeoTrans, Inc.</b> <small>A TETRA TECH COMPANY</small>	CHECKED: MSH	FIGURE:
	DRAFTED: JDM	
	PROJ.: P782-102	
	DATE: 3/22/03	

SPILL RESPONSE NOTIFICATION FORM			
ATMOSPHERIC AND WATER CONDITIONS			
ATMOSPHERIC		WATER	
Wind Speed: _____	mph	State of Tide: _____	
Wind Direction From: _____		Current Speed: _____	knots
Air Temperature: _____	°F	Current Direction From: _____	
Visibility: _____	miles	Wave Height: _____	ft
Precipitation: _____		Water Temperature: _____	°F
CALLER NOTIFICATION			
	YES/NO	WHO	TIME/DATE
National Response Center (NRC)	_____	_____	_____
U.S. Coast Guard	_____	_____	_____
NYSDEC	_____	_____	_____
NYCDEP	_____	_____	_____
NYSDEC Region 2 office	_____	_____	_____
FPDC	_____	_____	_____
Response Contractor	_____	_____	_____
Environmental Services	_____	_____	_____
Corporate Communications	_____	_____	_____
Others	_____	_____	_____

\_\_\_\_\_  
On-Scene Commander

\_\_\_\_\_  
Date

**APPENDIX H**  
**WASTE MANAGEMENT**

## WASTE MANAGEMENT

---

### A. TRANSFER, STORAGE, AND DISPOSAL OF WASTES

Depending on the size of an oil spill, various quantities of waste materials would be generated ranging from oil spill clean-up wastes to miscellaneous wastes from ancillary activities. These wastes can range from oily debris and sorbent materials to domestic wastes, used batteries, and sorbents. All of these wastes would need to be classified, segregated, and separately transported from the site, and treated and/or disposed of at an approved disposal site(s). The **Oil Spill Coordinator** would be responsible for managing waste disposal operations for Level I (small) spills at the Blythe Energy facility. Disposal operations related to larger spills will be managed by the Oil Spill Coordinator working closely with the contracted Oil Spill Removal Organization (OSRO) and/or the Corporate Oil Spill Response Team.

### B. CHARACTERIZATION OF WASTES

Both liquid and solid or semi-solid wastes may be generated during response operations. These wastes may further be characterized as oily or non-oily wastes. In addition, some hazardous wastes may also be generated. A summary of the types of response operations that are likely to generate these waste streams is provided below.

### C. OILY LIQUID WASTES

Oily liquid wastes (i.e., oily water and emulsions) that would be handled, stored, and disposed of during response operations are very similar to those generated during routine operations. The largest volume of oily liquid wastes would be produced by recovery operations (e.g., through the use of skimmers and/or vacuum devices). In addition, oily water and emulsions would be generated by vehicle operations (e.g., spent motor oils, lubricants, etc.), vessel and equipment cleaning operations, storage area storm water collection systems, and wildlife cleaning and rehabilitation operations.

#### **D. NON-OILY LIQUID WASTES**

Response operations would also produce non-oily liquid wastes. If oil recovered from surface water goes through a separation process, the wastewater produced may be of a quality that meets federal and state standards to be considered a non-oily liquid waste. Water quality testing would be required to make this determination. In addition, water and other non-oily liquid wastes would be generated by the storage area and storm water collection systems, vessel and equipment cleaning (i.e., water contaminated with cleaning agents), wildlife cleaning and rehabilitation operations (i.e., water contaminated with animal wastes), and office and field operations (i.e., sewage).

#### **E. OILY SOLID/SEMI-SOLID WASTES**

Oily solid/semi-solid wastes, which would be generated by containment and recovery operations, include damaged or worn-out booms, uncleanable equipment, used sorbent materials, saturated soils, contaminated sands, and other debris. In addition, wildlife capture, cleaning, and rehabilitation operations would produce oiled carcasses, and oil-soaked sorbent materials.

#### **F. NON-OILY SOLID/SEMI-SOLID WASTES**

Non-oily solid/semi-solid wastes would be generated by office and field operations (i.e., domestic waste refuse). Vehicle operations also would generate solid wastes. Finally, wildlife capture, cleaning, and rehabilitation operations would produce both medical wastes and food wastes.

#### **G. HAZARDOUS WASTES**

Small amounts of hazardous wastes could be generated by various aspects of response operations. For example, vehicle operations may result in waste used batteries and may require the use of solvents, both of which may be hazardous wastes when disposed.

#### **H. SEGREGATION OF WASTES**

A system for segregation of wastes generated during response operations would be established in the field. Segregating wastes according to type at the time of cleanup would facilitate disposal. Segregation techniques should be employed to ensure that:

- Personnel can readily identify waste materials that are present in their work areas;
- Personnel can readily identify waste materials that they are handling;
- Appropriate wastes are transported in proper transportation devices;
- Appropriate wastes are shipped to proper temporary storage areas; and
- Appropriate wastes are shipped to proper disposal facilities.

Waste segregation techniques that would be employed include: designating specific containers to handle specific wastes; labeling containers; using color-coded poly bags; and/or designating specific areas for the temporary placement of specific wastes.

## **I. STORAGE AND DISPOSAL PROCEDURES**

During an oil spill incident, the volume of oil that can be recovered and dealt with effectively would depend upon the storage capacity available. Storage methods that would be employed would depend upon:

- The type and volume of material to be contained;
- The type of contaminants present, if any;
- The duration of storage;
- The environmental setting;
- Access;
- The time of year; and
- The proximity to human settlements.

Typical short-term storage options are summarized in Table H-1. The majority of these options can be used either on land or on water. Storage containers such as bags or drums would be clearly marked, labeled, and/or color-coded to indicate the type of material/waste contained and/or the ultimate disposal option. The following is a brief description of the potential wastes that may be generated and the disposal options available.

## **1. Recovered product**

Portable Frac Tanks may be brought onsite to provide temporary storage for recovered product. Recovered oily waste would likely be transported off site for further treatment and/or disposal.

## **2. Contaminated Soil**

Contaminated soil would be placed in a bermed area underlain by plastic sheeting. This bermed area would be constructed onsite and would also be covered with plastic sheeting. Representative soil samples of the contaminated soil would be collected and submitted to a laboratory for the analyses. Upon receipt of analyses, this soil would be transported to the appropriate facility for disposal or thermal treatment. Company approved waste transporters would be used as waste transporters for large volumes of contaminated soil.

**TABLE H-1  
SHORT TERM STORAGE OPTIONS**

<b>CONTAINER</b>	<b>ONSHORE</b>	<b>SOLIDS</b>	<b>LIQUIDS</b>	<b>NOTES</b>
Barrels	•	•	•	May require handling devices.
Tank Trucks	•		•	Consider road access onshore. Barge mounted offshore.
Dump/Flat Trucks	•	•		Require impermeable liner and cover. Consider flammability of vapors at mufflers.
Oil Storage Tanks	•		•	Consider problems of large volumes of water in oil.
Pits	•	•	•	Liner(s) required.
Frac Tanks	•			Consider road access.

### **3. Contaminated Equipment and Materials**

Contaminated equipment that may be generated include drums, tank parts, valves, and shovels. If catastrophic failure of the tank is involved, and tank parts and valves need to be disposed of, the parts would be steam cleaned and stored onsite on plastic sheeting.

The minimal water generated during steam cleaning processes would be routed through the onsite oil water separator. Shovels would be steam cleaned and reused. Used drums would be disposed of in similar fashion to the most recent contents of the drum (i.e., if the drum last contained waste oil, it would be disposed of as an empty waste-oil drum).

### **4. Personnel Protective Equipment**

Personnel protective equipment that may be generated during spill containment and cleanup include spent respirator cartridges, Tyvex suits, coveralls, etc. Spent personnel protective equipment would be stored in 55-gallon drums. These drums would be clearly marked, sampled and stored onsite. Upon receipt of the analytical results, these wastes would be sent to either a thermal destruction facility, or to a licensed landfill, if thermal treatment is not an option.

### **5. Decontamination Solutions**

Some of the anticipated decontamination solutions would include waste generated from steam cleaning operations, isopropyl alcohol, etc. The liquid generated from steam cleaning operations would be routed through the oil water separator. Spent isopropyl alcohol would be collected in plastic container and labeled. If large quantities of spent isopropyl alcohol were generated, it would be stored in 55-gallon drums and labeled. An analytical sample would be collected and analyzed. Upon receipt of the analytical results, a determination would be made if the waste were hazardous or non-hazardous.

If the waste were hazardous, a temporary ID number for hazardous waste transportation and disposal would be applied for from ADEM. Upon receipt of this temporary ID number, the wastes would be disposed of at a licensed hazardous waste facility. If the analytical results indicate that the waste is not hazardous, it would be transported and disposed off at a licensed non-hazardous disposal facility.



## **6. Adsorbents**

Spent adsorbents generated would be placed in 55-gallon drums or roll-off bins. Representative analytical samples would be collected and analyzed and upon receipt of the analytical results, these adsorbents would be transported to either a thermal destruction facility or a licensed landfill.

## **7. Spent Chemicals**

Spent chemicals, which would include spent motor oils, and lubricants from aircraft operations, cleaning agents for wildlife cleaning and rehabilitation operations, and other related activities would be contained in 55-gallon drums. The types of wastes will be segregated as best as possible, e.g., wildlife cleaning and rehabilitation wastes in one set of drums, spent motor oils and lubricants in another set of drums, etc. Analytical analyses will be conducted on these separate sets of waste, and based on the analytical results, these wastes will be transported to a licensed disposal facility and disposed of accordingly.

## **J. TRANSPORTATION PROCEDURES**

Hazardous waste would only be transported by company-qualified, fully licensed hazardous waste transporters. Non-hazardous wastes would be transported by licensed non-hazardous waste transporters.

## **K. DISPOSAL PROCEDURES**

The prerequisite to most disposal companies accepting the waste (whether thermally treated or land-filled) is analytical analyses, which should be conducted by a state certified laboratory with an approved Comprehensive Quality Assurance Plan. Table H-2 describes the generic analytical requirements for disposal.

A number of options exist for disposal of wastes resulting from an oil spill. Whether an option is appropriate would be dependent upon the following characteristics of the waste targeted for disposal:

- Solid or liquid.

- Oily or non-oily.
- Hazardous versus non-hazardous. (Note: some waste testing may be required.)

## **L. RECYCLING**

This technique would entail removing water from the oil and blending the oil with uncontaminated oil. For Level I oil spills at the Blythe Energy facility, oily water would be treated on site by the oil/water separator, and solid waste would be stored in drums until shipment to an appropriate waste disposal site.

### **GENERAL GUIDELINES FOR WASTE DISPOSAL INCLUDE:**

Residue from cleanup is to be staged in the contaminated area on synthetic, flexible membrane, liner material until disposal options can be agreed upon. The State's guidance is that thermal destruction of residue, in most cases, would be the most cost-effective option. Thermal destruction would be carried out by:

- Municipal solid waste combustors;
- Stationary thermal treatment facilities; or
- Mobile incinerators.

The following factors would determine which facilities or a combination thereof would be utilized:

- Location of spill;
- Product spilled;
- Quantity of oil;
- Type(s) of environment(s) impacted; and
- Type(s) of residue(s) to be disposed of and degree of contamination.

**TABLE H-2  
GENERIC ANALYTICAL REQUIREMENTS FOR DISPOSAL**

<b>WASTE OILS-WASTE FUELS</b>	
1.	601
2.	602
3.	8 RCRA Metals Totals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver).
4.	Total Halogens
5.	Percent Water (%)
6.	Flash Point (°F)
7.	Percent Solids (%)
8.	TRPH (Total Recoverable Petroleum Hydrocarbons) - 9073
<b>OILY WASTE WATERS</b>	
1.	601
2.	602
3.	RCRA Metals (Total) Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Silver, Selenium.
4.	Total Chlorides
5.	Total Organic Carbon (TOC)
6.	Percent Solids(%)
7.	TRPH (Total Recoverable Petroleum Hydrocarbons) - 9073
<b>CONTAMINATED SOILS/SLUDGES</b>	
1.	VOH (Volatile Organic Halocarbons) - 8010
2.	VOA (Volatile Organic Aromatics) - 8020
3.	TRPH (Total Recoverable Petroleum Hydrocarbons) - 9073
4.	Total Metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver)
5.	Total Organic Halides - 9056, 9252, 9253
6.	Soils contaminated with used oil, hydraulic oil, or mineral oil shall be analyzed for PCB by EPA methods.
7.	Percent Solids (%)

- Heavily contaminated residue such as sorbent pads, seaweed, and debris should go to solid waste combustors. With operating temperatures approaching 1800°F, these facilities can blend the residue in with the solid waste and effectively destroy it. As a side benefit, most of these facilities recover energy in the form of steam or electricity so that some resource recovery is accomplished in the process. These facilities cannot, however, handle residue containing a great deal of sand or soil. Fine-grained materials would fall through the grates in the combustor burner and foul machinery at the terminal.
- Contaminated soils should be disposed of at one of the thermal treatment facilities located in the state. These facilities are either rotary kilns or asphalt dryers and are designed to process fine-grained materials. Depending on their intended primary use such as cement production, clay processing, or asphalt drying, they operate at varying temperatures and have different throughput capacities. The choice of which to use will depend on location, how contaminated the soils are, and the capacity of the facility. Soils heavily contaminated with heavy petroleum should go to treatment facilities with higher operating temperatures. Once the soil is treated to the standards established by the ADEM, it can be sold as clean fill. In the event that the total halogen content is too high and incineration is not an option, contaminated soil will be disposed of at a state-approved landfill.

## **APPENDIX I**

### **REVIEW APPROVAL (Applicable to Plan revisions)**

## **REVIEW APPROVAL**

I hereby certify that I have completed review and evaluation of the SPCC Plan for the Blythe Energy Project:

---

Review Date

---

Reviewed By (Print)

---

Title of Reviewer

---

Reviewed By (Signature)

---

Amendments Required?

---

Amendment Type (Administrative or Technical)

---

Location of Amendments (Entire Plan, Appendix, etc.)

## **Appendix E**

### **Portable Generator and Transformer Specifications, PERP Registration, and MDAQMD Notification Form**



Image shown may not reflect actual package

## STANDBY 2000 kW PRIME 1825 kW POWER MODULE 50/60 Hz

Frequency	Voltage	Standby kW (kVA)	Prime kW (kVA)
60	480/277V	2000 (2500)	1825 (2281)
50	400V	1440 (1800)	1310 (1638)

### FEATURES

EPA TIER 2 and CARB certified for non-road mobile applications. Factory designed, certified prototype tested with torsional analysis. Production tested and delivered in a package that is ready to be connected to your fuel and power lines. Supported 100% by your Caterpillar® dealer with warranty on parts and labor. Extended warranty available in some areas. The generator set is designed and manufactured in an ISO 9001:2000 compliant facility. Generator set and components meet or exceed the following specifications: AS1359, AS2789, ABGSM TM3, BS4999, DIN6271, DIN6280, EGSA101P, JEM1359, IEC 34/1, ISO3046/1, ISO8528, NEMA MG1-22

#### CATERPILLAR SR4B GENERATOR

Single bearing, wye-connected, static regulated, brushless permanent magnet excited generator designed to match the performance and output characteristics of the Caterpillar diesel engine driving it.

#### RELIABLE, FUEL EFFICIENT DIESEL ENGINE

The compact, four-stroke-cycle diesel engine combines durability with minimum weight while providing dependability and economy. The fuel system operates on a variety of fuels.

#### CATERPILLAR COOLING SYSTEM

Sized compatible to rating with energy efficient fan and core.

#### CATERPILLAR SWITCHGEAR

Provides single unit and/or multi-unit/utility paralleling components. Standby, load sense/load demand, import, export, and base load modes. Comes standard with Basler Utility Multi-function Relay IPS-100.

#### EXCLUSIVE CATERPILLAR DIGITAL VOLTAGE REGULATOR (CDVR)

Three-phase sensing and adjustable Volts-per-Hertz regulation give precise control, excellent block loading, and constant voltage in the normal operating range.

#### ENVIRONMENTALLY FRIENDLY

110% spill containment of onboard engine fluids.

#### SOUND ATTENUATED CONTAINER

For ease of transportation and protection. Meets 75 dB(A) at 50 ft or below per SAE J1074 measurement procedure at 110% prime load.

## FACTORY INSTALLED STANDARD EQUIPMENT

SYSTEM	STANDARD EQUIPMENT
<b>Engine</b>	<p>EPA approved Tier 2 3516C Caterpillar engine  Heavy duty air cleaner with service indicator  60-Amp charging alternator  Fuel filters – primary and duplex secondary with integral water separator and change-over valve  Lubricating oil system with spin-on, full flow oil filters and water cooled oil cooler  Oil drain lines routed to engine rail  Jacket water heater  Fuel cooler and priming pump  Electronic ADEM™ A3 controls  24V electric starting motors with battery rack and cables</p>
<b>Generator</b>	<p>SR-4B brushless, permanent magnet excited, three-phase with Caterpillar digital voltage regulator (CDVR), space heater, 6-lead design, Class H insulation operating at Class F temperature for extended life, winding temperature detectors and anti-condensation space heaters (120/240V 1.2 kW)</p>
<b>Containerized Module</b>	<p>40' ISO high cube container, CSC certified  3-axle, 40' ISO container chassis  Seven (7) sound attenuated air intake louvers and 4 lockable personnel doors with panic release  Side bus bar access door, external access load connection bus bars  Shore power connection via distribution block connections for jacket water heater, battery charger, space heaters, and generator condensate heaters  Standard lighting 3 AC/4 DC, one (1) single duplex service receptacle, 2 external break-glass emergency stop push buttons  1,250 gal fuel tank, UL listed, double wall, 9 hr runtime @ prime rating  Sound attenuated 75 dB(A) @ 50 ft  Spill containment 110% of all engine fluids  Four (4) oversized maintenance-free batteries, battery rack and 20-Amp battery charger  Hospital grade, internally insulated, rectangular exhaust silencer with vertical discharge  Vibration isolators, corrosion resistant hardware and hinges  External drain access to standard fluids  Fire extinguishers (Qty 2)  Standard Cat rental decals and painted standard Cat power module white  Interior walls and ceilings insulated with 100 mm of acoustic paneling  Floor of container insulated with acoustic glass and covered with galvanized steel</p>
<b>Cooling</b>	<p>Standard cooling provides 43° C ambient capability (60 Hz) at prime +10% rating  Vertically mounted, separate ATAAC and JW cores with vertical air discharge</p>
<b>Generator Paralleling Control</b>	<p>Custom switchgear control with EMCP 3.3 genset mounted controller and wall mounted paralleling controls  Automatic start/stop with cool down timer  Protections: 25, 27/59, 40, 32, 81 O/U  Utility multi-function relay protections: 25,27/59, 32, 47, 50/51, 62, 67, 81 O/U  UMR is IEEE1547-2003 compliant in most applications  Reverse compatibility module provided for interface to legacy power modules  Touch screen controls with event log  Multi-mode operation (island, multi-island and utility parallel), load sharing (multi-unit only)  Import &amp; export control (utility parallel only), manual and automatic paralleling capability  Touch screen display (status and alarms)  Metering display: voltage, current, frequency, power factor, kW, WHM, kVAR, and synchroscope</p>
<b>Quality</b>	<p>Standard genset and package factory tested  UL, NEMA, ISO and IEEE standards  O&amp;M manuals</p>

## SPECIFICATIONS

### CAT SR4B GENERATOR

Frame Size ..... 825  
 Pitch ..... 0.6667  
 No. of poles ..... 4  
 Excitation ..... Static regulated brushless PM excited  
 Constructions ..... Single bearing, close coupled  
 Insulation ..... Class H  
 Enclosure ..... Drip proof IP22  
 Alignment ..... Pilot shaft  
 Overspeed capability – % of rated ..... 125% of rated  
 Voltage regulator ..... 3 phase sensing with Volts-per-Hertz  
 Voltage regulation ..... Less than  $\pm 1/2\%$  voltage gain  
 Adjustable to compensate for engine speed droop and line loss  
 Wave form deviation ..... Less than 5% deviation  
 Telephone Influence Factor (TIF) ..... Less than 50  
 Harmonic Distortion (THD) ..... Less than 5%

### CAT 3615C DIESEL ENGINE

3516C C-16, 4-Stroke diesel  
 Bore – mm (in) ..... 170 (6.7)  
 Stroke – mm (in) ..... 190 (7.5)  
 Displacement – L (cu in) ..... 69 (4,210)  
 Compression ratio ..... 15:1  
 Aspiration ..... ATAAC  
 Fuel system ..... EUI  
 Governor type ..... Caterpillar ADEM™ A3 Control System

## TECHNICAL DATA

Materials and specifications are subject to change without notice.

Generator Set Technical Data		50 Hz		60 Hz	
	Units	Prime	Standby	Prime	Standby
<b>Performance Specification</b>		DM8754		DM8264	
<b>Power Rating</b>	kW (kVA)	1310 (1637)	1440 (1800)	1825 (2281)	2000 (2500)
<b>Lubricating System</b>					
Oil pan capacity	L (gal)	401.3 (106)		401.3 (106)	
<b>Fuel System</b>					
Fuel Consumption					
100% load	L (gal)	350.1 (92.5)	372.9 (98.5)	483.2 (127.6)	525.7 (138.9)
75% load	L (gal)	281.9 (74.5)	302.8 (80)	380 (100.4)	408.2 (107.8)
50% load	L (gal)	205.5 (54.3)	350.1 (92.4)	270.5 (71.5)	294.2 (77.7)
Fuel tank capacity	L (gal)	4731 (1,250)		4731 (1,250)	
Running time @ 75% rating	Hours	16.7	15.6	12.5	11.5
<b>Cooling System</b>					
Radiator coolant capacity including engine	L (gal)	630 (166)		630 (166)	
<b>Air Requirements</b>					
Combustion air flow	m <sup>3</sup> /min (cfm)	114.8 (4052)	118.1 (4173)	174.7 (6169)	180.3 (6367)
Maximum air cleaner restriction	kPa (in H <sub>2</sub> O)	6.2 (24.9)		6.2 (24.9)	
Generator cooling air	m <sup>3</sup> /min (cfm)	140 (5,933)		168 (4,995)	
<b>Exhaust System</b>					
Exhaust flow at rated kW	m <sup>3</sup> /min (cfm)	311.3 (10,993)	320.8 (11,335)	404 (14,260)	428.6 (15,137)
Exhaust stack temperature at rated kW – dry exhaust	°C (°F)	502.1 (935.8)	513.1 (955.6)	387 (728)	405 (762)
<b>Noise Rating (with enclosure)</b>					
@ 7 meters (23 feet)	dB(A)	77	78	78	79
@ 15 meters (50 feet)	dB(A)	73	74	74	75

Model	Length mm (in)	Width mm (in)	Height mm (in)	Weight	
				With Lube Oil and Coolant kg (lb)	With Fuel, Lube Oil and Coolant kg (lb)
XQ2000 w/o Chassis	12 192 (480)	2438 (96)	2896 (114)	34 019 (75,000)	38 102 (84,000)
XQ2000 w/Chassis	12 192 (480)	2438 (96)	4267 (168)	38 102 (84,000)	42 184 (93,000)

## RATING DEFINITIONS

**Standby** – Applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The generator on the generator set is peak prime rated (as defined in ISO8528-3) at 30° C (86° F).

**Prime** – Applicable for supplying continuous electrical power (at variable load) in lieu of commercially purchased power. There is no limitation to the annual hours of operation and the generator set can supply 10% overload power for 1 hour in 12 hours.

## STANDARD FEATURES

### GENERATOR SET EMCP 3.3 LOCAL CONTROL PANEL

- Generator mounted EMCP 3.3 provides power metering, protective relaying and engine and generator control and monitoring.
- Provides MODBUS datalink to paralleling control for monitoring of engine parameters.
- Convenient service access for Caterpillar service tools (not included).
- Integration with the CDVR provides enhanced system monitoring.
- Ability to view and reset diagnostics of all controls networked on J1939 datalink.
- Network modules via the control panel removes the need for a separate service tool for troubleshooting.
- Real-time clock allows for date and time stamping of diagnostics and events.

### EMCP 3.3 ENGINE OPERATOR INTERFACE

- Graphical display with positive image, transreflective LCD, adjustable white backlight/contrast.
- Two LED status indicators (1 red, 1 amber).
- Three engine control keys and status indicators (Run/Auto/Stop).
- Lamp test key.
- Alarm acknowledgement key.
- Display navigation keys.
- Two shortcut keys: Engine Operating Parameters and Generator Operating Parameters.
- Fuel level monitoring and control.

### CIRCUIT BREAKER

- 3000A fixed type, 3 poles, genset mounted, electrically operated, insulated case circuit breaker.
- Solid state trip unit for overload (time overcurrent) and fault (instantaneous) overcurrent protection.
- Includes DC shunt trip coil activated on any monitored engine or electrical fault, 100 KA-interrupting capacity at 480 VAC.

### VOLTAGE REGULATION AND POWER FACTOR CONTROL CIRCUITRY

- Generator mounted automatic voltage regulator, microprocessor based.
- Manual raise/lower voltage adjust capability and VAR/power factor control circuitry for maintaining constant generator power factor while paralleled with the utility.
- Includes RFI suppression, exciter limiter and exciter diode monitoring.
- Voltage and power factor adjustments are performed on the setting screen of the HMI touch screen.

### FUEL TANK

- UL Listed 1250 gallon double walled.
- Fuel transfer system

### CURRENT TRANSFORMERS

- CT's rated 3000:5 with secondaries wired to shorting terminal strips.

### POTENTIAL TRANSFORMERS

- 4:1 ratio with primary and secondary fuse protection.

### BUS BARS

- Three phase, plus full rated neutral, bus bars are tin-plated copper with NEMA standard hole pattern for connection of customer load cables and generator cables.
- Bus bars are sized for full load capacity of the generator set at 0.8 power factor.
- Includes ground bus, tin-plated copper, for connection to the generator frame ground and field ground cable.

### AC DISTRIBUTION

- Transformer distributes utility voltage for the 16 spaces (minimum) Power Module AC panel board.
- Provides 240 VAC for all module accessories.
- Includes controls to de-energize jacket water heaters and generator space heater when the engine is running.

### SHORE POWER TWO (2)

- One (1) shore power connection distribution block for jacket water heaters.
- One (1) for generator space, battery charger, and fuel pump.

### INTERNAL LIGHTING

- Four (4) internal DC lights with one (1) timer and two switches installed at each side of the container door.
- Three (3) internal AC lights.
- One (1) single duplex service receptacle.

### BATTERY CHARGER AND BATTERIES

- 24 VDC/20A battery charger with float/equalize modes and charging ammeter.
- Maintenance free batteries.

### EMERGENCY STOP PUSHBUTTON

- Two external ESPs located near each access door.

## MODES OF OPERATION

Caterpillar utility paralleling controls are intended for automatic or manual paralleling with a utility power source as a load management system, with provisions for standby operation feeding an isolated load network. Load management operation involves microprocessor-based automatic loading controls with soft loading, base load, Import/Export control and soft unloading. For Standby operation, the generator operates as an isochronous machine isolated from the utility supply. The controls allow for automatic operation, initiated locally or remotely by the customer's SCADA system. Detailed modes of operation are listed below:

### SINGLE UNIT ISLAND AND MULTI-UNIT ISLAND OPERATION

1. Utility Standby Mode (Normal)
  - a. The utility is providing power for the plant loads.
  - b. The Power Module Generator breaker is open.
  - c. The pm is in automatic standby mode to respond to a utility failure.
2. Emergency Mode (Emergency)
  - a. Utility Failure
    - 1) The customer protective relaying senses a utility abnormal condition.
    - 2) A run request is sent to the Power Module Generator plant.
    - 3) The first Power Module Generator reach rated to voltage and frequency is closed to the bus.
    - 4) In Multi-Unit Island Mode, the remaining Power Module Generators are paralleled to the bus as they reach rated voltage and frequency. This function is performed via the ModBus Plus data link connected between the Power Modules.
    - 5) Plant load is transferred to the Power Modules, which share load equally via ModBus Plus data link.
    - 6) The system is now in Emergency Mode.

### GENERATOR DEMAND PRIORITY CONTROL

The System Controls include a Generator Demand Priority Control function to automatically match the on-line Power Module Generator capacity to the loads in order to avoid unnecessary operation of all the Power Module Generators when the plant loads are low.

The following controls are provided for each Power Module Generator:

- a. User-settable Generator Priority Selector
- b. Status indicator for the Generator Priority selected
- c. Status indicator for Power Module Generator on-line or off-line
- d. Generator Demand Priority Control Switch (On/Off)
- e. User-settable Generator Remove Level (% as a function of single generator capacity)
- f. User-settable Generator Remove Time Delay
- g. User-settable Generator Add Level (% as a function of single generator capacity)
- h. User-settable Generator Add Time Delay

Upon entrance into Emergency Mode, all generators will be started and paralleled to the bus. After the Remove Time Delay, Power Module Generators will be removed from the bus as a function of the generator percentage loading. Generators will be removed from the bus in descending priority order.

Should the generator percentage loading increase to the user-selected Generator Add Level after the user-selected Generator Add Time Delay, the next priority generator will be started, synchronized and paralleled to the bus. Should the Power Module Generator plant ever reach 100% loading, the next priority generator will be started and added to the bus, bypassing the Generator Add Time Delay.

## MODES OF OPERATION (continued)

### SINGLE UNIT IMPORT, EXPORT OR BASE LOAD OPERATION

During periods of peak demand the system may be placed in operation using the operator interface panel on the front of the switchgear.

#### 1. Entry – Local

- a. The operator places the System Control Switch into Load Management.
- b. The operator selects Import, Export or Base Load Operation.
- c. The Load Management Setpoint is the amount of power Imported, Exported or Base-Loaded. A 4-12-20mA signal is provided by the customer and is linearly proportional to the utility load, with 12mA equaling 0 kW. The 4-12-20mA utility load signal is wired to one and only one Power Module. If the Power Module selected for Load Management is not available, the 4-12-20mA signal will be routed to a different Power Module.
- d. The operator sets the Load Management Setpoint and Power Factor Setpoint.
- e. A Run request signal is received by the Single Unit Power Module.
- f. The Power Module Generator is started and will run for a predetermined warm-up time before it is synchronized and paralleled to the utility.

- g. When the generator is on the bus, it is soft-ramp-loaded until the generator output reaches the Load Management Setpoint.
- h. The generator output is dynamically adjusted to maintain the Load Management Setpoint.
- i. Should the utility fail during Load Management Operation, the Protective Relay will cause the Paralleling Circuit Breaker 52G to open and be locked out until the Lockout Relay is manually reset by an operator on site. The generator is allowed to run for the duration of the cooldown time.

#### 2. Exit – Local

- a. The Run Request signal is removed from the power module.
- b. The generator is soft-ramp-unloaded until the plant load is fully supported by the utility.
- c. The Paralleling Circuit Breaker 52G is opened.
- d. The generator is allowed to run for the duration of the cooldown time.

## STANDARD PARALLELING CONTROL

### GENERATOR PARALLELING CONTROLS

The switchgear includes:

- Single unit island mode.
- Multiple unit island mode.
  - Includes Load Sense/Load Demand control.
  - Load sharing capability is provided via network communication.
- Single unit utility parallel mode.
  - Selectable for Import/Export control.
  - If import or export control is selected a 4-12-20mA signal is required (provided by others) scalable to the utility contribution.
- 6 inch black and white HMI touch screen.
- Reverse compatibility module provided for interface to legacy designed Power Module Switchgear. Includes PLC, load share and voltage droop.

**Incoming Utility Breaker Status Circuit** – Circuit to accept customers contact from remote utility disconnect device. Customer to provide a normally open form 'a' contact to indicate when the local load network is connected to the utility grid.

**Utility Transfer Trip Circuit** – Circuit accepts input (normally open dry contact) from customer's system protective relay(s) or other controlling device. Operation of contacts causes tripping of the generator circuit breaker via the generator (software) 86 lock-out function and places the engine in cooldown mode. Circuit is disabled when operating in single unit or multiple unit island.

### GENERATOR PARALLELING CONTROLS OPERATOR INTERFACE

Graphical mimic one line diagram that shows generator with its respective circuit breaker in a one-line representation of the system. The graphics utilize black and white indicators and bar graphs while actively displaying the following information:

- Utility CB Open/Closed. Input contacts provided by others.
- Utility kW 4-12-20mA signal required and provided by customer that is scalable to the utility contribution.
- Generator CB Open/Closed/Tripped.
- Generator Volts/Amps/kW/Frequency.
- Engine Stopped/Running/Cooldown/Pre-Alarm/Shutdown.
- Engine ECS Position Stop/Auto/Run.
- Utility Output kW.
- System Summary Alarm.

Event logging is also included with up to 500 stored events.

### GENERATOR METERING AND PROTECTION

Generator metering that will graphically display 3Ø Voltage, 3Ø Current, Frequency, Power Factor, kW, kVAR and a Synchroscope Display of EMCP 3.3 faults, CDVR or ADEM 3 will be provided via Modbus RTU interface to EMCP 3.3.

Generator/Intertie Protective Relaying including:

- Device 27/59 – Under/Over Voltage.
- Device 81O/U – Under/Over Frequency.
- Device 40 – Loss of Excitation.
- Device 32 – Reverse Power.
- Device 25 – Synchronizing Check.
- Device 15 – Auto Synchronizer.
- Device 65 – Governor Load Sharing, Soft Loading Control.
- Device 90 – VAR/PF and Cross Current Compensation Controller.

### PROGRAMMING AND DIAGNOSTICS

Includes field programmable set points for engine control and monitoring variables and self-diagnosis of the EMCP 3.3 system component and wiring failures.

### ENGINE CONTROL SWITCH

Keypad selectable, four (4) positions – Off, Auto, Man, Cool:

- Off for engine shutdown and resetting faults.
- Auto for local or remote automatic operation when initiated by switch operation or contact closure.
- Man for local starting and manual paralleling.
- Cool for normal engine shutdown with timed cool-down cycle.

### CIRCUIT BREAKER CONTROL SWITCH

Heavy duty, three- (3) position spring return to center with momentary trip and close position and slip contacts for automatic closing. Includes circuit breaker position indicating lamps.

### EMERGENCY STOP PUSHBUTTON

- Mushroom head, twist to reset, causes engine shutdown and tripping of the generator circuit breaker. Prevents engine starting when depressed.

## STANDARD PARALLELING CONTROL (continued)

### ELECTRONIC LOAD SHARING GOVERNOR

- Includes speed adjustment, and auto load share capability when in parallel with legacy power modules.

### ALARM MODULE

- Dedicates annunciator screens for warning and shutdown faults. Includes external mounted horn and acknowledge push-button.

### AUTOMATIC/MANUAL PARALLELING

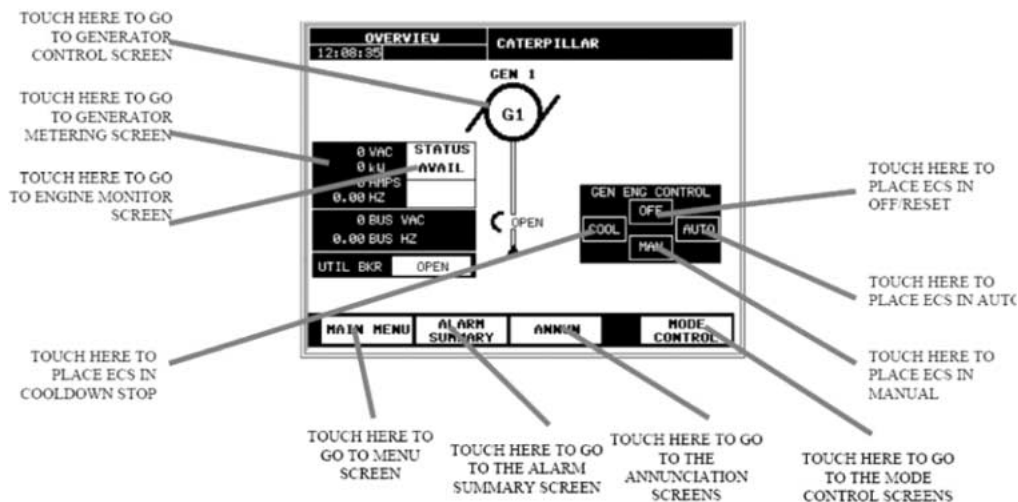
- Automatically synchronizes and parallels the generator with another power source.
- Includes provisions for manual permissive paralleling.

### HUMAN MACHINE INTERFACE (HMI) HIGHLIGHTS

- Engine/Generator function is performed thru the 6" HMI touch screen interface.

### Overview Screen (Typical)

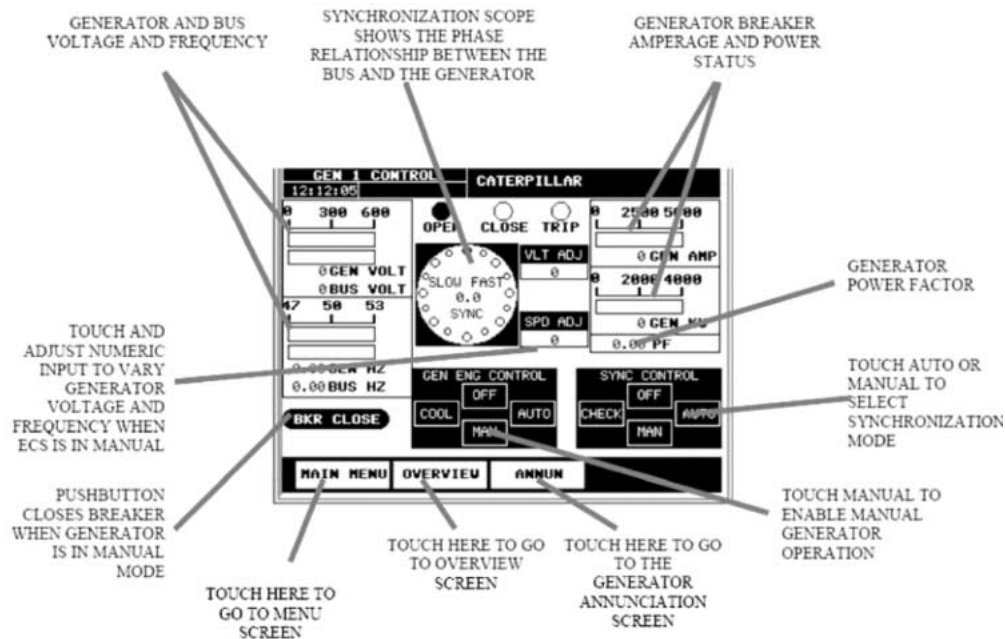
Shows the generator status, generator metering data, bus metering data, ECS position, and generator/utility breaker status.



## STANDARD PARALLELING CONTROL (continued)

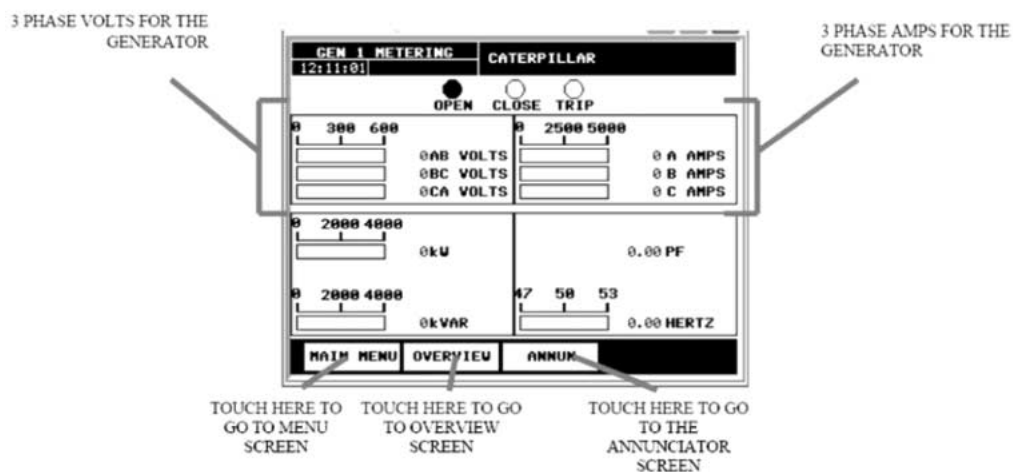
### Generator Control Screen (Typical)

It allows the operator to observe the automatic synchronization and transfer of the load to and from the generator. Engine control allows the operator to run the engine in manual, or switch to automatic modes. Voltage and frequency offset adjustment allows the operator to control generator frequency and voltage.



### Generator Metering Screen (Typical)

Allows the operator to view three phases of voltage and amperage for the bus and the generator.



## STANDARD PARALLELING CONTROL (continued)

### Engine Monitoring Screen (Typical)

Engine status is obtained directly from the EMCP 3. Engine starts and total hours can be used by the operator to determine when regular preventive maintenance is required. Other metering includes engine battery and oil filter health.

EMCP 3.3 ENGINE DATA

The diagram illustrates the EMCP 3.3 ENGINE DATA screen, which is divided into two main panels. Each panel displays a list of engine parameters and their current values. The left panel shows parameters such as Engine Oil Pressure, Engine Coolant Temp, Battery Volts, Engine RPM, Engine Hours, Automatic Start, Number of Crank Attempts, Number of Success Starts, Exhaust Manifold 1 Temp, Exhaust Manifold 2 Temp, and Engine Oil Temperature. The right panel shows parameters such as Crankcase Pressure, Boost Pressure, Air Filter Differential, Total Fuel Consumption, Instantaneous Fuel Consumption, Atmospheric Pressure, Engine Operating Mode, Engine Status, Fuel Pressure, Oil Filter Diff Press, and Fuel Filter Diff Press. Both panels have a 'MAIN MENU' button at the bottom left, an 'OVERVIEW' button at the bottom center, and an 'ANNUN' button at the bottom right. Arrows point to these buttons with the following instructions: 'TOUCH HERE TO GO TO MENU SCREEN' (pointing to MAIN MENU), 'TOUCH HERE TO GO TO OVERVIEW SCREEN' (pointing to OVERVIEW), and 'TOUCH HERE TO VIEW ADDITIONAL ENGINE DATA' (pointing to ANNUN).

GEM 1 ENG MONITOR		CATERPILLAR	
15:42:12			
ENGINE OIL PRESSURE	0	kPa	▲
ENGINE COOLANT TEMP	0	°C	▲
BATTERY VOLTS	0.0	VOLTS	▲
ENGINE RPM	0	RPM	▲
ENGINE HOURS	0	HOUR	▲
AUTOMATIC START			
NUMBER OF CRANK ATTEMPTS	0		▲
NUMBER OF SUCCESS STARTS	0		▲
EXHAUST MANIFOLD 1 TEMP	0	°C	▲
EXHAUST MANIFOLD 2 TEMP	0	°C	▲
ENGINE OIL TEMPERATURE			
0	°C		▲
MAIN MENU OVERVIEW ANNUN			

GEM 1 ENG MONITOR		CATERPILLAR	
15:44:28			
CRANKCASE PRESSURE	0	kPa	▲
BOOST PRESSURE	0	kPa	▲
AIR FILTER DIFFERENTIAL	0	kPa	▲
TOTAL FUEL CONSUMPTION	0	L	▲
INSTANTANEOUS FUEL CONSUMPTION	0	L	▲
ATMOSPHERIC PRESSURE	0	kPa	▲
ENGINE OPERATING MODE	STOP		
ENGINE STATUS	NOT READY TO GO		
FUEL PRESSURE	0	kPa	▲
OIL FILTER DIFF PRESS	0	kPa	▲
FUEL FILTER DIFF PRESS	0	kPa	▲
MAIN MENU OVERVIEW ANNUN			

TOUCH HERE TO GO TO MENU SCREEN

TOUCH HERE TO GO TO OVERVIEW SCREEN

TOUCH HERE TO VIEW ADDITIONAL ENGINE DATA

Information contained in this publication may be considered confidential.

Discretion is recommended when distributing.

Materials and specifications are subject to change without notice.

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www.cat-electricpower.com



Linda S. Adams  
Secretary for  
Environmental Protection

## Air Resources Board

Mary D. Nichols, Chairman  
1001 I Street • P.O. Box 2815  
Sacramento, California 95812 • [www.arb.ca.gov](http://www.arb.ca.gov)



Arnold Schwarzenegger  
Governor

# Statewide Portable Equipment Registration

Registration No: 145953

Legal Owner or Operator:

Empire Power Systems

Mailing Address:

840 N. 43rd Avenue  
Phoenix, AZ 85009

Engine Description:

Certified non-road portable internal combustion engine, compression ignition,  
Caterpillar, model 3516 C DITA, Serial No: MHB00164,  
(Unit Number: E104500), rated at 2721 bhp and diesel fueled.

U.S. EPA Engine Family Name:

8CPXL78.1T2E

Conditions:

see attached

Home District:

Imperial County Air Pollution Control  
District

Engine Inspection Discount:

No inspection discount claimed



Expiration Date: December 31, 2011

Jorge Fernandez  
Chief, Program Evaluation Branch  
Stationary Source Division

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption.  
For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.

California Environmental Protection Agency

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## **Statewide Portable Equipment Registration**

**The following operating conditions apply for registration 145953**  
Engine Serial No.: MHB00164

### **General Requirements**

1. The engine shall be properly maintained and kept in good operating condition at all times.
2. The registration identification sticker shall be affixed in a visible location on the registered portable engine at all times. The metal placard shall be securely affixed on a vertical surface of the portable engine in a location that is readily visible from a distance. A legible copy of the registration certificate and operating conditions shall be kept on site with the portable engine and shall be made accessible to the Air Resources Board or district representative upon request.
3. Engine fuel shall meet standards for California motor vehicle fuels as set forth in Chapter 5, Division 3, Title 13, of the California Code of Regulations, or shall have been verified through the In-Use Strategies to Control Emissions From Diesel Engines verification procedure per Title 13 of the California Code of Regulations commencing with section 2700.
4. The engine and any replacement engine shall not reside at the same location for more than 12 consecutive months.
5. The operation of this engine shall not cause a public nuisance.
6. The engine shall be equipped with operational and properly maintained non-resettable hour time meter.
7. For each rental engine or an engine used in a third party rental transaction, the owner shall provide each person who rents the portable engine with a copy of the registration certificate, including operating conditions, as part of the rental agreement.
8. The operator of a portable engine or equipment unit shall obtain district authorization prior to operation at any specific location where the Statewide registration is not valid.
9. This registration is not valid for operation of generators used to provide power into the grid, except during an emergency event or other unforeseen event that affects grid stability.
10. This registration is not valid for operation of generators used to provide primary or supplemental power to a building, facility, stationary source, or stationary equipment except during the following scenarios: unforeseen interruptions of power from the serving utility; maintenance and repair operations; electrical upgrade operations that do not exceed 60 calendar days; and remote operations where grid power is unavailable.
11. This registration is not valid for operation within the boundaries of the California Outer Continental Shelf and State Territorial Waters.
12. The portable engine shall not be operated under both statewide registration and a district permit at any specific location.

**The following operating conditions apply for registration 145953**

Engine Serial No.: MHB00164

13. This registration is not valid for operation of an engine that powers an equipment unit that has been determined by the Air Resources Board to qualify as part of a stationary source permitted by a district.
14. Except for engines owned by a rental business, the owner/operator of this engine shall contact the local air district prior to operation at an agricultural source.
15. For each rental engine or an engine used in a third party rental transaction, a written copy of the rental or lease agreement must be kept onsite at all times.

**Emission Limitations**

16. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann 1 or equivalent to 20% opacity.

**Recordkeeping**

17. Recordkeeping requirements applicable to a rental engine or an engine that is part of a third party rental transaction shall include the registration number of the engine; date of the start and end of the rental transaction; hours of operation for each rental period; location of use (by district, county or specific location); and written (signed) acknowledgment by each renter of having received the registration certificate and operating conditions. These records shall be maintained at a central location for a minimum of five years, and made accessible to the Air Resources Board or districts upon request.
18. For non-rental engines operating together as a project, records for each project shall be maintained separately for each project and shall consist of the following: the registration number; recordings from an hour meter, fuel meter, or other approved device; the location of the project identified by district, county or specific location; and the dates of the recordings. Readings from the meters shall be recorded prior to the commencement of the operation and at the completion of the project, or if operating at multiple locations within a stationary source, readings shall be recorded at the beginning and end of each calendar week.
19. All records shall be maintained at a central place of business for a minimum of five years, and made accessible to the Air Resources Board or district representative upon request.
20. Records shall be kept when the engine is undergoing service, repair, or maintenance that include recordings from an hour meter, fuel meter, or other approved device and the dates of such recordings.

**The following operating conditions apply for registration 145953**  
**Engine Serial No.: MHB00164**

**Reporting & Notification**

21. When this engine is sold, the new owner shall submit a change of ownership application within 30 days of the change in ownership. If an application is not received within 30 days of the ownership change, the existing registration is not valid for the new owner until the application has been filed and all applicable fees have been paid.
22. Starting in 2008, the owner of a registered engine shall provide the Air Resources Board with an annual report by March 1st after the end of the reporting year which is signed by the designated responsible official and consisting of: the reporting year, registration number of each engine, and quarterly summaries of either total hours of operation or fuel usage by district or county.
23. Starting in 2008, the owner of a registered rental engine or an engine used in a third party rental transaction shall provide the Air Resources Board with an annual report by March 1st after the end of the reporting year which is signed by the designated responsible official and consisting of: the reporting year, registration number of each engine, and total annual hours of operation for that reporting year, beginning and ending hour meter readings, dates hour meter readings were recorded, list of all counties of operation, and an estimate of the percentage of total hours operated in each listed county.
24. The owner of a registered portable engine shall notify the Executive Officer in writing within five days of replacing the registered portable engine with an identical replacement. The notification shall include company name, the responsible official, phone number, registration number, make, model, rated brake horsepower, and serial number of the identical replacement, description of the mechanical breakdown, and applicable fees.

**Fleet Average Requirements**

25. Except for low-use engines and engines used exclusively in emergency applications, for engines greater than or equal to 750 bhp, a weighted fleet average PM emission factor of 0.25 g/bhp-hr shall be met by **January 1, 2013**, 0.08 g/bhp-hr shall be met by **January 1, 2017**, and 0.02 g/bhp-hr shall be met by **January 1, 2020**. Changes in the fleet, including engine additions and deletions, shall not result in noncompliance with this standard.
26. The weighted fleet average PM emission factor shall be calculated by taking the summation of the emission factor for each engine in the fleet multiplied by the bhp rating for each engine and then dividing that summation by the summation of the bhp ratings for all the engines in the fleet.

**The following operating conditions apply for registration 145953**  
**Engine Serial No.: MHB00164**

27. The weighted fleet average PM emission factor calculation shall use the test results from nonroad emission standard certification, test results from a verified emission control strategy as defined in Title 13 of the California Code of Regulations Section 93116.2, or the test results from a SCR system. All test results shall be made available to the Air Resources Board upon request.
28. Where equipment uses grid power for more than 200 hours in lieu of operating a portable diesel engine for a given project, the time period grid power is used may be used to reduce each affected engine's emission factor. The emission factor for each affected portable engine shall be reduced proportionally by the percentage of time the equipment uses grid power.
29. The weighted fleet average PM emission factor shall include all portable engines, including those permitted or registered with a local air district, that are owned and managed by an individual operational entity, such as a business, business unit within a corporation, or individual city or state department under the control of a Responsible Official. Engines that are owned by different business entities that are under the common control of only one Responsible Official shall be treated as a single fleet.

**Fleet Recordkeeping**

30. Starting January 1, 2012, the responsible official of a fleet shall keep records of annual operating hours for non-diesel fueled portable engines used as part of a company's fleet average, engines affected by the use of electrification, low-use engines, and engines used exclusively in emergency applications.
31. All records pertaining to the fleet average shall be maintained at a central place of business for a minimum of five years, and made accessible to the Air Resources Board or district representative upon request.

**Fleet Reporting and Notification**

32. The Responsible Official of a fleet shall submit to the Air Resources Board the fleet's weighted average PM emission rate for the 2010 calendar year, including an inventory of portable engines in the fleet, by March 1, 2011. The engine inventory shall include make, model, serial number, year of manufacture, primary fuel type, PM emission factor (g/bhp-hr), and district permit or State registration number for each engine to be used in the fleet average determination.
33. The Responsible Official of a fleet shall submit to the Air Resources Board by March 1, 2011 a list of all low-use engine, engines used exclusively in emergency operations, and alternative-fueled engines added to the fleet prior to January 1, 2009. The list shall include for each engine: make, model, serial number, and district permit or State registration number.

**The following operating conditions apply for registration 145953**  
Engine Serial No.: MHB00164

34. The Responsible Official of a fleet shall submit to the Air Resources Board by March 1, 2013, March 1, 2017, and March 1, 2020 a signed statement of compliance that the fleet standards are being achieved. The Statement of compliance shall include for each engine in the fleet: make, model, serial number, fuel type, PM emission factor (g/bhp-hr), and district permit or State registration number. If compliance with the fleet average includes the use of electrification, the Responsible Official shall provide documentation supporting the credit claimed for electrification.
35. As part of each statement of compliance, the Responsible Official shall, if applicable, certify that all alternative-fueled engines included in the fleet average operated at least 100 hours during the previous 12 months prior to the fleet emission standard becoming effective, for all engines exclusively used in emergency applications, the engines were used only for emergency applications, for all engines using the low-use designation, the engines operated no more than 80 hours for the reporting period, and for all portable diesel-fueled engines equipped with SCR, the engine complies with applicable district or Statewide Portable Equipment Registration Program requirements.
36. The Responsible Official of a fleet electing to use electrification in determining the fleet average shall notify prior to the start of the project the Executive Officer of the dates, location of the project, and make, model, serial number, district permit or State registration number of the affected engines. In addition, the notification shall clearly identify the electrification activity, including indicating the amount of electricity used and the time period for the project.

**Inspection Requirements**

37. Within 45 days after initial issuance or renewal of a registration, the owner or operator shall contact the home district to arrange for inspection to be completed within one year of the initial registration or renewal date. If the engine is operating in a district other than the home district, the owner or operator may request the home district to arrange an inspection by that other district.
38. For the purposes of scheduling inspections of multiple engines in order to qualify for an inspection fee discount, the owner or operator shall submit, within 45 days of initial registration issuance date or by January 30 of each year for renewals, a letter of intent to the home district that shall include an engine list with registration numbers of those to be inspected.
39. The time for the arranged inspection shall be agreed upon in advance between the district and the company. To the extent that an arranged inspection does not fall within the district's normal workday, the district may charge for the off-hour time.
40. If an arranged inspection does not occur due to unforeseen circumstances, the inspection shall be rescheduled for no later than 90 days from the initially scheduled inspection.

**The following operating conditions apply for registration 145953**  
**Engine Serial No.: MHB00164**

41. If the engine is out of California for one year or more following initial registration or renewal, the engine shall be excused from having the arranged inspection provided that within 45 days after the date of initial registration or renewal, the owner sends a letter to the district containing the registration number and a statement that the registered engine or equipment unit is out of California for the one-year period. Upon the return of the engine to California, the owner shall arrange to have the engine inspected within 30 days.



Linda S. Adams  
Secretary for  
Environmental Protection

## Air Resources Board

Mary D. Nichols, Chairman  
1001 I Street • P.O. Box 2815  
Sacramento, California 95812 • [www.arb.ca.gov](http://www.arb.ca.gov)



Arnold Schwarzenegger  
Governor

December 16, 2008

David Amann  
Empire Power Systems  
840 N. 43rd Avenue  
Phoenix, AZ 85009

Dear David Amann:

RE: Application # 19471

We have completed the evaluation of your December 10, 2008 application for registration in the Statewide Portable Equipment Registration Program. Based on our evaluation, registration will be issued for the engine(s)/equipment unit(s) listed in Attachment 1.

Enclosed with this letter is a registration certificate, operating conditions, and a sticker for each engine/equipment unit listed. A copy of the registration certificate and operating conditions must be kept with the engine/equipment unit or on the immediate premises at all times. In addition, for each engine/equipment unit listed, a green metallic placard and a second sticker with placement instructions will be mailed separately **only if inspection fees were paid** with the registration application. Please place the sticker(s) included with this letter on the engine(s) or equipment unit(s) for which it was issued.

**As a requirement of registration, the owner or operator of the registered portable engine/equipment unit may be subject to district inspection requirements if listed in the attached operating conditions. Please review the operating conditions immediately and carefully.** If it is specified in the attached operating conditions, please contact the home district to arrange an inspection as required. Any violation of the operating conditions may result in enforcement action by either the districts or the Air Resources Board.

Please indicate your application number, listed above, on any future correspondence with us regarding the Statewide Registration Program. If you have any questions regarding your registration, please call Carol Carlson at (916) 445-1365.

Sincerely,

Jorge Fernandez, Chief  
Program Evaluation Branch  
Stationary Source Division

Enclosures

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.*

California Environmental Protection Agency

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**PERP LOCAL AIR DISTRICT NOTIFICATION FORM***This page last reviewed September 4, 2008*

Section 2459 of Article 5 (Title 13) of the California Code of Regulations states that if a registered equipment unit will be in a district for more than five days, the owner or operator shall notify the district by electronic mail, in writing, via facsimile, or by telephone, within two working days of commencing operations in that district. The notification shall include all the items shown in the form below.

The regulation also states that if the owner or operator did not expect the duration of operation in the district to trigger the notification requirement, the owner or operator shall notify the district within 12 hours of determining that the equipment unit will be operating in the district for more than five days.

You may use the following online form to notify the affected air district if you are required to comply with Section 2459.

All of this information is important, so please be sure to completely fill out the form before submitting it. If you have any questions about filling out the form, please direct them to the local air district. Here is a list of local air districts if you need it: [Click Here](#)

**MOJAVE DESERT AQMD**

PERP Registration No.: (six digits)	<input type="text"/>
Company Name:	<input type="text"/>
Contact Person :	<input type="text"/>
Contact Person Telephone Number :	<input type="text"/>
Location Where Equipment Unit Will Be Operated:	<input type="text"/>
Date of Equipment Arrival:	<input type="text"/>
Estimated Time in District (Days):	<input type="text"/>
<input type="button" value="Submit"/>	<input type="button" value="Reset"/>

Statewide Portable Equipment Registration Program

The Board is one of six boards, departments, and offices under the umbrella of the California Environmental Protection Agency.  
[Cal/EPA](#) | [ARB](#) | [CIWMB](#) | [DPR](#) | [DTSC](#) | [OEHHA](#) | [SWRCB](#)



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7711 Imperial Drive • P.O. Box 20128 • Waco, Texas 76702-0128  
(254) 772-9740 • Wats (800) 433-3346 • Fax (254) 772-0016

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## BRIEF HISTORY OF VANTRAN

Incorporated in 1963, VanTran is an independent transformer manufacturer, having years of experience in the industry. VanTran is dedicated to serving the industry's needs for specialty transformers in addition to providing standard types. The VanTran staff of key personnel average over 25 years experience. VanTran has endeavored to incorporate the best from each background into the operation.

VanTran manufactures a complete line of pole-mount, pad-mount, substation and specialty transformers through 7,500-kVA, 34-kV, both mineral oil and flame resistant liquid filled. VanTran operates its own fleet of trucks and provides delivery direct to the job site or warehouse.

VanTran is a member of the National Electrical Manufacturer's Association and actively participates in NEMA and American National Standards Institute meetings relating to the various product lines.

The history of the distribution transformer lists many contributions to the present day product which were developed by independent manufacturers. As an independent American manufacturer, VanTran has an obligation to keep pace with the industry by continued contributions to product development.

Herein will be found general information about VanTran. A complete catalogue is available upon request.

## MULTI-TAP RENTAL DUTY TRANSFORMER

VanTran Industries, Inc., offers a specially designed liquid filled transformer for use in the generation and rental power industries.

The unit is available up to 5000 KVA and is designed to step up 480 volts

to numerous commonly used output voltages ranging from 2400 to 14400, both delta and wye.

External dual voltage switch, delta wye switch, and tapchanger makes changing output voltages easy.

The unit is ruggedly constructed, designed specifically for, and well suited to, the demands of the rental power market.

Versions of this transformer are in wide use by many of the leading rental power dealers. This is not a modified "Utility Type" design. It is fabricated to meet your exact needs.



### LIQUID FILLED TRANSFORMER

We are confident you will find this transformer a valuable addition to your rental power fleet. The flexibility, versatility, and reliability of this transformer are unmatched.

Contact us for pricing or additional information.

Call VanTran Industries, Inc.  
for your next transformer requirement.

**1-800-433-3346**

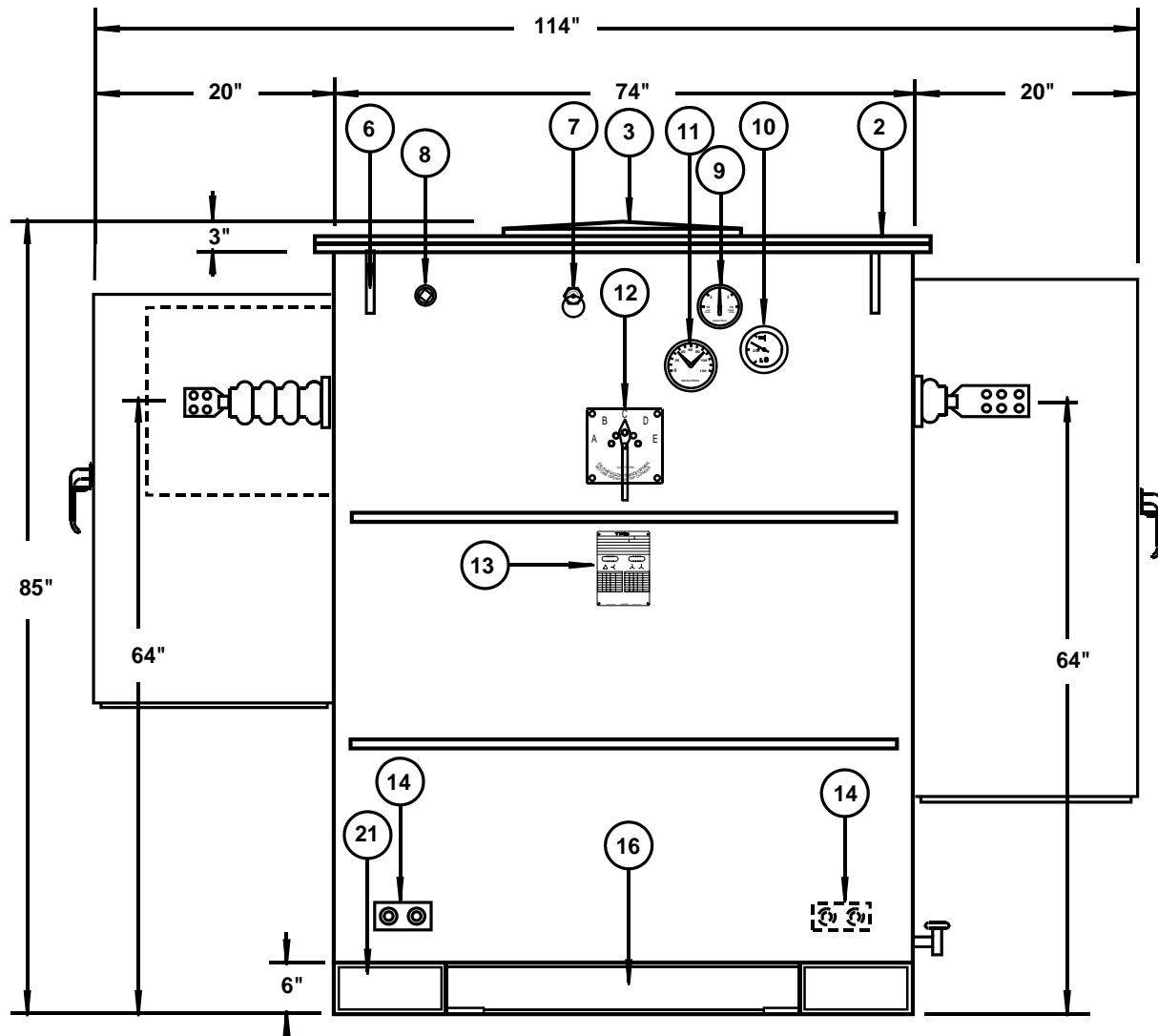
# SUBSTATION TYPE TRANSFORMER - MINERAL OIL FILLED

THREE PHASE

OISC

65°C RISE

60 HERTZ



PRINTS FOR RECORD

P.O. #

TOT. WT. = 18000 #

TRANS. IZ. = 5.75 %

S.O. \$

GAL. OIL = 800

95 KV B.I.L.

1 EACH 2500 KVA - 2400 DELTA X 4160Y/2400 X 7200 DELTA X 12470Y/7200 - 480Y/277 WITH TAPS IN  
8320 - 7970 - 7620 - 7200 - 6928 DELTA  
14400Y - 13800Y - 13200Y - 12470Y - 120000Y VOLTS



WACO, TX.

DRAWN BY	CHECKED BY	SHEET 1 OF 5
JS	JS	
DATE	DATE	DRAWING NUMBER
02-05-01	02-05-01	5626

# **VANTRAN**

**WACO, TEXAS**

**2500 KVA SUBSTATION TYPE TRANSFORMER  
THREE-PHASE**

**OISC**

**MINERAL OIL FILLED  
65°C RISE**

**60-HERTZ**

- 1 RADIATORS (FLEXOPLATE) (AS REQUIRED).
- 2 WELDED ON COVER.
- 3 BOLTED ON INSPECTION PLATE.
- 4 TAMPERPROOF REMOVABLE HIGH VOLTAGE TERMINAL CHAMBER CABINET WITH THREE POINT LATCHING LIFT OFF PADLOCKABLE DOOR WITH STAINLESS STEEL HINGES AND REMOVABLE BOTTOM WITH CONDUIT OR CABLE ENTRANCE. HIGH VOLTAGE TERMINAL CHAMBER SUPPLIED WITH THREE EACH HIGH VOLTAGE BUSHINGS WITH NEMA 4 HOLE SPADE TERMINALS. ONE EACH HIGH VOLTAGE NEUTRAL BUSHING WITH NEMA 4 HOLE SPADE TERMINAL AND REMOVABLE GROUND STRAP.
- 5 TAMPERPROOF REMOVABLE LOW VOLTAGE TERMINAL CHAMBER CABINET WITH THREE POINT LATCHING LIFT OFF PADLOCKABLE DOOR WITH STAINLESS STEEL HINGES AND REMOVABLE BOTTOM WITH CONDUIT OR CABLE ENTRANCE. LOW VOLTAGE TERMINAL CHAMBER SUPPLIED WITH THREE EACH LOW VOLTAGE BUSHINGS WITH NEMA 6 HOLE SPADE TERMINALS. ONE EACH LOW VOLTAGE NEUTRAL BUSHING WITH NEMA 6 HOLE SPADE TERMINAL AND REMOVABLE GROUND STRAP.
- 6 LIFTING HOOKS (4 EACH REQUIRED).
- 7 AUTOMATIC PRESSURE RELIEF VALVE.
- 8 ONE INCH FILLING PLUG.
- 9 PRESSURE VACUUM GAUGE.
- 10 LIQUID LEVEL GAUGE.
- 11 DIAL TYPE THERMOMETER.
- 12 EXTERNALLY OPERATED NO-LOAD TAPCHANGER PADLOCKABLE IN ANY POSITION.
- 13 DIAGRAMMATIC CORROSION RESISTANT NAMEPLATE.
- 14 TWO EACH STAINLESS STEEL GROUND PADS, ONE ON BACK SIDE OF TANK.
- 15 ONE INCH DRAIN VALVE WITH OIL SAMPLING DEVICE AND FILTER PRESS CONNECTION.
- 16 TRANSFORMER BASE WITH PROVISIONS FOR ROLLING.
- 17 TRANSFORMER FILLED WITH NON-P.C.B. MINERAL OIL AT TIME OF MANUFACTURE.
- 18 EXTERNALLY OPERATED NO-LOAD DELTA-WYE SWITCH.



WACO, TX

DRAWN BY	CHECKED BY	SHEET
JS	JS	2 OF 5
DATE 02-05-01	DATE 02-05-01	DRAWING NO. 56261

# VANTRAN

WACO, TEXAS

2500 KVA SUBSTATION TYPE TRANSFORMER  
THREE-PHASE

OISC

MINERAL OIL FILLED  
65°C RISE

60-HERTZ

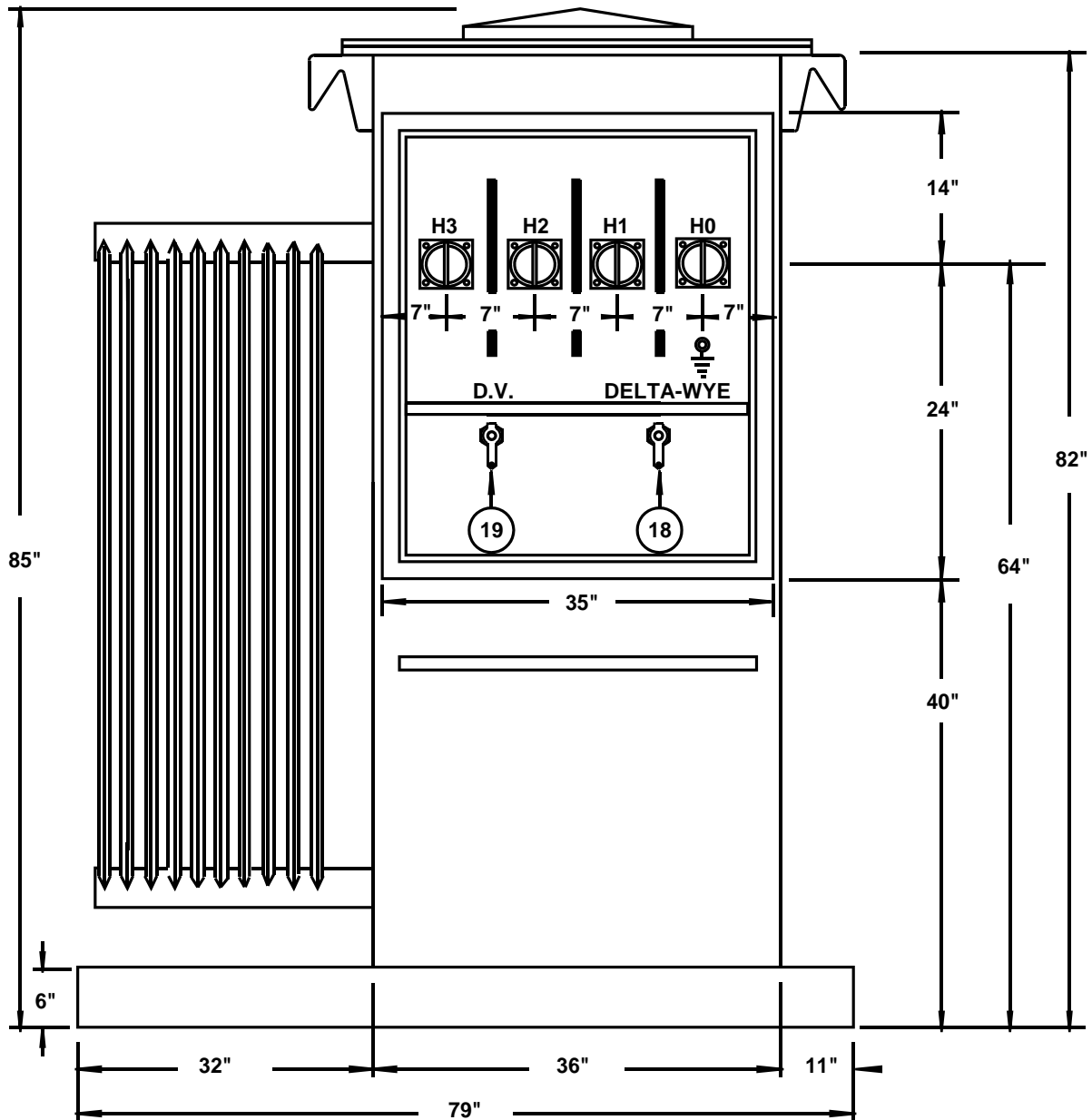
- 19 EXTERNALLY OPERATED NO-LOAD DUAL VOLTAGE SELECTOR SWITCH.
- 20 PROVISIONS FOR JACKING.
- 21 FORK TRUCK LIFTING PROVISIONS.
- 22 BOTTOM OF TRANSFORMER UNDERCOATED TO PREVENT CORROSION.
- 23 PAINT COLOR CAT. WHITE.




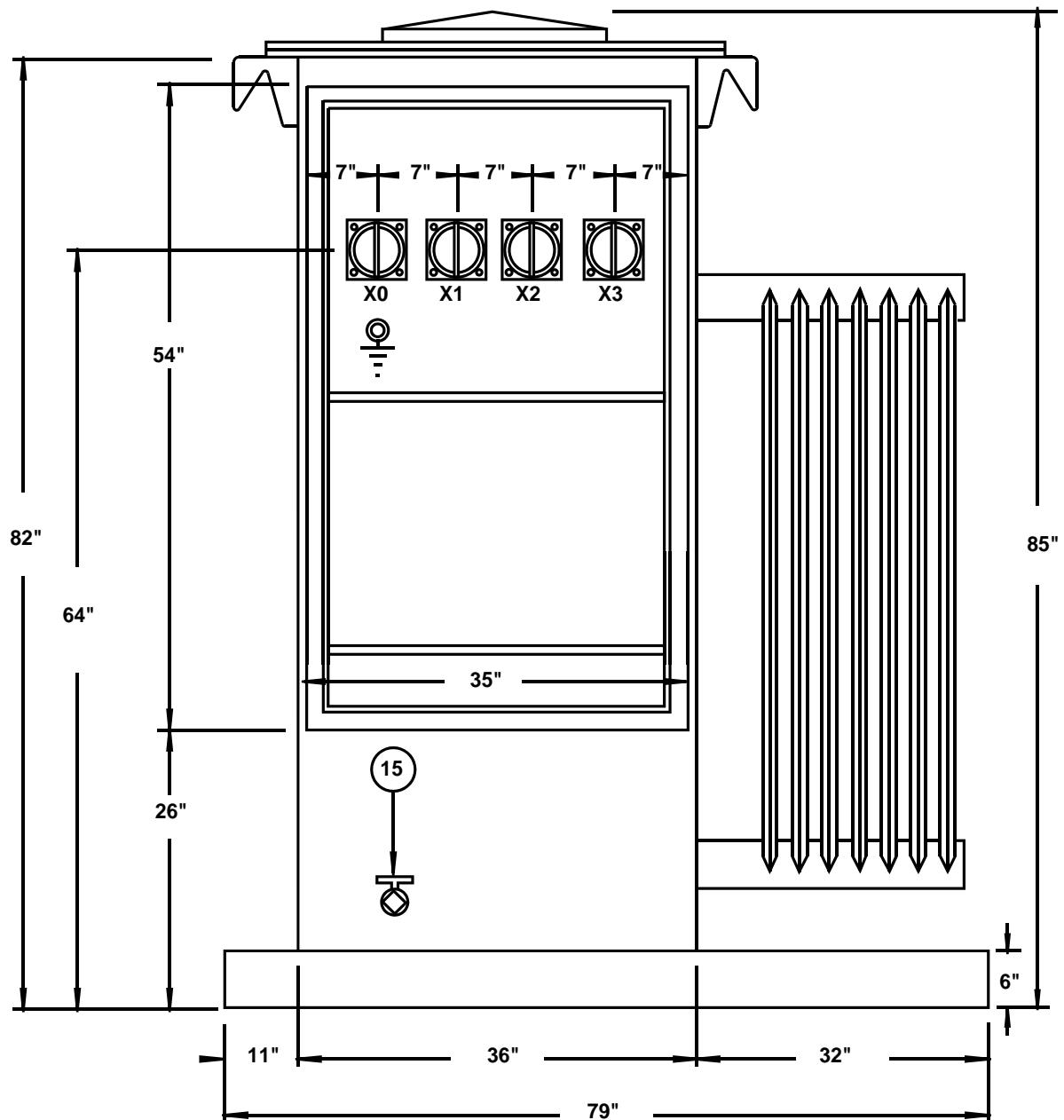
**Vantran**

WACO, TX

DRAWN BY	CHECKED BY	SHEET
JS	JS	3 OF 5
DATE	DATE	DRAWING NO.
02-05-01	02-05-01	56261



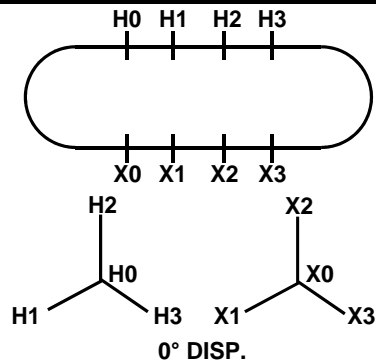
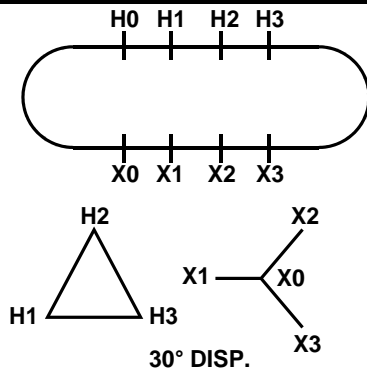
 <b>Varian</b> WACO, TX.		
DRAWN BY	CHECKED BY	SHEET 4 OF 5
JS	JS	
DATE	DATE	DRAWING NUMBER
02-05-01	02-05-01	
		56262



DRAWN BY	CHECKED BY	SHEET 5 OF 5
JS	JS	
DATE	DATE	DRAWING NUMBER
02-05-01	02-05-01	56263



S/N	01V5626	TYPE	CZ
KVA	2500	65 °C RISE	5.75 % IMP. @ 85 °C
INSULATING LIQUID	MINERAL OIL FILLED "NON-P.C.B."		800 GAL.
THREE PHASE	CLASS OA	60 HERTZ	INST. BOOK V-100
VOLTAGE RATING	2400 DELTA X 7200 DELTA - 480Y/277		
	4160GRDY/2400 X 12470GRDY/7200 - 480Y/277		



DELTA HIGH VOLTAGE CONNECTIONS				
VOLTS	AMPS	T.C. ON	DELTA-WYE SWITCH ON	DUAL VOLTAGE SWITCH ON
2400	601	D	1	1
8320	173	A	1	2
7970	181	B	1	2
7620	189	C	1	2
7200	200	D	1	2
6928	208	E	1	2

WYE HIGH VOLTAGE CONNECTIONS				
VOLTS	AMPS	T.C. ON	DELTA-WYE SWITCH ON	DUAL VOLTAGE SWITCH ON
4160 Y	347	D	2	1
14400 Y	100	A	2	2
13800 Y	105	B	2	2
13200 Y	109	C	2	2
12470 Y	116	D	2	2
12000 Y	120	E	2	2

CAUTION: TAPCHANGER MUST BE ON D POSITION FOR 2400 VOLTS

CAUTION: TAPCHANGER MUST BE ON D POSITION FOR 4160 Y VOLTS

NOTE: HO AND XO BUSHING MUST BE SOLIDLY GROUNDED WHEN THE DELTA -WYE SWITCH IS IN POSITION 2 (GROUNDED Y)  
 NOTE: WHEN GRDY VOLTAGE IS USED ON DELTA FEED, DROP THE NEUTRAL AT THE HIGH VOLTAGE SIDE OF TRANSFORMER. CONNECT H1, H2 AND H3 TO THE DELTA SYSTEM.

TOTAL WEIGHT 18000 #

TRANSFORMER BY

**VANTRAN**

WACO, TEXAS

NP-201



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7711 Imperial Drive · P.O. Box 20128 · Waco, Texas 76702-0128  
(254) 772-9740 · Wats (800) 433-3346 · Fax (254) 772-0016

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## V-100 OPERATION AND MAINTENANCE

### INSPECTION ON RECEIPT

VanTran transformers are thoroughly tested and rigidly inspected before being shipped from the factory. On receipt, check materials against the bill of lading and report shortages to the carrier before signing receipt. Check for damage that may have been incurred in transit. A damaged crate indicates rough handling and if this condition is found make a close inspection of the transformer. Note all visible damage on the carrier's copy of the freight receipt, file a damage claim with the transportation company and immediately notify VanTran.

### HANDLING AND STORAGE

Lifting lugs, welded to all distribution transformer tanks, are provided for lifting the complete unit. These lifting lugs may also be used for handling the units before crates are removed. Since distribution transformers are built for outdoor service, no special precautions need be taken for storage. It is recommended, however, that transformers be left on pallets to keep the tanks above accumulated rain water and to prevent accidental bumping and bushing breakage.

### PREPARATION

Distribution transformers are shipped filled with insulating fluid to the proper level and are ready to be put in service. Before installation, however, each transformer should be examined for leakage, bushing breakage during shipment or storage, and the possible entrance of moisture.

If there are indications of fluid leakage, the leaks must be located and corrected, the dielectric fluid level checked and fluid added if necessary. The standard dielectric fluid used in VanTran distribution transformers is Exxon

Univolt-61, or equivalent, a high grade inhibited transformer fluid containing .3% ditert butyl paracresol. The fluid level at 25 degrees Celsius is marked on the inside of the transformer tank.

If the transformer has absorbed moisture, it must be dried and the fluid filtered or replaced.

Transformers, when shipped, are connected in the following manner:

- High-voltage windings with taps are connected for rated voltage.
- High-voltage windings of single-phase transformers designed for series-multiple operation are connected for the series voltage.
- Low-voltage windings of single-phase transformers designed for series-multiple and three-wire operation, where the connections are made inside the tank, are connected for three-wire operation.
- Three-wire transformers with low-voltage windings rated 240 x 480 are connected for 480 operation.

If it is desired to change transformer connections from the connections as shipped, complete data are to be found on the diagrammatic nameplate affixed to the transformer tank or compartment.

Conventional single-phase distribution transformers with low-voltage rated 120/240 volts or 240/480 volts, are suitable for series, parallel or three-wire connection by changing internal leads at the bushing studs. When the three-wire connection is used, loads should be balanced as

closely as possible and in no case should more than one-half the rated kVA be taken between an outside terminal and neutral.

If leads are reconnected internally at the low-voltage bushing stud to obtain two-wire service, maintain at least one inch clearance between live parts.

When two sections of a low-voltage winding are connected in parallel outside the transformer tank, the connections should be made as close to the bushings as possible to keep the leads as short as practicable.

### **--- C A U T I O N ---**

**Never remove the cover from a transformer unless the transformer temperature is equal to or higher than the surrounding air temperature.**

When replacing the cover, make sure the sealing gasket is properly seated.

## **INSTALLATION**

**(Overhead-Type)**

All single-phase transformers 333-kVA and smaller, 16.34-kV and below, and three-phase transformers 300-kVA and smaller, 13.8-kV and below, may be bolted directly to the pole or suspended from crossarms by means of hangers. Support lugs, hangers and kickers conform to the latest standards of the American National Standards Institute.

Transformers should always be mounted in a vertical attitude. Excessive tilt may result in the dielectric fluid not covering energized parts, thus weakening the dielectric strength of the transformer.

High-voltage cover-mounted bushings are equipped with solderless connectors arranged for vertical take-off. Either copper or aluminum conductors may be used.

On conventional single-phase distribution transformers with one fully insulated high-voltage bushing, the other end of the high-voltage winding being grounded internally to the tank, connect the high-voltage bushing directly to the phase line. The low-voltage neutral is grounded to the tank externally. The tank must be connected to the neutral line and must also be grounded at the pole.

Refer to the diagrammatic nameplate for low-voltage connection data and connect the low-voltage terminals to the service lines as necessary to obtain the desired voltage.

When single-phase, three-wire service is supplied from a single-phase transformer, the neutral is usually grounded. When two-wire service is supplied, one of the leads is usually grounded if conditions permit.

Transformers having the same voltage ratio and impedances within  $7\frac{1}{2}\%$  of the larger value, may be successfully operated in parallel, although it is advisable to take current readings to determine the exact load distribution.

VanTran tapchangers are the snap-action type, assuring positive contact in any position. The dials are provided with raised or engraved numerals or letters corresponding to the positions indicated on the nameplate. Clockwise rotation of the handle lowers the secondary voltage and, conversely, counter-clockwise rotation raises the secondary voltage. Position 1 (or A) can always be found at the most counter-clockwise position.

## **--- C A U T I O N ---**

**Do not operate the tapchanger while the transformer is energized.**

When a terminal board is furnished in lieu of a tapchanger, similar results may be obtained by reconnecting in accordance with the instructions as given on the nameplate.

Unless specifically requested otherwise, VanTran distribution class transformers are built to conform to current applicable standards of the American National Standards Institute (ANSI), the Institute of Electrical and Electronic Engineers (IEEE), the National Electrical Manufacturer's Association (NEMA) and the Edison Electric Institute-National Electric Manufacturer's Association (EEI-NEMA).

Maximum service life is realized when transformers operate within the following limits:

1. Ambient temperature, 40 degrees Celsius maximum with the average temperature not exceeding 30 degrees Celsius in any 24-hour period.
2. Installation at altitudes not in excess of 3300 feet above sea level.
3. Continuous load not in excess of rated kVA.
4. Excitation voltage not in excess of 105% of rated while delivering continuous output, or 110% excitation at no load.
5. Suitable protection against lightning since bushing flashover does not provide adequate protection against all forms of natural lightning.

## **MAINTENANCE**

Distribution transformers will give reliable service with a minimum of attention. Because of the relatively small investment, an elaborate program of inspection and

maintenance is not economically feasible. A visual inspection of the exterior of the transformer at approximately two year intervals is recommended. Examine the bushings for cracks and chipped areas and examine the tank for rust.

When broken parts are to be repaired or a tank refinished, it is suggested the transformer be taken out of service and delivered to the service shop for a thorough inspection.

Gaskets should be checked for leaks and if there are indications of moisture having entered the tank, the core and coil assembly should be removed and dried and the fluid either filtered or replaced with dry dielectric fluid. Evacuation of the unit after refilling with liquid dielectric is recommended.

If the transformer is given an insulation test, either before or after repairs are made, the voltage used should not exceed 65% of the factory test voltage.

## **PARTS INFORMATION**

When ordering replacement parts or requesting information regarding transformers, be sure to give the kVA rating and the serial number of the unit or units in question. In addition, describe the parts required. Orders for replacement parts or requests for information should be directed to:

**VanTran Industries, Inc.  
7711 Imperial Drive  
P.O.Box 20128  
Waco, Texas 76702-0128**



7711 Imperial Drive • P.O. Box 20128 • Waco, Texas 76702-0128  
(254) 772-9740 • Wats (800) 433-3346 • Fax (254) 772-0016

## **CERTIFICATE OF COMPLIANCE**

All transformers manufactured by VanTran conform to all American National Standards Institute (ANSI) and National Electrical Manufacturer's Association (NEMA) standards as applicable and where applicable to each transformer. Furthermore, all transformers manufactured by VanTran conform to specific project specifications as provided to and as interpreted by VanTran, where applicable to transformers as manufactured by VanTran.



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7711 IMPERIAL DRIVE • P.O. Box 20128 • WACO, TEXAS 76702-0128  
(254) 772-9740 • WATTS (800) 433-3346 • FAX (254) 772-0016  
sales@vantran.com • www.vantran.com

---

## **CERTIFICATION OF DIELECTRIC FLUID CONTENT**

All VanTran transformers are filled at the time of manufacture at the factory with dielectric fluid, which contains no polychlorinated biphenyl compounds. Supplier's data sheets and test reports are available upon request. All VanTran transformers have affixed to the tank, a label indicating that the unit was manufactured and filled with "No PCB" dielectric fluid according to applicable federal specification 40CFR761, dated 13 May 1979.



## ERGON TYPICAL SPECIFICATIONS

### HYVOLT II

TEST DESCRIPTION	ASTM METHOD	TYPICALS
VISCOSITY, SUS @ 100°F	ASTM D 445	61.0
VISCOSITY, SUS @ 210°F	ASTM D 445	34.2
VISCOSITY, cSt @ 40°C	ASTM D 341	9.8
VISCOSITY, cSt @ 100°C	ASTM D 341	2.4
SPECIFIC GRAVITY, 60°F	ASTM D 4052	0.8890
FLASH POINT, COC, °C	ASTM D 92	149
COLOR, ASTM	ASTM D 6045	L0.5
POUR POINT, °C	ASTM D 5949	-55
INTERFACIAL TENSION, 25°C, dynes/cm	ASTM D 971	51
ANILINE POINT, °C	ASTM D 611	70.4
DIELECTRIC BREAKDOWN Voltage @ 60 Hz, disk electrodes	ASTM D 877	40
POWER FACTOR, % @25°C	ASTM D 924	0.005
POWER FACTOR, % @100°C	ASTM D 924	0.084
OXIDATION STABILITY 72 hr, % Sludge by mass	ADTM D 2440	<0.01
TAN, mg KOH/ g		<0.01
164 hr, % Sludge by mass		<0.01
TAN, mg KOH/ g		<0.01
OXIDATION INHIBITOR CONTENT, wt%	ASTM D 2668	0.25
CORROSIVE SULFUR	ASTM D 1275	Noncorrosive
WATER CONTENT	ADTM D 1533	15
NEUTRALIZATION NUMBER, mg KOH/g	ASTM D 974	<0.01
PCB CONTENT, ppm	ASTM D 4059	0

7/2/01

This product meets ASTM D 3487 and NEMA II requirements.

**HYVOLT II**

Date of Preparation: March 28, 2001

**Section 1 - Chemical Product and Company Identification**

**Product Name:** Hyvolt II  
**Chemical Name:** Severely Hydrotreated Light Naphthenic Distillate  
**Chemical Family:** Petroleum Distillate  
**Chemical Formula:** Not Applicable  
**CAS Number:** 64742-53-6  
**Other Designations:** Contains Oil  
**Manufacturer:** Ergon Refining, Inc., P.O. Box 309, Vicksburg, MS 39181  
**Company Contact:** Will Poe, Phone (601) 630-8319

**EMERGENCY TELEPHONE NUMBERS:**

Ergon Refining, Inc. (601) 638-4960 Normal Business Hours  
 Chemtrec (800) 424-9300 After Business Hours

**Section 2 - Composition / Information on Ingredients**

A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C15 through C30 and produces finished oil with a viscosity near 60 SUS @ 100°F.

Ingredient Name	CAS Number	%
Severely Hydrotreated Light Naphthenic Petroleum Oil	64742-53-6	> 99.7
Butylated Hydroxytoluene (BHT) or 2,6-Di- <i>tert</i> -butyl- <i>p</i> -cresol (DBPC)	128-37-0	< 0.3

**Trace Impurities:**

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA	STEL	TWA	STEL	
Severely Hydrotreated Light Naphthenic Petroleum Oil	5 mg/m <sup>3</sup> (oil mist)	None estab.	5 mg/m <sup>3</sup> (oil mist)	10 mg/m <sup>3</sup> (oil mist)	none estab.	none estab.	none estab.

**Section 3 - Hazards Identification**
**☆☆☆☆☆ Emergency Overview ☆☆☆☆☆**

Not Expected to cause a severe emergency hazard.

**Potential Health Effects**

**Primary Entry Routes:** Skin

**Inhalation:** Inhalation of vapors or mist may be irritating to respiratory passages. Prolonged exposure may result in dizziness and nausea.

**Eye:** Eye contact may result in irritation and redness.

**Skin:** Prolonged and repeated contact can defat the skin, which may result in dryness, dermatitis, and cracking of the skin.

**Ingestion:** May result in nausea or stomach discomfort.

**Carcinogenicity:** Based on OSHA 1910.1200 and IARC study requirements, this product does not require labeling.

Meets EU requirement of less than 3% (w/w) DMSO extract for total polycyclic aromatic compound (PAC) using IP-346.

**Medical Conditions Aggravated by Long-Term Exposure:** Personnel with pre-existing skin disorders should avoid contact with this product.

**HMIS**  
**H** 1  
**F** 1  
**R** 0  
**PPE†** B  
 †Sec. 8

## Section 4 - First Aid Measures

**Inhalation:** Remove to fresh air. Assist breathing if necessary. Seek medical help.

**Eye Contact:** Wash with water. If irritation or redness persists seek medical help.

**Skin Contact:** Wash thoroughly with soap and water. Remove contaminated clothing. Reuse only after cleaning.

**Ingestion:** If swallowed, observe for signs of stomach discomfort or nausea. If symptoms persist, seek medical help.

## Section 5 - Fire-Fighting Measures

**Flash Point:** 295°F (145 °C)

**Flash Point Method:** COC

**Burning Rate:** Not available

**Autoignition Temperature:** > 600 °F (> 315 °C)

**Lower Explosive Level (LEL):** Not determined

**Upper Explosive Limit (UEL):** Not determined

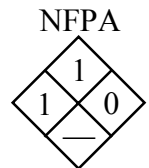
**Flammability Classification:** OSHA Class III-B Combustible Liquid

**Extinguishing Media:** Halon, dry chemical, foam, CO2 and water mist or fog. Water may be used to cool below flash point.

**Unusual Fire or Explosion Hazards:** Do not use forced stream as this could cause fire to spread.

**Combustion Products:** Fumes, smoke and carbon monoxide.

**Fire-Fighting Instructions and Equipment:** Use water to cool containers exposed to flames. Do not enter enclosed or a confined work space without proper protective equipment. Fire fighting personnel should wear respiratory protection (positive pressure if available).



## Section 6 - Accidental Release Measures

**Spill /Leak Procedures:** Stop spill at source if possible without risk. Contain spill. Eliminate sources of ignition. Spill area will be slick. Recover all possible material for reclamation. Use non-flammable absorbent material to pick up remainder of spill.

## Section 7 - Handling and Storage

**Handling and Storage Precautions:** Keep away from flames, sparks or hot surfaces. Never use a torch to cut or weld on or near container. Empty oil containers can contain explosive vapors. NFPA Class IIIB storage. Wash thoroughly after handling.

**Work / Hygienic Practices:** Wash hands with soap and water before eating, drinking, smoking or use of toilet facilities. Do not use gasoline, solvents, kerosene, or harsh abrasive skin cleaners for washing exposed skin areas. Take a shower after work if general contact occurs. Remove oil-soaked clothing and launder before reuse. Discard contaminated shoes and leather gloves.

## Section 8 - Exposure Controls / Personal Protection

**Engineering Controls:** Adequate ventilation is required where excessive heating or agitation may occur to maintain concentration below exposure limits.

**Eye / Face Protection:** Safety glasses or face shield where splashing is possible.

**Skin Protection:** As needed to prevent repeated skin contact. Solvent resistant gloves should be used if needed.

**Respiratory Protection:** Not Normally Needed. Respirator should be used in areas where vapor concentrations are excessive due to high temperatures or where oil misting occurs.

**Section 9 - Physical and Chemical Properties****Physical State:** Liquid**Appearance:** Clear, Bright Oily Liquid**Odor:** Mild Petroleum Odor**Odor Threshold:** Not determined**Vapor Pressure:** < 1 mm Hg at 20°C**Vapor Density (Air=1):** > 5**Specific Gravity (H<sub>2</sub>O=1):** 0.88**Water Solubility:** Nil**Boiling Point:** 500-700°F (260-370°C)**Melting Point:** - 65°F ( - 55°C)**% Volatile:** Nil**Evaporation Rate:** Not available**pH:** Not applicable**Section 10 - Stability and Reactivity****Stability:** Stable**Polymerization:** Polymerization will not occur.**Chemical Incompatibilities:** Strong Oxidizers.**Conditions to Avoid (Stability):** Sources of ignition.**Hazardous Decomposition Products:** Combustion products include carbon dioxide and carbon monoxide.**Section 11- Toxicological Information****Acute Studies:** Tests on similar materials show a low order of acute oral and dermal toxicity.**Eye Effects:** Minimal irritation on contact.**Skin Effects:** Practically non-toxic if absorbed. May cause mild irritation with prolonged and repeated exposure.**Acute Oral Effects:** Tests on similar materials indicate low order of acute oral toxicity.**Acute Inhalation Effects:** Low acute toxicity expected on inhalation.

This product is severely hydrotreated. Severely hydrotreated naphthenic petroleum oils have not been found to be carcinogenic or potential carcinogens.

**Section 12 - Ecological Information****Aquatic Release:** Advise authorities if product has entered or may enter watercourses or sewer drains.**Section 13 - Disposal Considerations**

Follow Federal, State, and Local regulations. Not a RCRA hazardous waste if uncontaminated. If "used", RCRA criteria must be determined. Do not flush to drain / storm sewer. Contract to authorized disposal service. If permitted incineration may be practical. Consider recycling.

**Section 14 - Transport Information****Proper Shipping Name:** Not regulated by DOT

(Contains Oil)

**Hazard Class:** Not Applicable**DOT ID No.:** Not Applicable**DOT Shipping Label:** Not regulated by DOT**Section 15 - Regulatory Information**

**U.S. Federal Regulatory Information:**

SARA 311 Categories:	Immediate (Acute) Health Effects	No
	Delayed (Chronic) Health Effects	No
	Fire Hazard	No
	Sudden Release of Pressure Hazard	No
	Reactivity Hazard	No
EPA/TSCA Inventory:	The components of this product are listed on the EPA/TSCA inventory of chemicals. CAS No. 64742-53-6	
Foreign Inventories:	The components of this product are listed under the following foreign inventories: European Union's EINICS No. 265-156-6 Korea's ECL No. KE-12552 Australia's AICS No. 64742-53-6 Canada's DSL No. 64742-53-6	

**Section 16 - Other Information**

**NFPA Hazard Rating**

- Health	1 Slight
- Fire	1 Slight
- Reactivity	0 Least

**Prepared By:** Will Poe      **Phone:** (601) 630-8319

**Supersedes MSDS Dated:** May 21, 1999  
January 1, 2000      Changes: from 100% to > 99.7 %, in section 2

**Disclaimer:** Ergon Refining, Inc. believes this information is accurate but not all-inclusive in all circumstances. It is the responsibility of the user to determine suitability of the material for their purposes. No warranty, expressed or implied, is given.



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7711 Imperial Drive • P.O. Box 20128 • Waco, Texas 76702-0128  
(254) 772-9740 • Wats (800) 433-3346 • Fax (254) 772-0016

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## WARRANTY

This unit is warranted for a period of twelve months from date of shipment to operate under normal load, usage, conditions and competent supervision. Any defects in material or workmanship will be repaired or replaced (at VanTran's option) by VanTran, f.o.b. VanTran's plant. VanTran is not responsible for any consequential losses or damages outside the equipment, nor for repairs or replacement made by others without prior authorization in writing from VanTran. Corrections of defects by repair or replacement by VanTran shall constitute fulfillment of all obligations to the customer.

# Mobile Substation Power Cable • Type SH

## Single Conductor • 5000 to 35000 Volts • 90°C

### Conductors

Flexible tin-coated soft annealed bunch stranded copper meeting ASTM B-33

### Conductor Shield

Combination semi-conducting tape and/or extruded semiconductive thermosetting material

### Insulation Shield

Tin-coated copper braid applied over a semiconductive tape (5-15kV)

### Insulation

Heat, moisture and ozone resisting 90°C Ethylene-Propylene rubber (EPR) meeting ICEA S-75-381/NEMA WC58

### Jacket

CPE meeting ICEA S-75-381/NEMA WC58. Consult factory for availability of other jacket materials.

### Identification

Cable shall be surface printed showing manufacturer, size, voltage rating, type and temperature rating



## Application

These single conductor portable power cables are extremely flexible and specifically designed for use on mobile substation equipment. The Type SH cable is often necessary for supplying power while replacing damaged utility poles or during routine maintenance of substations.

## Features

- Extremely flexible stranding for ease of bending
- The conductor shield is bonded to the insulation – providing easy, clean stripping
- Jacket is heat, oil, flame and chemical resistant
- Continuous conductor temperature 90°C
- Jackets available in voltage colors, yellow (5 & 8kV), orange (15kV), red (25 & 35kV). Consult factory for availability of other colors.

## Ratings & Approvals

- ASTM B-33: Standard Specification for Tinned Soft or Annealed Copper Wire for Electrical Purposes
- ICEA S-75-381/NEMA WC-58: Portable and Power Feeder Cables for Use in Mines and Similar Applications

## 5kV Single Conductor Portable Power Cable – Type SH

Part No. 37-550-	Size AWG/ kcmil	Minimum Wires per Conductor	Nominal Insulation Thickness in.	Nominal Jacket Thickness in.	Nominal Outside Diameter in.	Approx. Weight lbs. per 1,000 ft.	Ampacity 90°C
002	2	259	.110	.125	0.975	674	190
004	1/0	266	.110	.140	1.058	825	260
005	2/0	323	.110	.140	1.170	1039	300
007	4/0	532	.110	.155	1.300	1393	400
008	250	627	.120	.155	1.330	1477	445
022	350	888	.120	.170	1.484	1926	550
010	500	1221	.120	.190	1.700	2662	695

## 8kV Single Conductor Portable Power Cable – Type SH

Part No. 37-550-	Size AWG/ kcmil	Minimum Wires per Conductor	Nominal Insulation Thickness in.	Nominal Jacket Thickness in.	Nominal Outside Diameter in.	Approx. Weight lbs. per 1,000 ft.	Ampacity 90°C
040	1/0	266	.150	.155	1.171	944	260
041	2/0	342	.150	.155	1.226	1064	300
043	4/0	532	.150	.155	1.342	1393	400
044	250	627	.150	.170	1.423	1594	445
045	350	888	.150	.170	1.546	2018	550
047	500	1221	.150	.190	1.718	2642	685

## 15kV Single Conductor Portable Power Cable – Type SH

Part No. 37-550-	Size AWG/ kcmil	Minimum Wires per Conductor	Nominal Insulation Thickness in.	Nominal Jacket Thickness in.	Nominal Outside Diameter in.	Approx. Weight lbs. per 1,000 ft.	Ampacity 90°C
016	2	259	.210	.155	1.203	881	195
017	1/0	266	.210	.155	1.320	1147	260
018	2/0	323	.210	.155	1.350	1226	300
020	4/0	532	.210	.170	1.497	1594	400
021	250	627	.210	.170	1.547	1758	445
009	350	888	.210	.190	1.765	2364	550
024	500	1221	.210	.190	1.900	2937	685

## 25kV Single Conductor Portable Power Cable – Type SH

Part No. 37-550-	Size AWG/ kcmil	Minimum Wires per Conductor	Nominal Insulation Thickness in.	Nominal Jacket Thickness in.	Nominal Outside Diameter in.	Approx. Weight lbs. per 1,000 ft.	Ampacity 90°C
030	1/0	266	.295	.170	1.500	1350	260
031	2/0	323	.295	.170	1.555	1507	300
033	4/0	532	.295	.190	1.713	1909	395
034	250	627	.295	.190	1.763	2085	440
035	350	888	.295	.190	1.886	2517	545
037	500	1221	.295	.205	2.048	3168	680

- Cable diameters and weights are subject to +/- 5% manufacturing tolerance
- Ampacity is calculated with a 90°C conductor temperature and 40°C ambient air, per 2005 NEC, Table 310-69
- Consult factory for availability of 35 kV Type SH cables

## **Appendix F**

### **Proposed Modified Stormwater Pollution Prevention Plan for the Blythe Energy Project Transmission Line**

# **DRAINAGE EROSION AND SEDIMENTATION CONTROL PLAN/ STORM WATER POLLUTION PREVENTION PLAN**

**California Energy Commission  
Sacramento, California**

Prepared by:



**TETRA TECH EC, INC.**

1940 E. Deere Avenue, Suite 200  
Santa Ana, California 92705

Submitted by:

**Blythe Energy, LLC**

**January 2009**

**Revision 2 December 2009**

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## **ABBREVIATIONS AND ACRONYMS**

°F	degrees Fahrenheit
4WD	four-wheel-drive
ACEC	Area of Critical Environmental Concern
BEP	Blythe Energy Project
BEPTL	Blythe Energy Project Transmission Line
BLM	Bureau of Land Management
Blythe Energy	Blythe Energy, LLC
BMP	Best Management Practice
CalTrans	State of California Department of Transportation
CDFG	California Department of Fish and Game
CEC	California Energy Commission
DESC	Drainage, Erosion, and Sedimentation Control
D-PV1	Devers-Palo Verde 1
DWMA	Desert Wildlife Management Area
HAZCOM	hazard communication
I-10	Interstate 10
IID	Imperial Irrigation District
kV	kilovolt
NOI	Notice of Intent
NPDES	National Pollution Discharge Elimination System Permit
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
SCE	Southern California Edison
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board

## **1.0 PROJECT DESCRIPTION**

This Drainage, Erosion, and Sedimentation Control/Storm Water Pollution Prevention Plan (DESC/SWPPP) describes the measures that Blythe Energy, LLC (Blythe Energy) will take to ensure that the Blythe Energy Project Transmission Line (BEPTL) permit requirements are in accordance with the General National Pollution Discharge Elimination System Permit (NPDES Permit 99-08) for Discharges of Storm Water Associated with Construction Activity and the California Energy Commission's (CEC's) Condition of Certification (Appendix A), as described in the CEC's Decision (CEC 2006).

### **1.1 Project History**

Blythe Energy, a subsidiary of FPL Energy, LLC (now NextEra Energy Resources, LLC), is the owner of the Blythe Energy Project (BEP), a 520-megawatt combined-cycle natural-gas-fired electric-generating facility. The BEP is located near the city of Blythe, California, just north of Interstate 10 (I-10), approximately 7 miles west of the California-Arizona border. An Application for Certification was submitted to the CEC in March of 2001 (99-AFC-8). The project received final approval on March 21, 2001, and began commercial operation on July 1, 2003.

### **1.2 Project Description**

On October 10, 2006, the CEC approved an amendment to the BEP Certification for the development of a 67.4-mile, 230-kilovolt (kV) overhead transmission line located between the cities of Blythe and Hayfield in Riverside County, California. The BEPTL will extend west from BEP in Blythe to the Julian Hinds Substation located near Hayfield, California. The transmission line would be located on private lands and Bureau of Land Management (BLM)-managed lands within a 95-foot right-of-way (ROW) generally adjacent to and north of Southern California Edison's (SCE's) existing Devers-Palo Verde 500-kV transmission line (Figures 1 and 2).

The purpose of the BEPTL is to improve the availability of long-term transmission paths for the delivery of the BEP facility electrical output to the Southern California electrical transmission system. The proposed transmission line would connect the BEP energy supply directly into the Southern California electrical grid for the future.

The transmission line will be constructed using concrete or steel monopoles 85 to 130 feet in length, with span lengths ranging from 400 to 1,100 feet, and averaging about 820 feet. These structures will be directly embedded in the ground to a depth of 20 to 25 feet and backfilled with structural fill or concrete. In areas where topography restricts truck access, direct-embedded steel structures will be installed. At transmission line angle locations, the structures will be guyed. If guying is not possible, a steel pole with anchor bolts will be installed on a drilled pier foundation. In three span areas (structures 334-335, 355-356, and 408-409) where terrain inhibits clearance, steel H-frame structures (two-poles) will be

required. The H-frame structures will be directly embedded to a depth of 25 feet and range in length from 120 to 165 feet.

Minor modifications will be made within the fenced and graveled yard of the BEP plant, along with a 0.4-acre expansion of the Julian Hinds Substation to accommodate the BEPTL. The Midpoint Substation will not be constructed.

### **1.3 DESC/SWPP Objectives**

This DESC/SWPPP was developed to address the construction activities associated with the BEPTL. Specifically, the plan addresses the requirements for drainage, erosion, and sedimentation control and ensures protection of water quality and soil resources. The plan also meets the SWPPP requirements of the State Water Resources Control Board (SWRCB) under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, available online at <http://www.swrcb.ca.gov/stormwtr/docs/finalconstpermit.pdf>). This plan addresses the construction phase of the project; however general project operation and maintenance procedures are discussed briefly in Section 3.5.

This DESC/SWPPP was developed and will be amended or revised when necessary, to meet the following objectives:

- Identify all pollutant sources including sources of sediment that may affect the quality of storm water discharges associated with construction activity storm water discharges from the construction site
- Identify non-storm water discharges
- Identify, construct, implement, and maintain Best Management Practices (BMPs) to reduce or eliminate pollutants in storm water discharges and authorized non-storm water discharges from the construction site during construction;
- Develop a maintenance schedule for BMPs installed during construction designed to reduce or eliminate pollutants after construction is completed (post-construction BMPs).
- Identify a sampling and analysis strategy and sampling schedule for discharges from construction activity which discharge directly into water bodies listed on Attachment 3 [of the General Permit] (Clean Water Act Section 303(d) [303(d)] Water Bodes listed for Sedimentation).
- For all construction activity, identify a sampling and analysis strategy and sampling schedule for discharges that have been discovered through visual monitoring to be potentially contaminated by pollutants not visually detectable in the runoff.

### **1.4 Compliance with CEC Certificate Conditions**

The CEC stated the following in its Final Staff Assessment:

*Condition of Certification SOIL AND WATER-1 requires the project owner to comply with all of the requirements of the General NPDES Permit for Discharges of Storm Water Associated with Construction Activity. At this time, the Applicant is preparing a combined DESC/SWPPP, which will serve the purposes of both the CEC and the RWQCB. Condition of Certification SOIL AND WATER-2 requires the project owner to obtain the Commission Compliance Project Manager's (CPM) approval for a site-specific final Drainage, Erosion and Sedimentation Control Plan (DESCP) that addresses all project elements and ensures protection of water and soil resources for both the construction and operational phases of the project. Condition of Certification SOIL AND WATER-3 requires the project owner to comply with all requirements of the General NPDES Permit for Discharges of Storm Water Associated with Industrial Activity.*

Condition of Certification Soil and Water 1 states, in part:

*The project owner shall comply with the requirements of the General National Pollution Discharge Elimination System (NPDES) Permit for Discharges of Storm Water Associated with Construction Activity. The project owner shall develop and implement a Storm Water Pollution Prevention Plan for the construction of the entire project (Construction SWPPP) that meets the State Water Resources Control Board (SWRCB) requirements.*

Condition of Certification Soil and Water 2 states, in part:

*Prior to site mobilization, the project owner shall obtain CPM approval for a site-specific final Drainage, Erosion and Sedimentation Control Plan (DESCP) that addresses all project elements and ensures protection of water and soil resources for both the construction and operation phases of the project. This plan shall address appropriate methods and actions, both temporary and permanent, for the protection of water quality and soil resources, demonstrate no increase in off-site flooding potential, meet local requirements, include legible drawings, details and complete narrative and identify all monitoring and maintenance activities.*

This combined DESC/SWPPP complies with the licensing conditions specified in the Commission Decision (Appendix A).

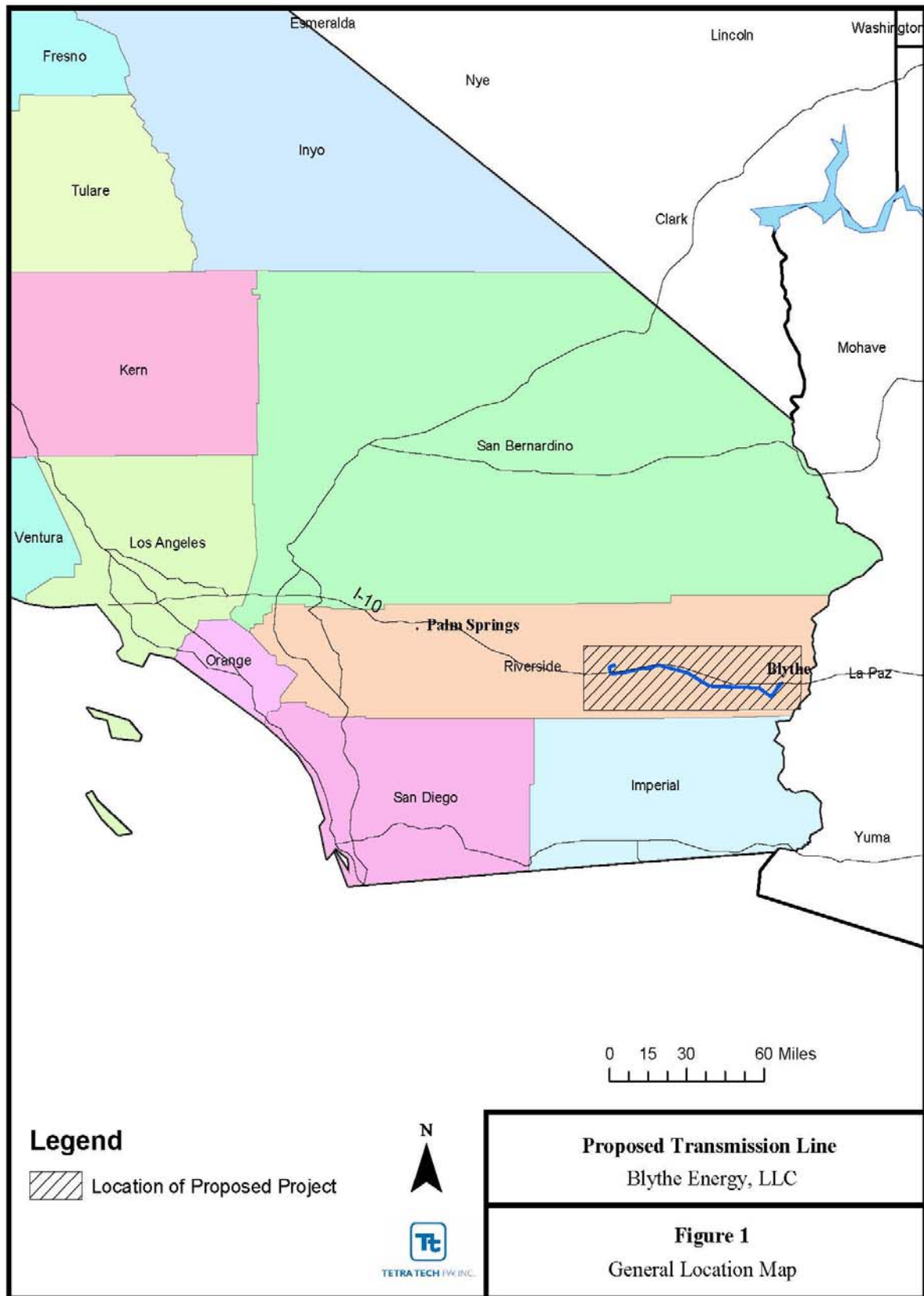
## **1.5 Plan Availability**

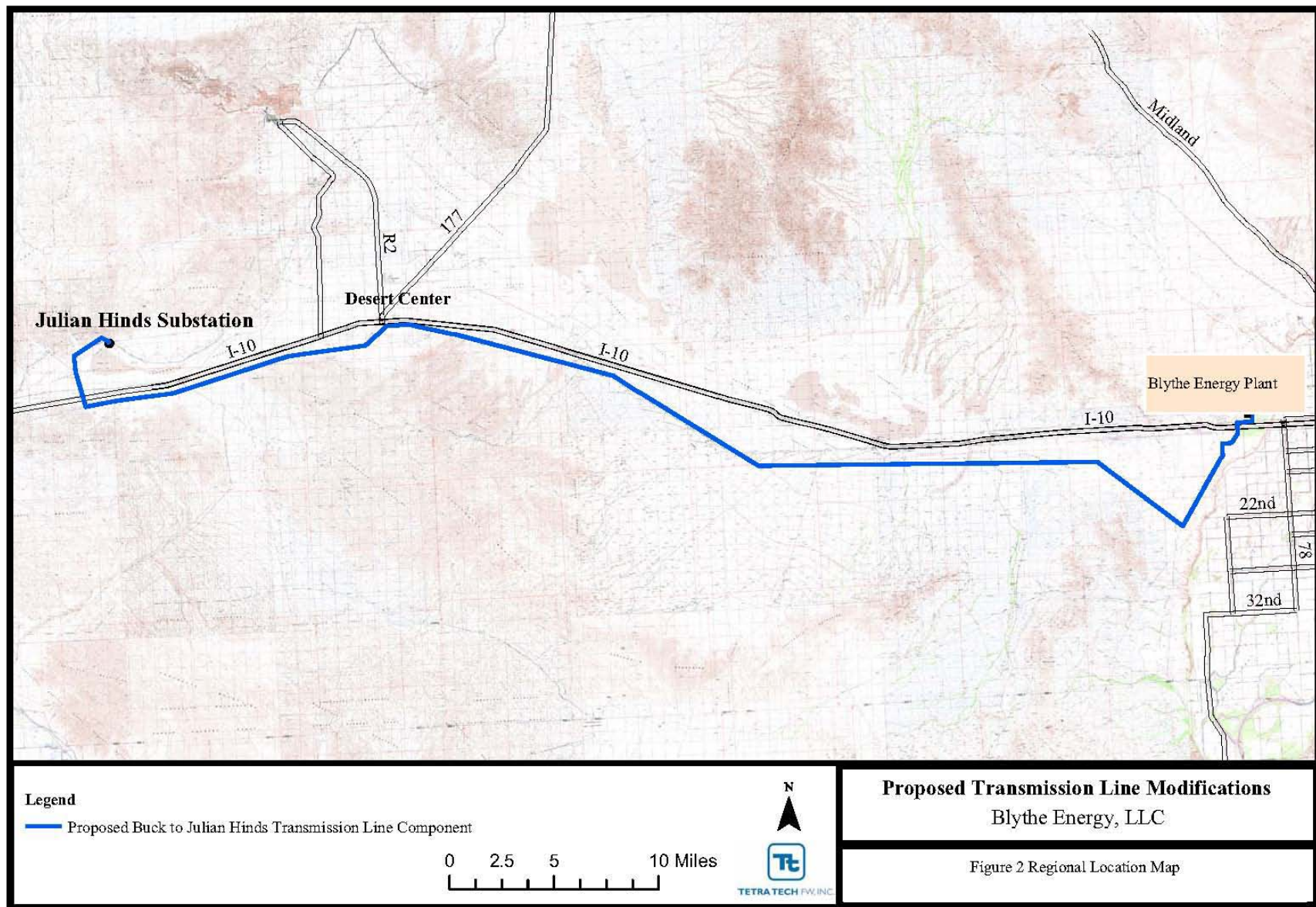
The DESC/SWPPP will remain on the construction site while the project is under construction during working hours, commencing with the initial site preparation activity and ending with termination of coverage under the Construction General Permit. A copy of the Construction General Permit will also be maintained on the construction site. The DESC/SWPPP will be provided to the Regional Water Quality Control Board (RWQCB) upon request. The DESC/SWPPP will also be on file with the CEC and with the South Coast/Palm Springs Field office of the BLM.

## **1.6 Agency Consultation**

Consultation with the U.S. Army Corps of Engineers, Los Angeles District resulted in a non-jurisdictional determination included in Appendix B. Therefore a Section 404 permit is not required, nor is a 401 Water Quality Certification required from the RWQCB. Formal consultation with the California Department of Fish and Game resulted in an Agreement Regarding Proposed Stream or Lake Alteration (1602 Permit). This permit is included in Appendix B and includes the following requirements:

1. Avoid any take of fully listed species
2. Compensate for permanent impacts at a ratio of 3:1 except within the Chuckwalla Desert Wildlife management area and therefore compensate for impacts at a 5:1 ration to desert tortoise habitat through financing land purchases.
3. A minimum of 5 working days prior to commencing any activities in any watercourse, plans must be submitted to the Department's Bermuda Dunes Field Office. Plans must include provisions for managing spill prevention, drawings, schedule, etc.
4. Spoil sites shall not be located within any watercourses where spoil could be washed back into a stream/channel or where it will cover aquatic or desert riparian vegetation. Any materials placed in seasonally dry portions of a 1602 jurisdictional resource that could be washed downstream or that could be deleterious to aquatic life shall be removed from the project site prior to inundation by high flows.
5. Structures and associated materials, including construction debris, that are not designed to withstand high seasonal flows shall be removed to areas above the high water mark before such flows occur.





## **2.0 DESC/SWPPP RESPONSIBILITIES**

This section discusses the DESC/SWPPP responsibilities and identifies personnel who will oversee the implementation of the plan.

### **2.1 DESC/SWPPP Responsibilities**

The Construction General Permit requires the identification of personnel to oversee the implementation of BMPs and periodic updates to the DESC/SWPPP. The following are brief descriptions of the responsibilities each qualified person is assigned to effectively implement the requirements of the DESC/SWPPP during construction activities. Following the description of each responsible person, Table 1 lists the responsible person and telephone number.

#### **2.1.1 Construction Manager**

The Construction Manager is the lead Construction Contractor's representative at the construction site. The Construction Manager is responsible for making sure that the funding, materials, and manpower are available for the successful implementation and maintenance of all storm water control devices and pollution prevention measures. The Construction Manager is also responsible for ensuring the overall success of the DESC/SWPPP.

#### **2.1.2 Environmental Supervisor**

The Environmental Supervisor is responsible for ensuring that field engineering activities are planned and conducted in accordance with the DESC/SWPPP. The Environmental Supervisor manages the DESC/SWPPP program by ensuring that all controls and measures are in place, properly installed, and operable. The Environmental Supervisor maintains an up-to-date copy of the DESC/SWPPP at all times, all site records pertaining to inspections and maintenance, and records detailing the date on which major construction activities began and ended.

#### **2.1.3 Environmental Inspector**

The Environmental Inspector is responsible for conducting regular site environmental inspections; coordinating and directing cleanup activities; monitoring non-storm water discharges such as dewatering excavations; conducting environmental awareness training; and documenting regular inspections of erosion and sediment control devices.

**Table 1. DESC/SWPPP Contacts List**

<b>Title</b>	<b>Contact</b>	<b>Telephone Number</b>
Construction Manager	Bill Watson	727.251.7786
Environmental Supervisor	Rick Goette	702.596.4346
Environmental Inspector(s)	Rick Goette	702.596.4346

## **2.2 Monitoring Program**

### **2.2.1 Inspection and Maintenance**

Details of inspection and maintenance of the construction site are included in Section 7.

### **2.2.2 Sampling and Analysis**

Two objectives of the SWPPP as listed in the Construction General Permit deal with sampling and analysis. The first sampling and analysis strategy is for discharges from construction activity which discharge directly into Clean Water Act 303(d) water bodies. There are no Section 303(d) listed water bodies in the Project area. Further description of the existing hydrology is included in Section 4. The Colorado River located approximately 10 miles southeast of the proposed structures and is not a listed water body for sedimentation. Although Structures 1 through 54 are located in areas that drain toward the Colorado River, there are no dry washes that lead through this very flat topography directly to the river. Any stormwater runoff from these structures would be contained within the immediate vicinity of the construction by the installation and management of temporary BMPs such as silt fencing. Storm water exists on site only briefly, and therefore is not possible to sample. As there will be no direct discharge to any water bodies, sampling and analysis will not be conducted.

The second sampling and analysis strategy is for discharges that have been discovered through visual monitoring to be potentially contaminated by pollutants not visually detectable in the runoff. Most of the Project area is undeveloped. Details of pollutant sources and lack of toxic pollutants are included in Section 4. It is improbable that anything other than sediment would be contained in storm water, therefore, a sampling and analysis strategy to track toxic pollutants will not be conducted.

## **2.3 Retention of Records**

Copies of all reports and records required of all data used to complete the Notice of Intent (NOI) for all construction activities covered under the General Permit will be retained for a period of at least three years from the date generated. This period may be extended by request of the SWRCB and/or RWQCB. Records will be available for submittal upon request by the RWQCB.

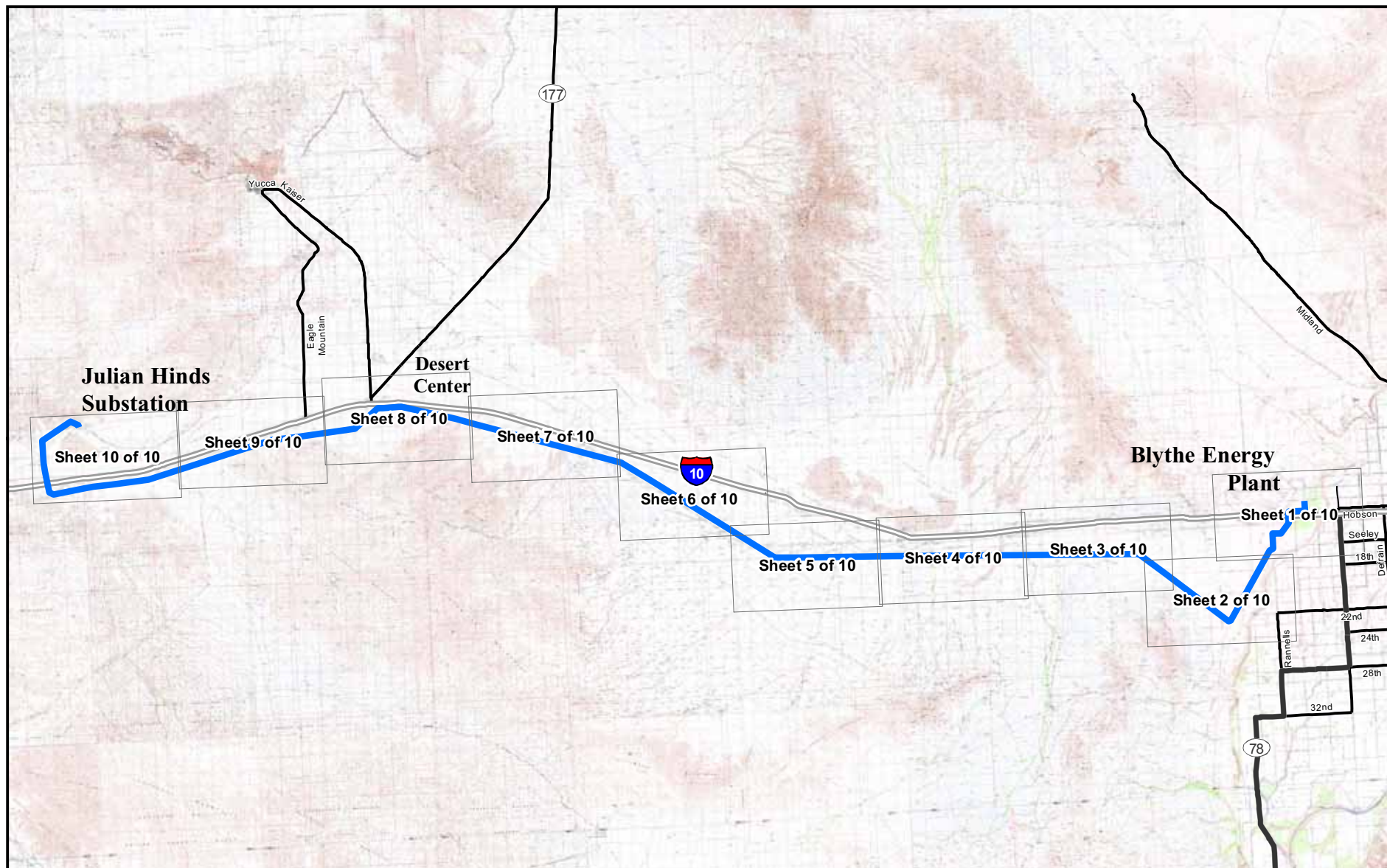
## **3.0 PROJECT DESIGN**

### **3.1 Overview of Proposed Project**

The BEPTL includes the following:

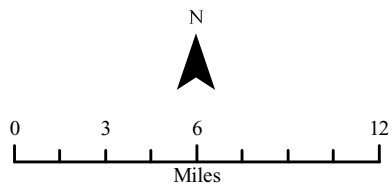
- Interconnection within the BEP Plant.
- Installation of approximately 67.4 miles of new 230-kV transmission line (44.4 miles on BLM lands). The first 6.7 miles will trend south-southwest from the BEP plant to a point near SCE's 500-kV Devers-Palo Verde 1 (D-PV1) transmission line; the remaining 60.7 miles generally follows SCE's existing 500-kV D-PV1 transmission line to the Julian Hinds Substation located approximately 60 miles to the west
- Upgrades to the Julian Hinds Substation.

The proposed new transmission line and other BEPTL features will be located entirely within Riverside County, between the BEP near the city of Blythe and the Julian Hinds Substation. Figure 3 Detailed Alignment Map (Sheets 1-11) illustrates the transmission line, structure locations, pull/splice, and laydown areas. The BEPTL roughly parallels and lies to the south of the I-10 freeway and also parallels and runs immediately to the north of the SCE D-PV1 500-kV steel lattice tower transmission line from structure 11 to structure 404. It also parallels the Imperial Irrigation District (IID) 161-kV H-frame wooden pole transmission line from structures 7 to 21 and from structures 193 to 242 (Figure 3, Sheets 1-11). The two existing transmission lines and a Southern California Gas Company natural gas pipeline ROW, also immediately to the south of I-10, all have existing rough native-surface access roads that will be utilized by construction traffic for the BEPTL.



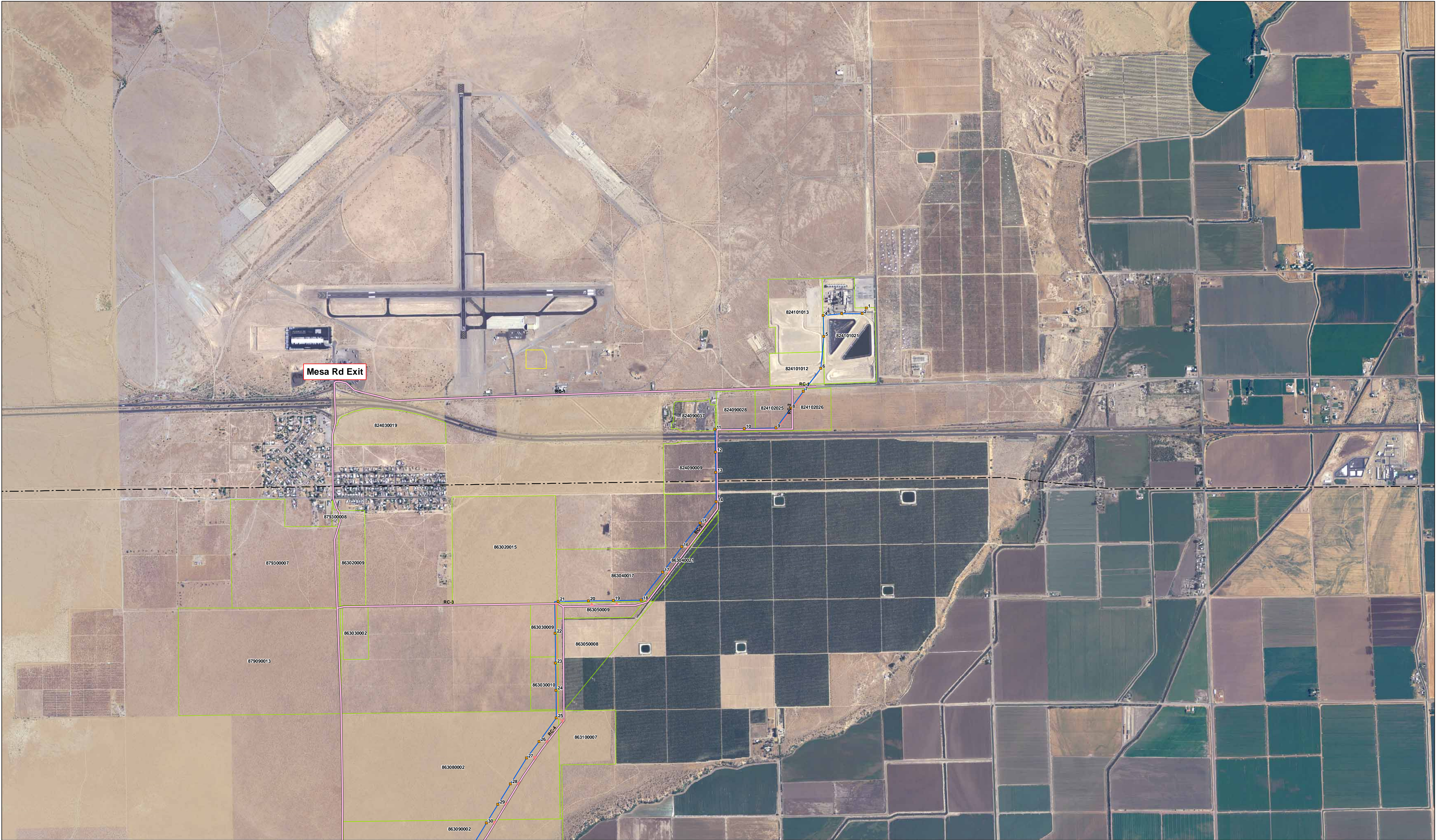
### Legend

- Transmission Line
- Sheet Index



**Transmission Line**  
Blythe Energy, LLC

**Figure 3**  
Detailed Alignment Map  
(Sheet 1 of 11)



**Legend**

Proposed Structures

Transmission Line

Existing Road

Proposed Road

Parcels

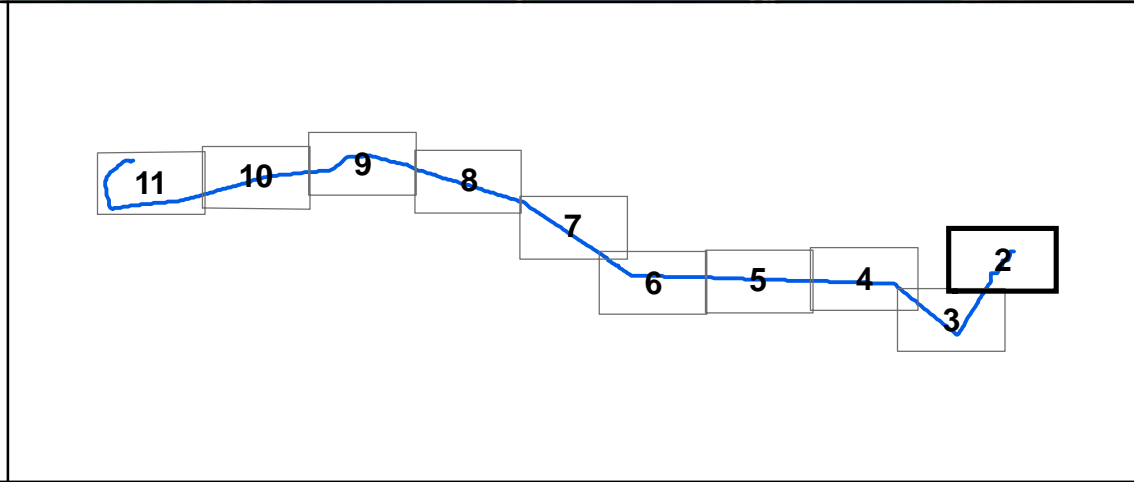
Proposed Laydown Areas

Existing Transmission Line

Pipelines

BLM Ownership

Proposed Laydown Areas



N

1:12,000

0 500 1,000 2,000

Feet

0 0.25 0.5

Miles

Blythe Energy Transmission Line

Blythe Energy, LLC

Figure 3

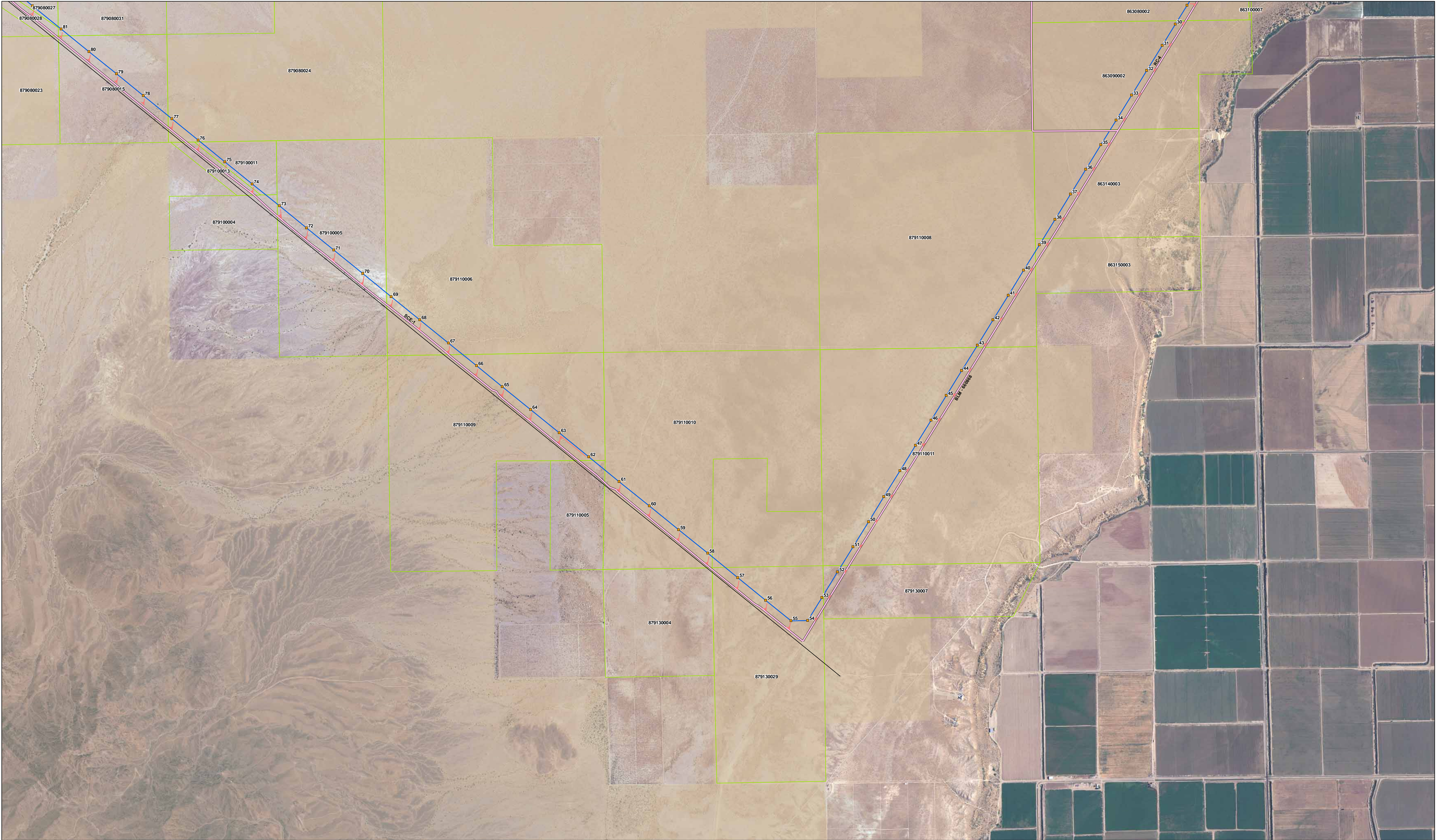
Detailed Alignment Maps

(Sheet 2 of 11)

TETRA TECH

EC, INC.

Revision Date: 01/09/2009



**Legend**

- Proposed Structures
- Transmission Line
- Existing Road
- Proposed Road
- Parcels
- Existing Transmission Line
- Pipelines
- BLM Ownership
- Proposed Laydown Areas

N

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0 500 1,000 2,000

Feet

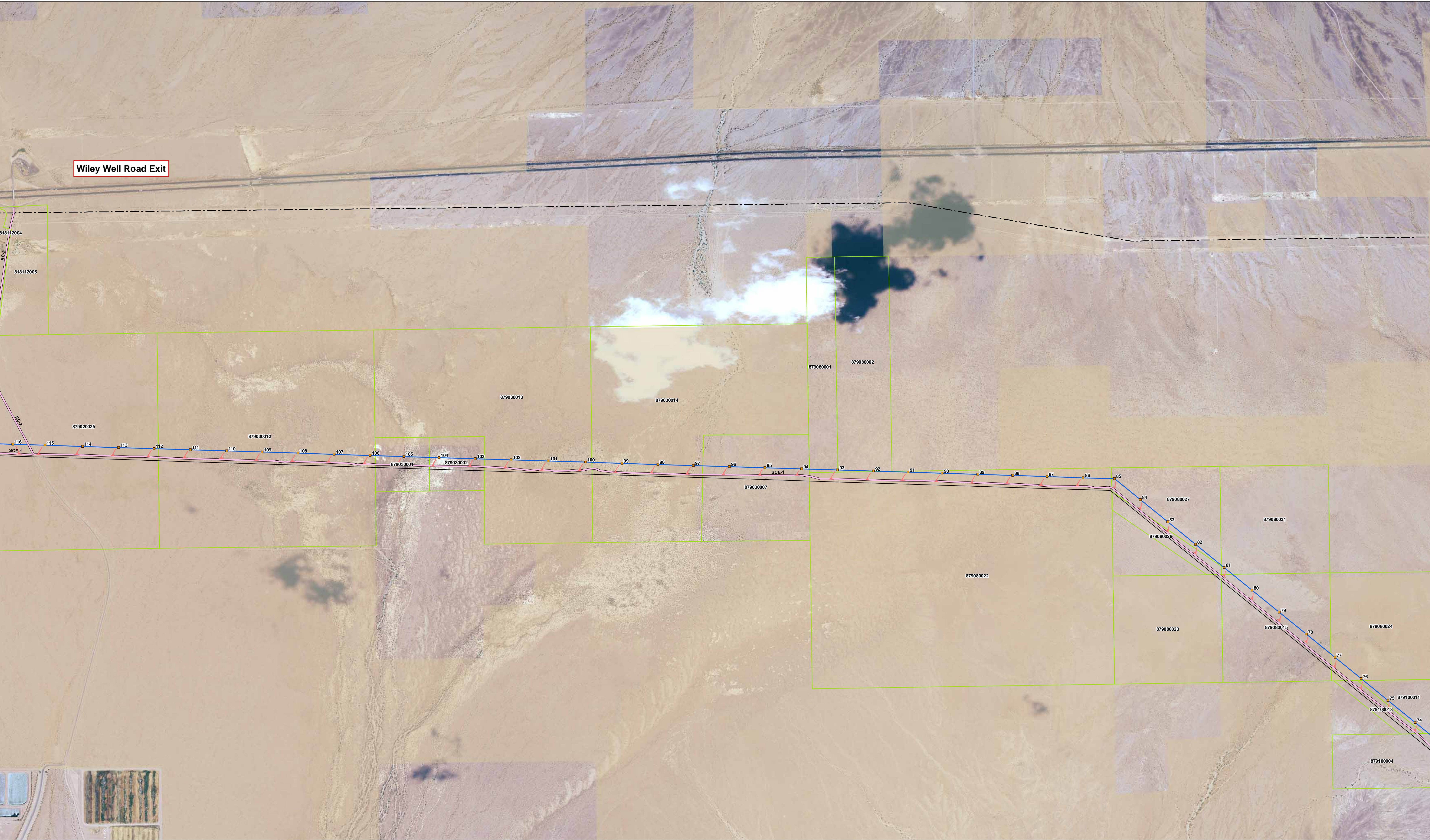
0 0.25 0.5

Miles

**Blythe Energy Transmission Line**  
**Blythe Energy, LLC**  
**Figure 3**  
**Detailed Alignment Maps**  
(Sheet 3 of 11)

**TETRA TECH EC, INC.**

Revision Date: 01/09/2009



**Legend**

Proposed Structures

Transmission Line

Existing Road

Proposed Road

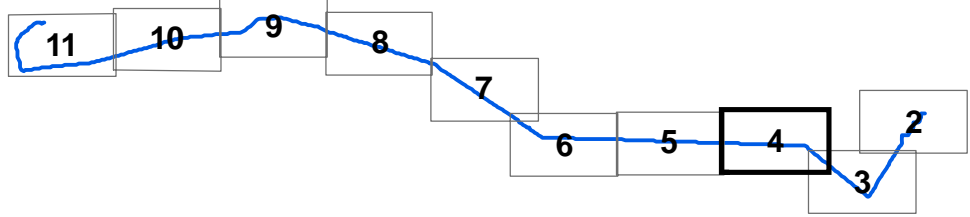
Parcels

Existing Transmission Line

Pipelines

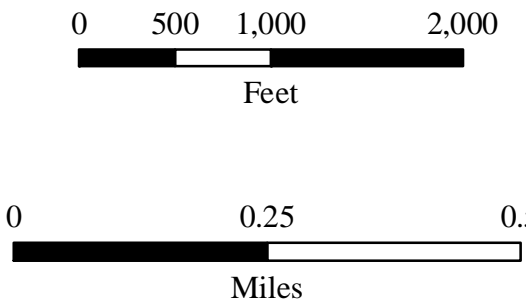
BLM Ownership

Proposed Laydown Areas



N

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Blythe Energy Transmission Line

Blythe Energy, LLC

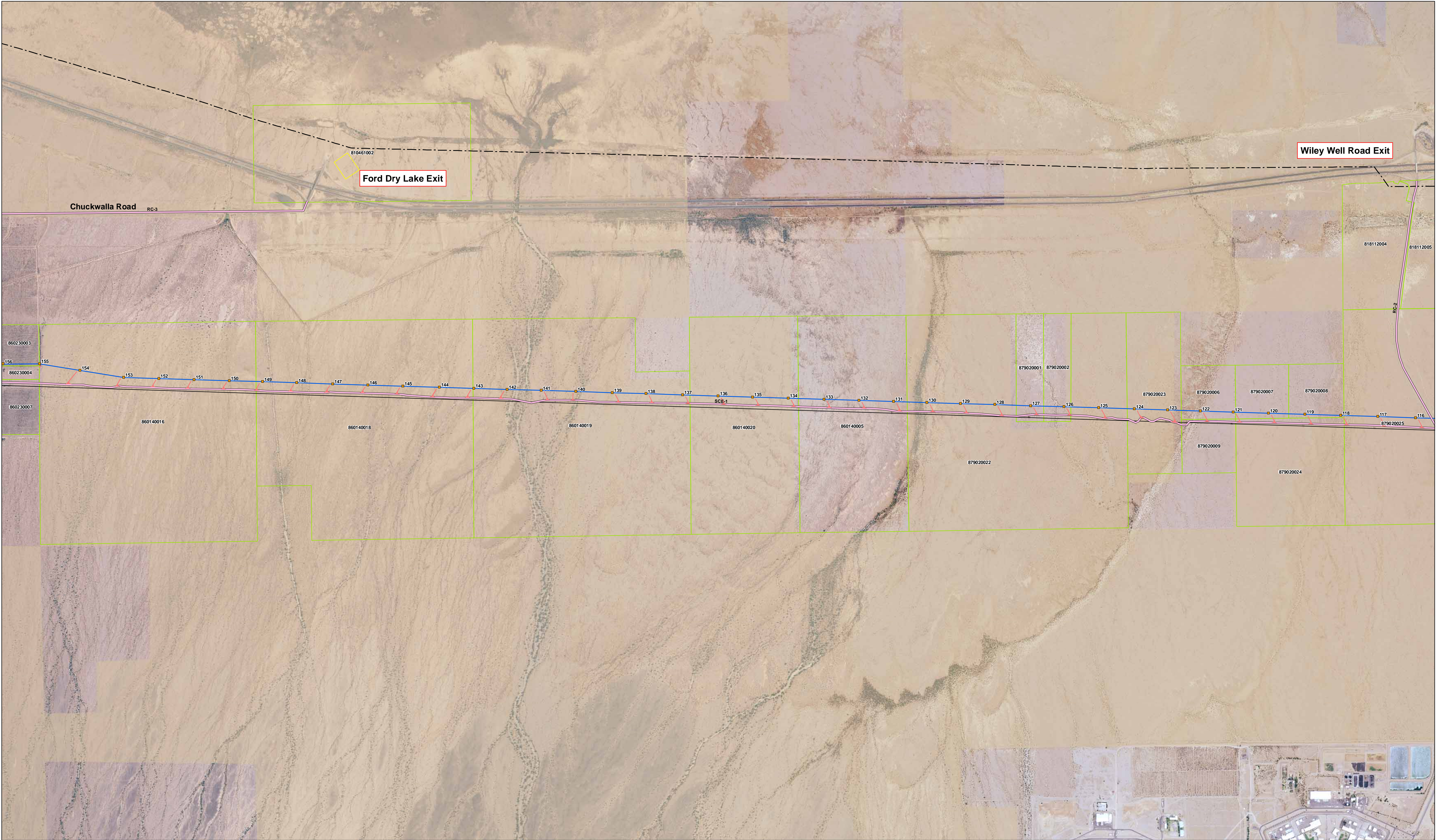
Figure 3

Detailed Alignment Maps

(Sheet 4 of 11)

TETRA TECH EC, INC.

Revision Date: 01/09/2009



**Legend**

Proposed Structures	Existing Road	Existing Transmission Line
Transmission Line	Proposed Road	Pipelines
Parcels	BLM Ownership	Proposed Laydown Areas

N

0 500 1,000 2,000  
Feet

0 0.25 0.5  
Miles

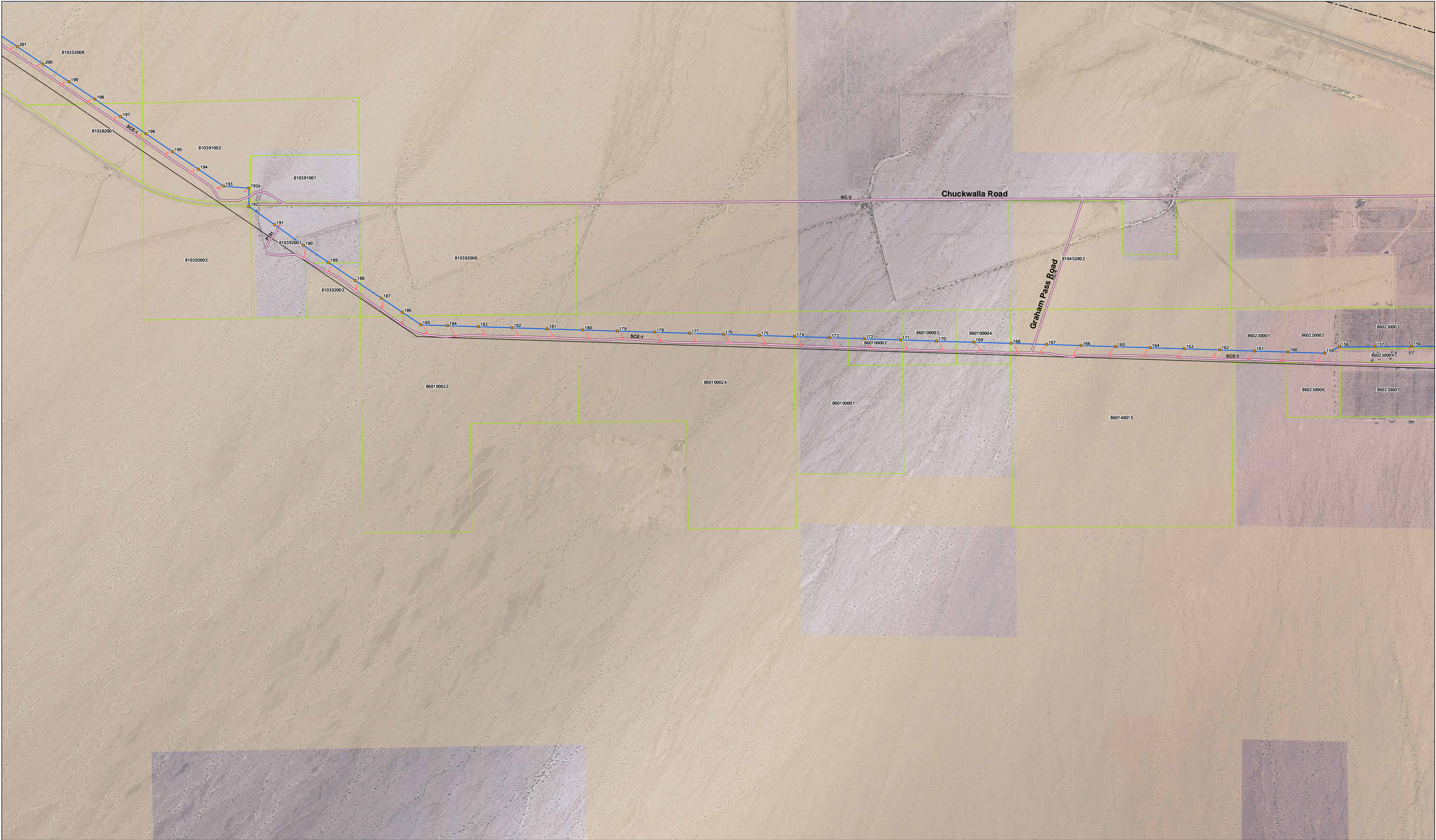
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**Blythe Energy Transmission Line**  
Blythe Energy, LLC

**Figure 3**  
Detailed Alignment Maps  
(Sheet 5 of 11)

**TETRA TECH EC, INC.**

Revision Date: 01/09/2009



**Legend**

Proposed Structures

Transmission Line

Existing Road

Proposed Road

Parcels

Existing Transmission Line

Pipelines

BLM Ownership

Proposed Laydown Areas

N

1:12,000

05001,0002,000

Feet

00.250.5

Miles

**Blythe Energy Transmission Line**  
**Blythe Energy, LLC**

**Figure 3**  
**Detailed Alignment Maps**  
(Sheet 6 of 11)

**TETRA TECH EC, INC.**

Revision Date: 01/09/2009



**Legend**

Proposed Structures	Existing Road	Existing Transmission Line
Transmission Line	Proposed Road	Pipelines
Parcels	BLM Ownership	Proposed Laydown Areas

N

0 500 1,000 2,000  
Feet

0 0.25 0.5  
Miles

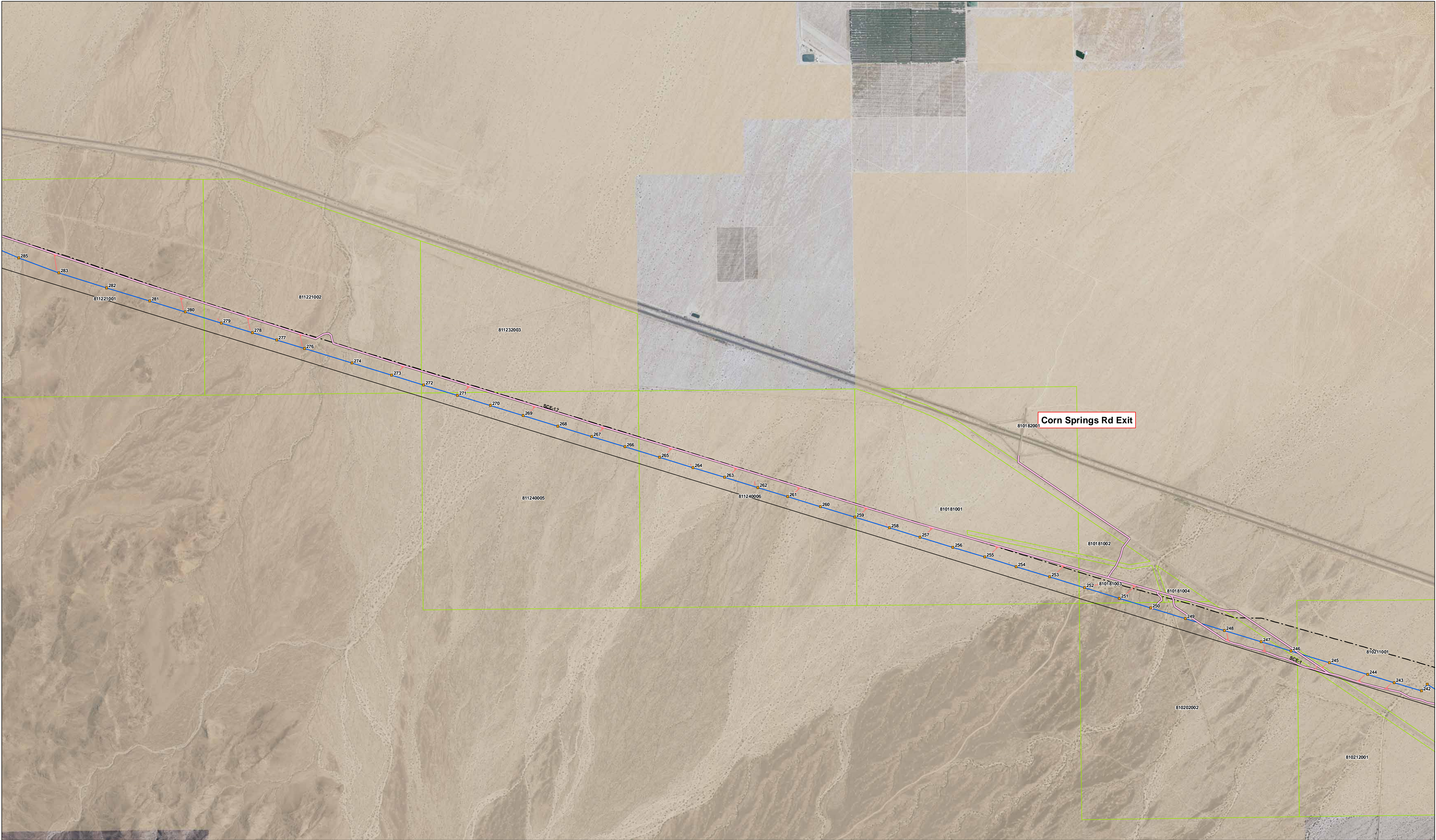
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**Blythe Energy Transmission Line**  
Blythe Energy, LLC

**Figure 3**  
Detailed Alignment Maps  
(Sheet 7 of 11)

**TETRA TECH EC, INC.**

Revision Date: 01/09/2009



**Legend**

Proposed Structures

Transmission Line

Existing Road

Proposed Road

Parcels

Existing Transmission Line

Pipelines

BLM Ownership

Proposed Laydown Areas

N

1:12,000

0 500 1,000 2,000

Feet

0 0.25 0.5

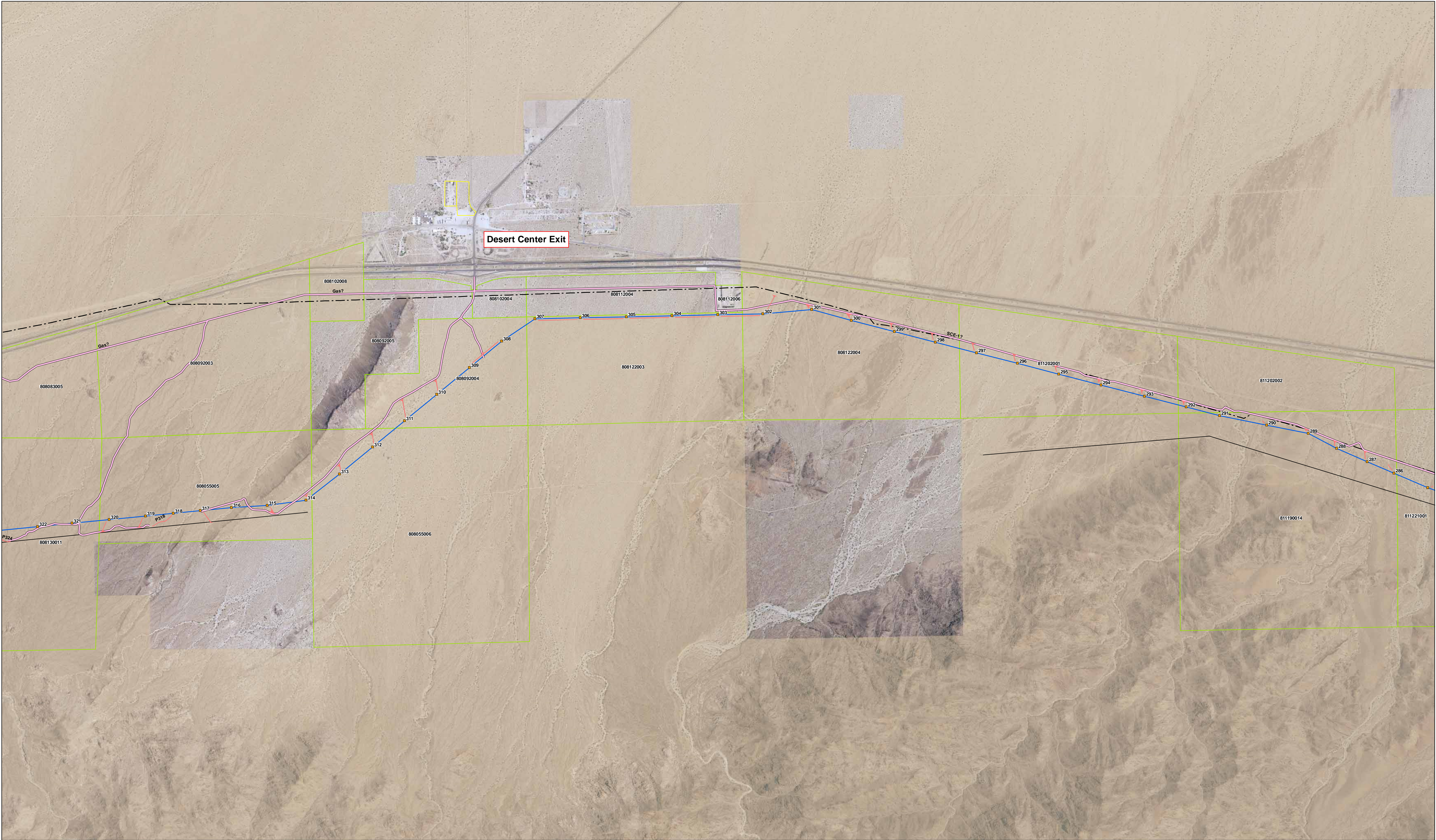
Miles

**Blythe Energy Transmission Line**  
**Blythe Energy, LLC**

**Figure 3**  
**Detailed Alignment Maps**  
(Sheet 8 of 11)

**TETRA TECH EC, INC.**

Revision Date: 01/09/2009



**Legend**

Proposed Structures	Existing Road	Existing Transmission Line
Transmission Line	Proposed Road	Pipelines
Parcels	BLM Ownership	Proposed Laydown Areas

N

0 500 1,000 2,000 Feet

0 0.25 0.5 Miles

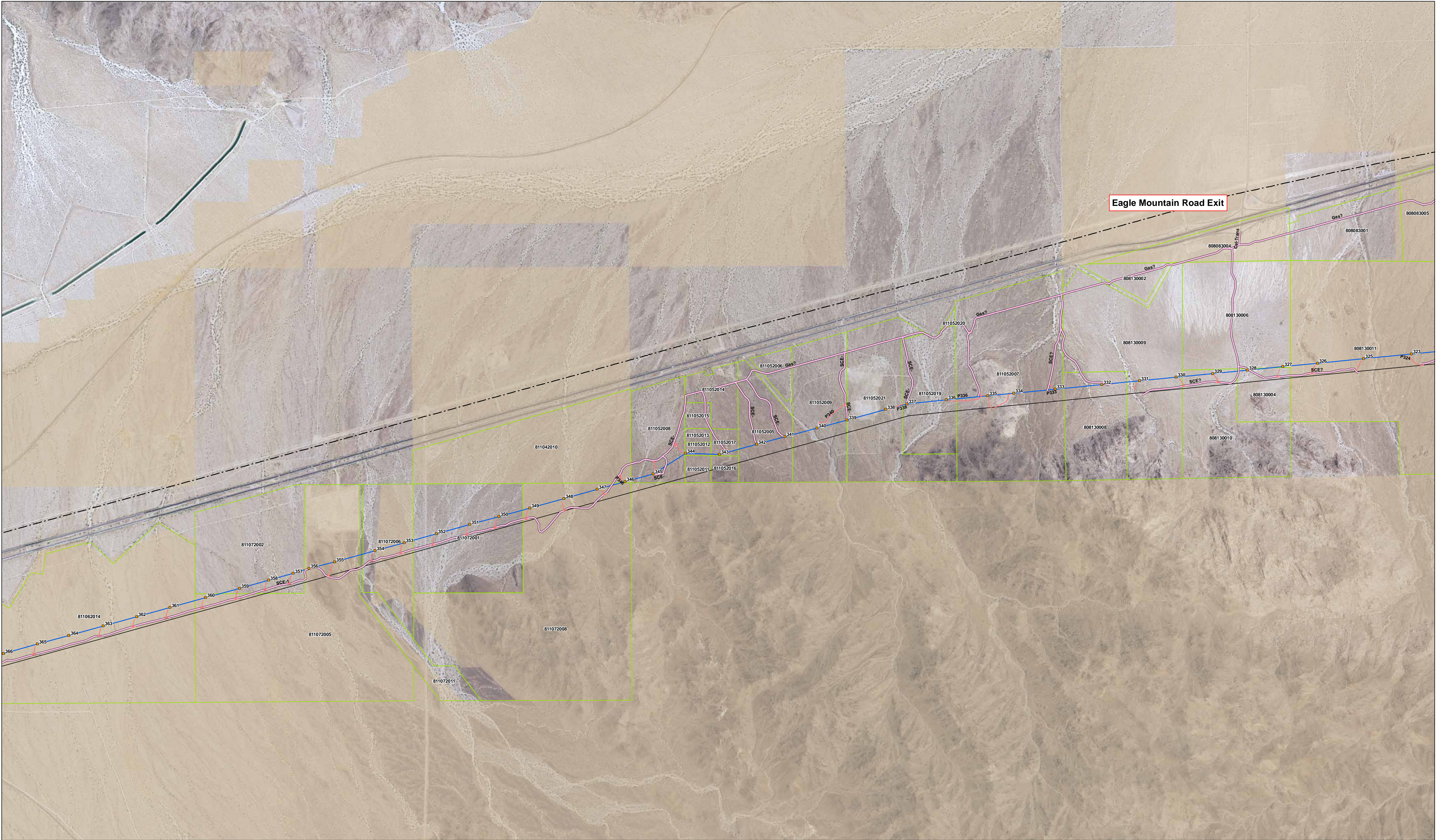
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**Blythe Energy Transmission Line**  
Blythe Energy, LLC

**Figure 3**  
Detailed Alignment Maps  
(Sheet 9 of 11)

**TETRA TECH EC, INC.**

Revision Date: 01/09/2009



**Legend**

Proposed Structures

Transmission Line

Existing Road

Proposed Road

Parcels

Existing Transmission Line

Pipelines

BLM Ownership

Proposed Laydown Areas

N

1:12,000

05001,0002,000

0

500

1,000

2,000

Feet

0

0.25

0.5

Miles

**Blythe Energy Transmission Line**

**Blythe Energy, LLC**

**Figure 3**

**Detailed Alignment Maps**

(Sheet 10 of 11)

**TETRA TECH EC, INC.**

Revision Date: 01/09/2009



**Legend**

Proposed Structures

Transmission Line

Existing Road

Proposed Road

Parcels

Existing Transmission Line

Pipelines

BLM Ownership

Proposed Laydown Areas

N

1:12,000

0 500 1,000 2,000 Feet

0 0.25 0.5 Miles

11 10 9 8 7 6 5 4 3 2

**Blythe Energy Transmission Line**  
Blythe Energy, LLC

**Figure 3**  
Detailed Alignment Maps  
(Sheet 11 of 11)

TETRA TECH EC, INC.

Revision Date: 01/09/2009

### 3.2 General Design Features and Disturbance Area

Table 2 summarizes the design features and Table 3 summarizes the potential disturbance area of the proposed new transmission lines and related facilities. Design features and estimated disturbance areas are based on discussions and design data originally provided by SCE. Estimates for construction disturbances were derived from field surveys of all routes to locate structures and roads to be crossed, examination of air photographs, and estimates of disturbance areas needed for each construction activity. The estimated maximum land disturbance acreage associated with the proposed BEPTL features is shown in Table 3. The estimated acreage from the November DESCP/SWPPP was revised to include additional laydown areas. However, it is now assumed that the access road upgrades are now part of Edison's ROW maintenance, and therefore not included in the land disturbance acreage of the BEPTL. Every effort will be made to limit disturbance to the minimum amount necessary to implement a particular construction activity. Details are provided in the sections that follow. All work associated with modifications to the existing BEP facility would occur within a previously disturbed area, and therefore involve no new ground disturbance.

**Table 2. Summary of Design Features**

<p><b>Alignment Design and ROW</b></p> <ul style="list-style-type: none"><li>• Transmission Line Length: approximately 67.4 miles (44.4 miles on BLM lands).</li><li>• ROW Width: approximately 95 feet. The ROW width will be reduced in specific locations to mitigate potential impacts to resources (e.g., historic trails, adjacent land restrictions, existing roads and highways, and biological and cultural resources).</li></ul> <p><b>Design of Transmission Line Facilities (230 kV)</b></p> <ul style="list-style-type: none"><li>• Conductors: 3-phase AC circuit consisting of two 1.5 to 2-inch ACSR conductors per phase.</li><li>• Minimum Conductor Distance from Ground: 30 feet at 60°F and 27 feet at the maximum operating temperature.</li><li>• Transmission Line Structure Types:<ul style="list-style-type: none"><li>– Single-pole concrete or steel structures along entire route, except in select locations where H-frame steel structures may be needed.</li><li>– Structure Heights (approximate): Single Pole – 85 to 130 feet, except at certain locations where poles could be up to 165 feet tall.</li></ul></li><li>• Average Distance Between Single Pole Structures – 820 feet*.</li><li>• Total Number of Structures: 435.</li></ul> <p><b>Termination Point</b></p> <ul style="list-style-type: none"><li>• Julian Hinds Substation (owned by the Metropolitan Water District, operated by SCE)</li></ul>
---

\*The exact quantity and placement of the structures will depend on the final detailed design of the transmission line, which is influenced by the terrain, land use, and economics. Alignment options may also slightly increase or decrease the quantity, location, and height of structures.

**Table 3 Estimated Land Disturbance, Revised January 2009**

Project Feature	Quantity or Length	Area Assumptions	Acres Disturbed During Construction	Area Assumptions	Acres Disturbed During Construction	Difference	Rationale/ Comment
		November 2008		January 2009			
Crossing Structures (street and utility crossings )	14	95' x 100'	3.05	95' x 100'	3.05	0	
Crane Pad, Spur Road & Radius Combined (structures #1-57)	57	25x25	0.82	25x25	0.82	0	
Structure Pad Construction Area (structures #1-435)	435	50' x 50'	25.14	50' x 50'	25.14	0	
Crane Pad for Erection (qty structures)	381	23'x165'	33.19	23'x165'	33.19	0	
Truck Turning Radius (qty structure sites)	390	0.1 Acre	39.00	0.1 Acre	39.00	0	
Pull Sites (qty sites)	36	50' x 140'	5.79	50' x 140'	5.79	0	
Splice Sites (qty sites)	23	95' x 200'	10.03	95' x 200'	10.03	0	
New Access Roads (length in feet)	3550	x 14' wide	1.14	x 12' wide	1.14	0	
Access Road Improvement (length in miles MP 3.5-7.0)	3.5	x 2' widening	0.85	x 0' widening	0	-0.85	Edison completing grading of access roads
Access Road Improvement (length in miles MP 7.0-67.4)	63.9	Ave 4' widening	30.98	Ave 0' widening	0	-30.98	Edison completing grading of access roads
Spur Roads (qty sites)	435	Ave 173' x 12' wide	18.16	Ave 173' x 12' wide	20.7	2.54	Additional road work
Construction Laydown Near I-10 Exits	2	5 + 5 acres	10	1.82 +5.56 acres	7.38	-2.62	Surveyed sizes
Blythe Airport Laydown	1			10.0 acres	10.0	10	New laydown yard
Desert Center Laydown	1			8.64 acres	8.64	8.64	Expanded laydown yard
Julian Hinds Substation Laydown		150' x 150'	0.50	150' x 150'	0.50	0	
Julian Hinds Substation Expansion	1	75' x 244'	0.4	75' x 244'	0.4	0	
<b>Total</b>			<b>179.05</b>		<b>165.78</b>	<b>-13.27</b>	

### **3.3 Transmission Structures**

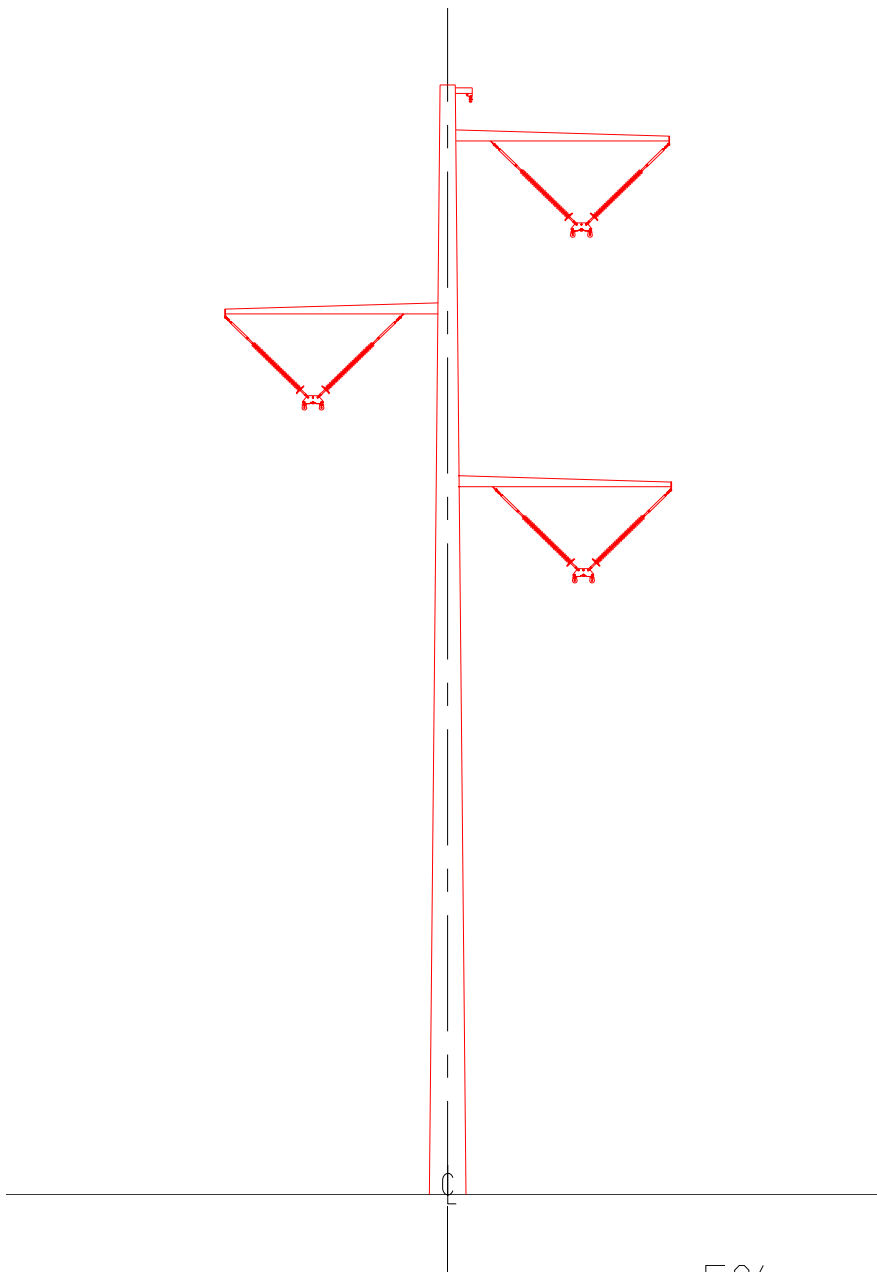
A single-column concrete or steel pole structure will be used in most cases, with exceptions being H-frame steel structures needed for specific terrain conditions. Figure 4 illustrates a typical single-circuit, 230-kV, single-pole structure. Structure heights will generally be from 75 to 125 feet above the ground surface depending on terrain and associated span lengths. Based on the preliminary design, structures will be located as illustrated in Figure 3 (Sheets 1-11).

### **3.4 Proposed Julian Hinds Substation Expansion**

The proposed Julian Hinds Substation expansion development will be 75 feet by 224 feet. The area was graded when the substation was originally constructed and no additional grading will be required. For the short construction period, Blythe Energy will recommend that BMPs will consist of silt fencing placed along the east and south sides of the expansion area and the southern boundary of the construction laydown area. Permanent BMPs will consist of a gravel surface, similar to that used at the existing substation. The Metropolitan Water District owns the Julian Hines Substation property, and SCE owns and operates the substation. Upgrades to the substation will be conducted by SCE and will be under the supervision and control of the California Public Utilities Commission. Blythe Energy has no control over the activities of either entity during or after construction. Blythe Energy will not use any laydown area at the substation, as originally planned. Instead, other laydown areas will be used.

**Figure 4. Schematic Profile of BEPTL Typical Structure**

BUCK BLVD-JULIAN HINES 220 KV  
(PROPOSED)



### **3.5 Modifications to the BEP**

In order to facilitate connection of the transmission line to the BEP, the Buck Substation must be converted from its current 161 kV operating voltage to 230 kV. Scheduled plant outages will be required to perform this work, during which time back up power required to maintain lights and electrical services will be supplied via backfeed from the existing grids. As a secondary form of back up power during the second of two outages, when backfeed is unavailable or fails, a portable generator will be used. Additionally, because the conversion involves changing connections internal to the transformer, transformer insulating fluid must be temporarily removed from the transformers. This will be accomplished by transferring the insulating fluid to on-site tankers (up to three tankers per transformer), which will be driven away while the electrical conversion is made. Following conversion, the transformers will be vacuum-treated and the tanker trucks will return to the site to refill the transformers with the insulating fluid.

### **3.6 Construction of Proposed Project**

This section provides an overview and some details concerning procedures to be followed during construction of the BEPTL.

Constructing a transmission line includes the following activities:

- Preparation of staging/laydown areas
- Access road and spur road construction/improvement
- Clearing and grading of structure sites
- Foundation preparation and installation of structures
- Conductor installation
- Cleanup and site reclamation

In general, construction of the transmission line will be accomplished systematically moving from structure to structure, restoring the original grade immediately upon structure installation. The construction of the entire project is expected to last one year; however, installation of each structure will only be one day, with perhaps an additional day or two for access road grading or improvements of existing access roads. Therefore, it is expected that one to three days will be spent in any one area installing a structure and creating or improving access roads and then moving on down the line. The topography of the area is relatively flat (i.e., less than 5 percent grade) along the transmission line ROW. Road improvements or new access roads will not need mass grading due to the flat topography of the area. Once each structure is installed, only 16 to 50 square feet will be impervious surface which is the area of the structure. Various construction activities will occur during the construction process with several construction crews operating simultaneously at different locations. The following subsections describe in more detail the construction activities associated with the proposed new transmission line.

### **3.6.1 Preparation of Staging/Laydown Areas**

Construction staging/laydown and parking areas are proposed for 4 locations situated within the Blythe airport, at Desert Center, and at I-10 exits for Hayfield Road and Ford Dry Lake (see Figure 3; Sheets 1-11 and details for each laydown area in Figures 5 through 8).

Construction materials such as concrete, wire and cable, fuels, structures, and small tools and consumables will be delivered to the staging/laydown areas by truck. Mobile trailers or similar suitable facilities (for example, modular offices) will be used for construction offices to be located at specific staging/laydown sites.

The laydown area at Blythe airport is 10 acres. It is located on the south east side of the airport (see Figure 5). A security fence, installed by the contractor, will surround the laydown area. Attached to this fence will be a desert tortoise exclusion fence as detailed in Figure 10. Silt fencing will be installed as detailed in Figure 9. Silt fence locations vary for each

# BLYTHE AIRPORT



## LEGEND:

- LAYDOWN BOUNDARY
- - - - - SILT FENCE
- · - · - SECURITY / TORTOISE FENCE

0 100 200 400  
FEET



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Blythe Energy, LLC

Figure 5: Blythe Airport Laydown Area Security, Silt,  
And Desert Tortoise Exclusion Fence Layouts

P:\FPL ENERGY - WIND PROJECTS\CALIFORNIA\BLYTHE T-LINE\EROSION  
CONTROL DRAWINGS\DWG\632030E\_BLYTHE AIRPORT EXPD LAYDOWN  
AREA\_DEC22\_2008.DWG



**LEGEND:**

- LAYDOWN BOUNDARY
- - - - - SILT FENCE
- SECURITY / TORTOISE FENCE

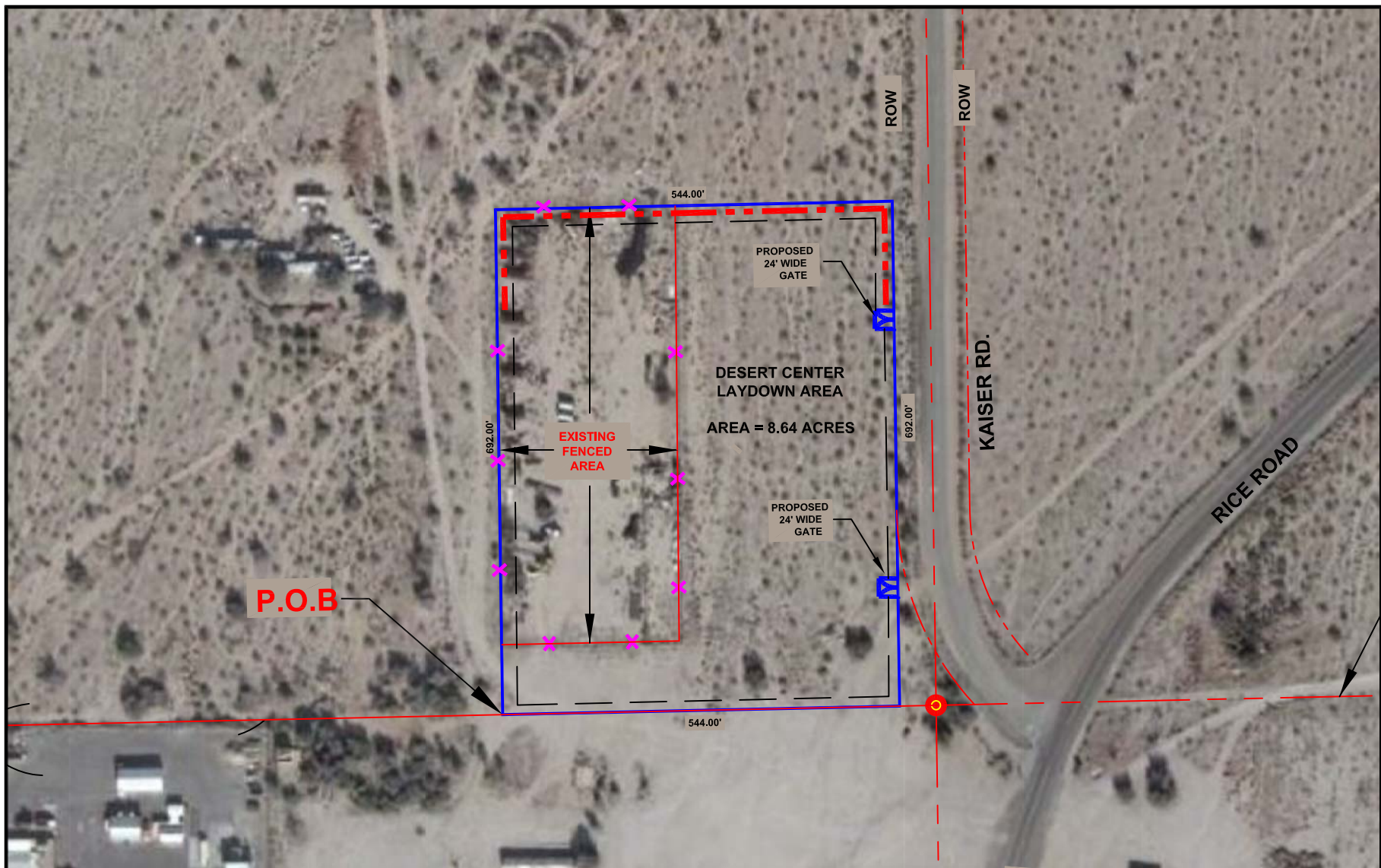
0 100 200 400  
FEET



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Proposed Transmission Line Modifications  
Blythe Energy, LLC

Figure 6: Ford Dry Lake Laydown Area Security, Silt,  
And Desert Tortoise Exclusion Fence Layouts



**LEGEND:**

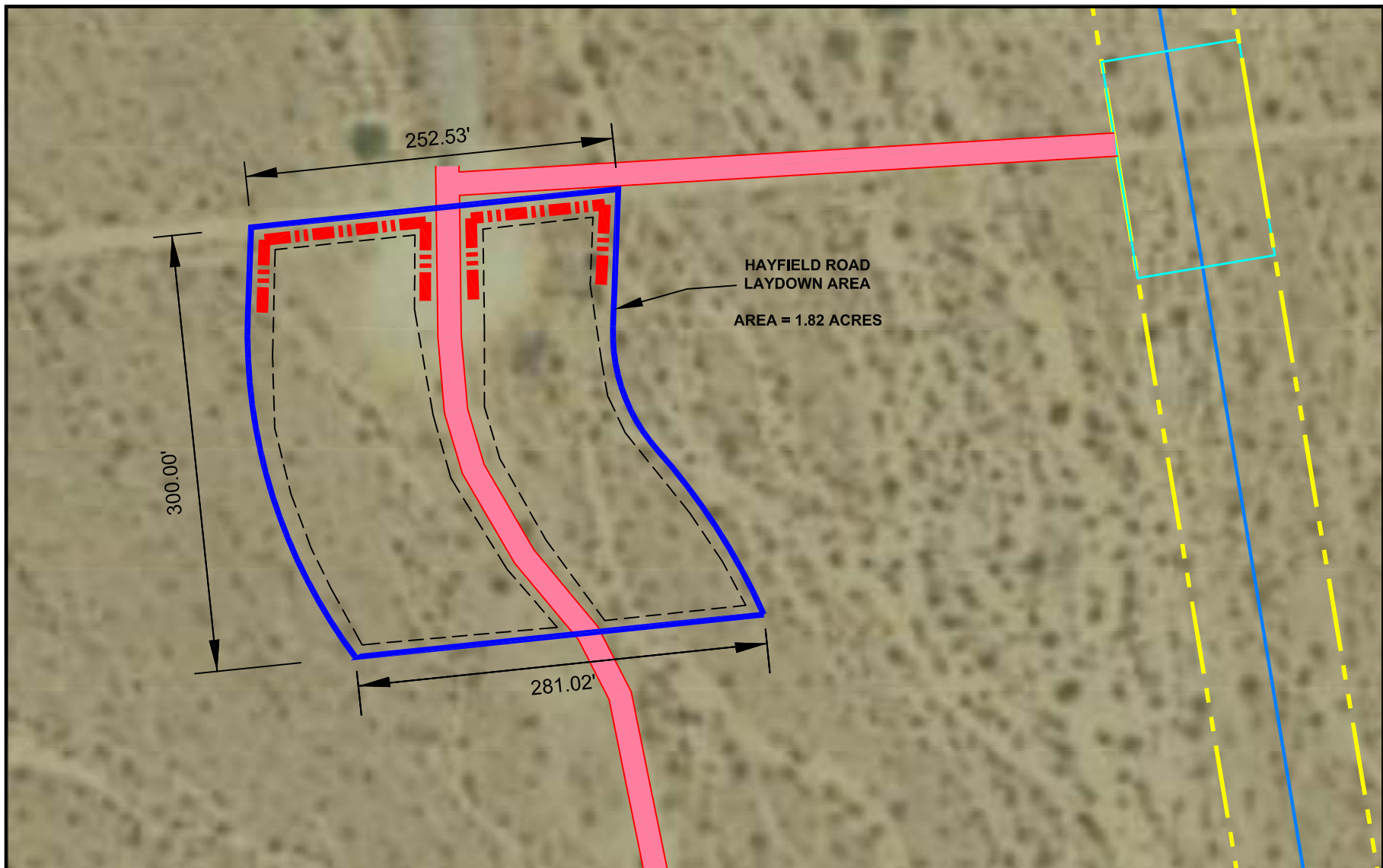
- LAYDOWN BOUNDARY
- - - - - SILT FENCE
- SECURITY / TORTOISE FENCE



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Proposed Transmission Line Modifications  
Blythe Energy, LLC

Figure 7: Desert Center Laydown Area Security, Silt,  
And Desert Tortoise Exclusion Fence Layouts



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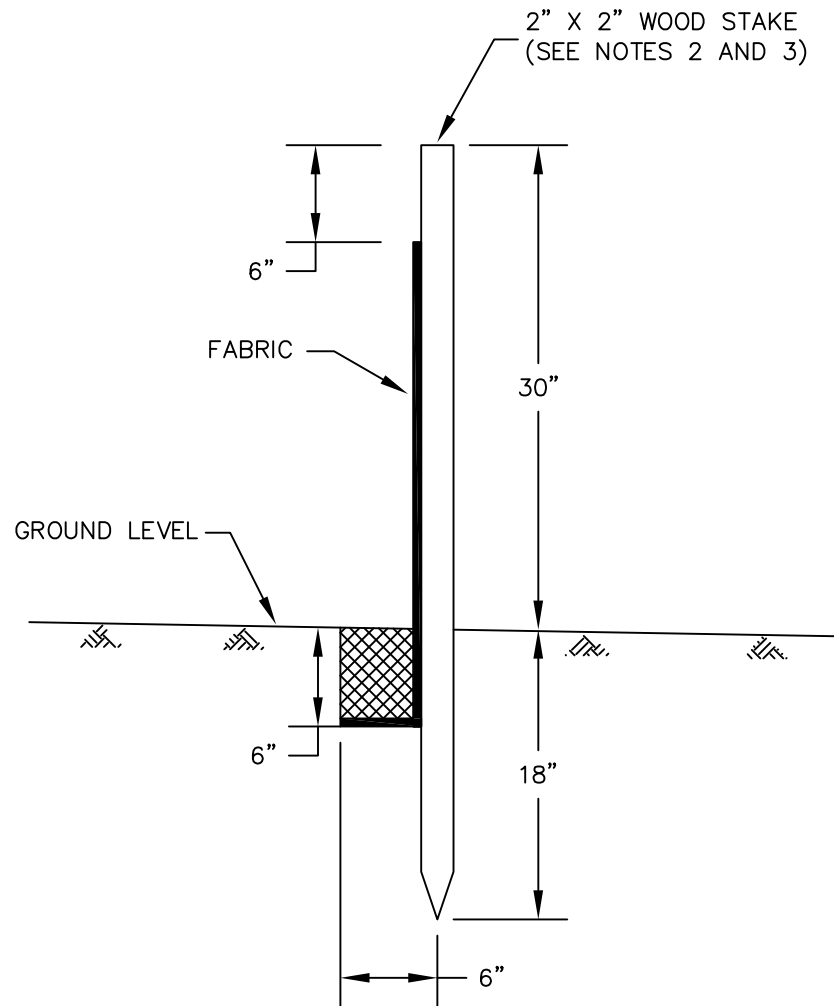
- LAYDOWN BOUNDARY
- - - - SILT FENCE
- - - - SECURITY / TORTOISE FENCE



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Proposed Transmission Line Modifications  
Blythe Energy, LLC

Figure 8: Hayfield Exit Laydown Area Security, Silt,  
And Desert Tortoise Exclusion Fence Layouts



NOTES:

1. STAKE DIMENSIONS ARE NOMINAL.
2. STAKES SHALL BE SPACED AT 8'-0" MAXIMUM AND SHALL BE POSITIONED ON DOWNSTREAM SIDE OF FENCE.
3. WHEN ADDING NEW SECTION OF SILT FENCE, STAKES TO OVERLAP AND FENCE FABRIC TO FOLD AROUND EACH STAKE ONE FULL TURN. SECURE FABRIC TO STAKE WITH 4 STAPLES.
4. WHEN ADDING NEW SECTION OF SILT FENCE, STAKES SHALL BE DRIVEN TIGHTLY TOGETHER TO PREVENT POTENTIAL FLOW-THROUGH OF SEDIMENT AT JOINT. THE TOPS OF THE STAKES SHALL BE SECURED WITH WIRE.
5. FOR END STAKES, FENCE FABRIC SHALL BE FOLDED AROUND TWO STAKES ONE FULL TURN AND SECURED WITH 4 STAPLES.

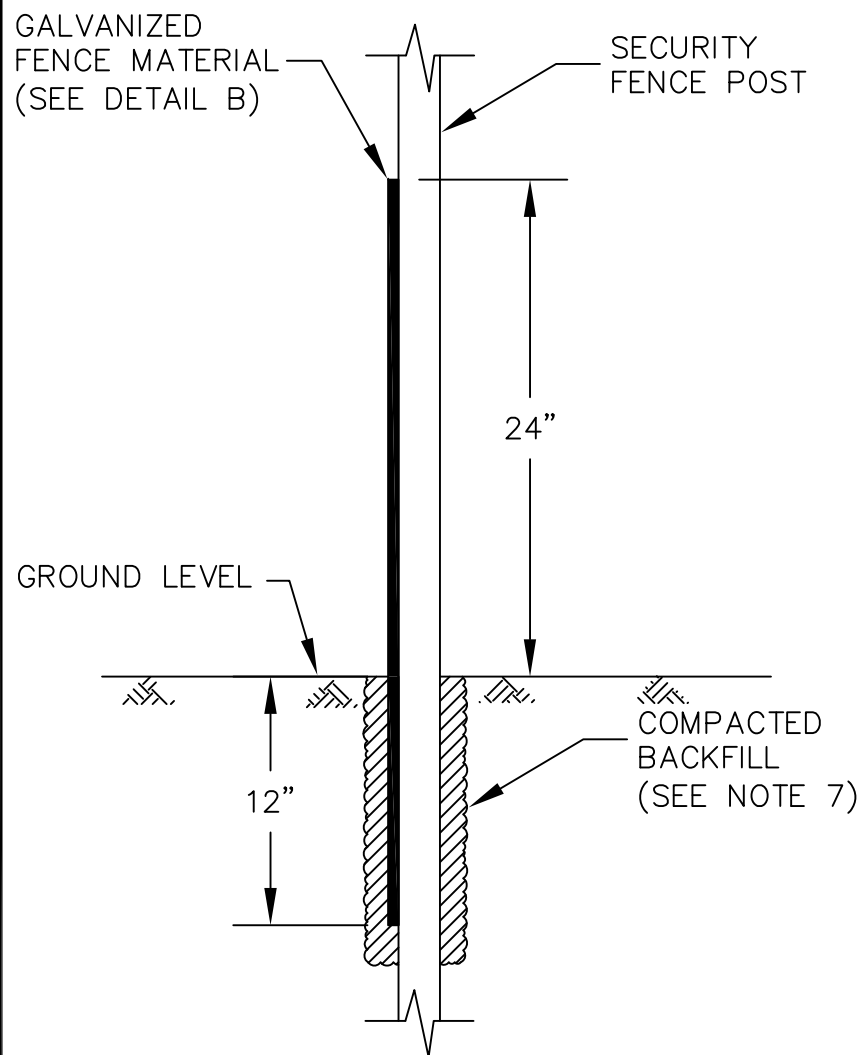
REFERENCE: CALIFORNIA STORMWATER BMP HANDBOOK,  
CABMPHANDBOOKS.COM



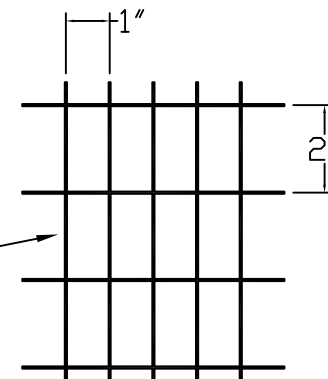
TETRA TECH EC, INC.

Proposed Transmission Line Modifications  
Blythe Energy, LLC

Figure 9: Silt Fence Installation Detail



GALVANIZED  
FENCE MATERIAL  
(16 GA. MINIMUM)



NOTES:

1. ENSURE THAT FENCE POSTS AND MATERIALS CONFORM TO THE STANDARDS APPROVED BY THE U.S. FISH AND WILDLIFE SERVICE.
2. ENSURE THAT THE HEIGHT ABOVE GROUND LEVEL IS BETWEEN 18 INCHES AND 24 INCHES.
3. ENSURE THAT THE DEPTH OF FENCE MATERIAL BELOW GROUND LEVEL IS ABOUT 12 INCHES BUT NO LESS THAN 6 INCHES.
4. INSTALL ADDITIONAL STEEL POSTS WHEN SPAN BETWEEN EXISTING FENCE POSTS EXCEEDS 10 FEET.
5. ATTACH FENCE MATERIAL TO SECURITY FENCE USING HOG RINGS AT 12-INCH INTERVALS.
6. FASTEN FENCE MATERIAL TO POSTS WITH 3 TIE WIRES (TOP, CENTER, AND BOTTOM).
7. BACKFILL TRENCHES WITH EXCAVATED MATERIAL AND COMPACT.
8. ATTACH FENCE MATERIAL TO ALL GATES. ENSURE THAT CLEARANCE AT BASE OF GATE IS AS CLOSE TO ZERO AS POSSIBLE.

REFERENCE:

[http://www.fws.gov/southwest/es/arizona/Documents/SpeciesDocs/DesertTortoise/Fence\\_Diagram.pdf](http://www.fws.gov/southwest/es/arizona/Documents/SpeciesDocs/DesertTortoise/Fence_Diagram.pdf)



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Figure 10: Desert Tortoise Exclusion Fence  
Detail

laydown area depending on overland flow direction and are shown for each laydown area on Figures 5-8.

The laydown area north of I-10 at the Ford Dry Lake exit is 5.6 acres (see Figure 6). Fencing details are the same as the Blythe airport laydown area except for silt fence location which is shown in Figure 6.

The laydown area at Desert Center is 8.6 acres and is located adjacent to Kaiser Road (See Figure 7). Fencing details are the same as the Blythe airport laydown area except for silt fence location which is shown in Figure 7.

The laydown area south of I-10 at the Hayfield Road exit is 1.8 acres (see Figure 8). Fencing details are the same as the Blythe airport laydown area except for silt fence location which is shown in Figure 8.

### **3.6.2 Access and Spur Road Construction/Improvement**

The construction, operation, and maintenance of the proposed transmission line will require that heavy vehicles access structure sites along the ROW. To the greatest extent possible, existing maintenance roads within existing utility ROW will be used to minimize potential impacts associated with new access road construction. The existing access roads are associated with the IID 161-kV Blythe-Niland transmission line, the SCE D-PV1 transmission line, and a gas transmission line access road near Desert Center. Road improvements will be made to allow passage of construction vehicles, including trucks transporting the structures, installation cranes, concrete trucks, and other heavy equipment as needed. Details on the new access roads are included in the Access Road Plan (Tetra Tech 2008).

New spur roads, typically 12 feet wide and averaging 190 feet long, will be constructed from the access roads to the structure sites. Each spur road will lead to a construction pad for a pole structure. The construction pad will be leveled to facilitate the safe operation of equipment, such as construction cranes. At each structure site, a work area will be required for the structure footing location, structure assembly, and the necessary crane maneuvers. The work area will be cleared of vegetation only to the extent necessary.

Existing paved and unpaved roads provide access to the proposed 67.4-mile route. For new access or spur roads, no culverts or other drainage structures will be installed across drainages. Geotextiles may be used in addition to water as a temporary measure to stabilize very sandy areas to allow heavy equipment access to the structure sites. The area receiving permanent disturbance for new access and spur roads is detailed in Table 3. Road construction or maintenance will include dust and erosion control measures in sensitive areas. All new access roads will be constructed in accordance with BLM and county requirements. Private landowners along the proposed roads will be notified before construction begins.

Blythe Energy has prepared a specific Access Road Use Plan (Tetra Tech 2008) and has supplied this plan to the BLM for review for consistency with the requirements of the ROW grant. BLM approval of this plan is included in Appendix B. Specific editions of the Access Road Plan have been submitted to SCE, IID, and Southern California Gas Company that address each area specifically to support Blythe's request for permission to utilize the existing access roads for which each company is responsible. It may be provided to other agencies with road use permitting authority, such as the City of Blythe and the County of Riverside, for review and approval. The Access Road Use Plan addresses use of the existing road network to transport workers, materials, and heavy equipment to the staging areas, structure locations, and material storage locations. The planned use of existing roads is evaluated to determine the best approach to mitigate potential impacts to the roads and adjacent construction areas. Road improvements needed will be reviewed and addressed on a site-by-site basis. Construction activities will not commence until the BLM and the other entities with prior easement rights approve the Access Road Use Plan.

### **3.6.3 Work Area and Foundation Preparation and Installation of Structures**

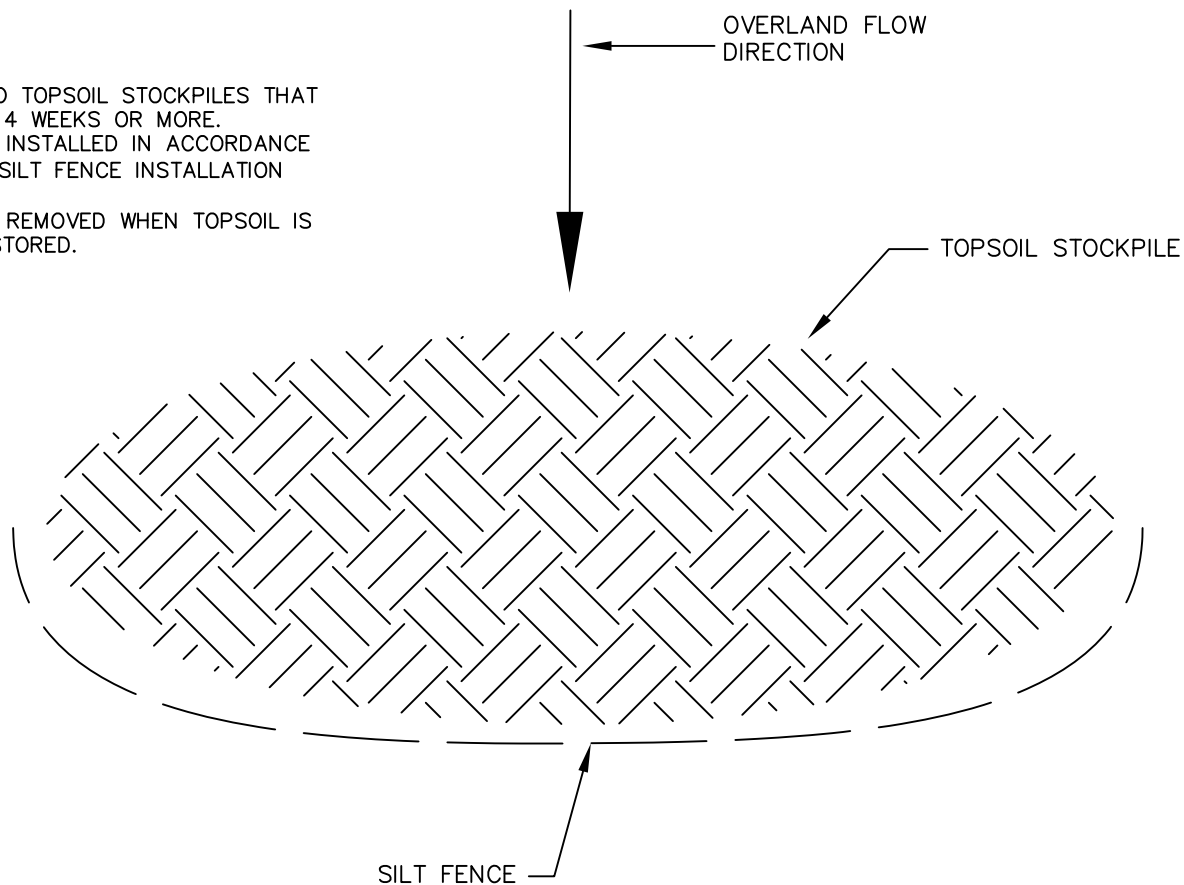
A 95 ft wide by 150 ft long work area has been designated for each structure. All disturbance is to take place within this footprint. Prior to installing the structures, each work area will be stripped of topsoil (4 to 6 inches) and this soil will be stockpiled at the perimeter of the work area. If the topsoil is to remain in place for more than four weeks, then a silt fence will be placed along the downstream side(s) of the stockpiles to mitigate against erosion and siltation from occurring (See Figure 11). This precaution of installing a silt fence will not be required if the topsoil stockpiles are removed and the site restored within a period of four weeks or less.

The majority of the transmission line pole structure foundation excavations will be made with power drilling equipment. A vehicle-mounted power auger or backhoe will be used to excavate for the structure foundations. Although it is not expected, blasting could in some instances be necessary because of the specific geologic conditions. In the unlikely event that blasting is necessary, conventional or plastic explosives will be used. Safeguards (e.g., blasting mats) will be employed when adjacent areas require protection.

Installation of new concrete pole structures to support the 230-kV circuits will begin with the excavation of foundations approximately 6 feet in diameter and 20 feet in depth. Excavation of soils for structure foundations will produce approximately 13 cubic yards per structure (a total of approximately 5,700 cubic yards for the entire length of the transmission line). Once the foundation holes have been cleaned, the concrete structure with preassembled insulators, hardware, and stringing sheaves will be lifted into position and inserted into the foundation hole; native materials from the initial foundation excavation, clean gravel, and/or concrete may then be used to complete the backfill and create a foundation. Erecting each concrete pole structure will take approximately 2 to 3 hours.

NOTES:

1. THIS DETAIL APPLIES TO TOPSOIL STOCKPILES THAT WILL BE IN PLACE FOR 4 WEEKS OR MORE.
2. SILT FENCES SHALL BE INSTALLED IN ACCORDANCE WITH DRAWING TITLED "SILT FENCE INSTALLATION DETAIL."
3. SILT FENCES SHALL BE REMOVED WHEN TOPSOIL IS SPREAD AND AREA RESTORED.



REFERENCE: CALIFORNIA STORMWATER BMP HANDBOOK,  
CABMPHANDBOOKS.COM



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Figure 11: Typical Topsoil Stockpile Silt Fence  
Detail

For structures not using the excavated materials as backfill, excavated soils from each structure foundation (approximately 13 cubic yards) will be spread around the base of each structure the area in a manner to promote drainage away from structure. Any additional material remaining will be spread in the area to restore the original grade or will be used as fill in access road construction/maintenance. Therefore, it is anticipated that no hauling of surplus materials will occur.

Exceptions to this policy will be made only where structure placement in a dry wash was inevitable. The 1602 permit from the California Department of Fish and Game (CDFG) states:

“Spoil sites shall not be located within any watercourses where spoil could be washed back into a stream/channel or where it will cover aquatic or desert riparian vegetation. Any materials placed in seasonally dry portions of a 1602 jurisdictional resource that could be washed downstream or that could be deleterious to aquatic life shall be removed from the project site prior to inundation by high flows.”

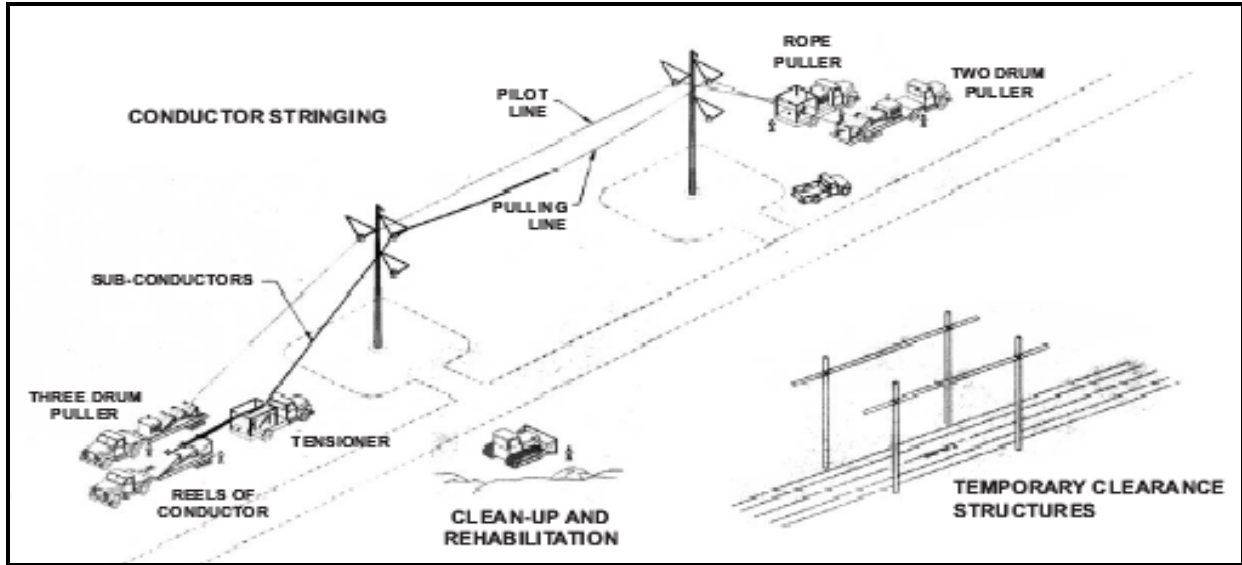
Design of the line avoided dry washes and most are spanned by the transmission line. In the few occasions where a structure will be installed within the high water mark of a dry wash, spoil material from the excavation will be taken with a front end loader and spread on low areas in the access road more than 150’ from the edge of the high water mark of the wash. Where structures must be installed in dry washes, “topsoil” does not exist and will not be removed or stockpiled. Prior to construction, the Environmental Inspector will flag those structures where topsoil will not be removed and where spoil material must not be spread, and will assure that no spoil materials are stored within the dry wash.

The first 25 structures are located in or near agricultural lands that have been or are irrigated and that drain to the Colorado River. Any stormwater runoff from these structures would be contained within the immediate vicinity of the construction by the installation and management of temporary BMPs such as silt fencing, thereby preventing runoff into waters of the state and complying with CDFG provisions in the 1602 Permit.

### **3.6.4 Conductor Installation**

Typical conductor stringing activities are illustrated in Figure 12. For public protection during wire installation, crossing structures will be erected adjacent to highways, railroads, power lines, structures, and other obstacles. Crossing structures will generally consist of H-framed steel structures placed on either side of an obstacle. These structures will prevent ground wire, conductor, or equipment from falling on an obstacle, and will be removed following the completion of conductor installation. Ground disturbance associated with crossing structures is detailed in Table 3. Equipment for erecting crossing structures will include augers, line trucks, pole trailers, and small cranes. Crossing structures may not be required for small roads or other areas where suitable safety measures such as barriers, flagging, or other traffic controls could be used.

**Figure 12. Typical Conductor Stringing Activities**



Pilot lines will be pulled (strung) from structure to structure and threaded through the stringing sheaves at each structure. Helicopters may be used during this phase of the work to minimize or otherwise eliminate the need to traverse the ROW along the ground from structure to structure. Following pilot lines, a larger diameter, stronger line will be attached to conductors to pull them onto structures. This process will be repeated until the ground wire or conductor is pulled through all sheaves

The shield wire and conductors will be strung using powered pulling equipment at one end and powered braking or equipment tensioning at the other end of each conductor stringing segment. Sites for tensioning equipment and pulling equipment will be approximately 3 miles apart. Tensioners, line trucks, wire trailers, and tractors needed for stringing and anchoring the ground wire or conductor will be necessary at each tensioning site. The tensioner, in concert with the puller, will maintain tension on the shield wires or conductors while they are pulled through the structures. The pulling site will require approximately half the area of the tension site. A puller, line trucks, and tractors needed for pulling and temporarily anchoring the shield wires and conductor will be necessary at each pulling site.

### **3.6.5 Cleanup and Site Reclamation**

Construction sites, material storage yards, and access roads will be kept in an orderly condition throughout the construction period. Approved enclosed refuse containers will be used throughout the project. Refuse and trash will be removed from the sites and disposed of in an approved manner. Oils or chemicals will be hauled to a disposal or recycling facility authorized to accept such materials. Open burning of construction trash will not be allowed.

After construction, the ROW will be restored as required by the property owner or land management agency. All practical means will be made to restore the land to its original contour and to restore natural drainage patterns along the ROW.

The BEPTL will implement erosion control, topsoil retention and re-spreading, limited grubbing of native stock, and imprinting to produce successful desert restoration and assist in catching and retaining precipitation. Topsoil replacement with native seed bank materials has proven successful with recent nearby linear projects in restoring native vegetation. Restoration techniques include reserving the top 6 to 12 inches of soil and any vegetation or woody material removed prior to construction. Topsoil will be segregated and stockpiled along the sides of the disturbance areas. This layer of soil contains the seed bank for the area. After all construction disturbance is complete, contours for all areas not designated for permanent use (limited to structure locations, spur roads, and access roads) will be restored and the reserved topsoil and woody material will be redistributed within disturbed areas. Reserved soil will be bladed back across the site and the soil will be imprinted with a mechanical device (sheepsfoot or other device acceptable to the land owner or manager) and woody material, where available, will be scattered over the surface to provide more favorable microclimate for successful germination and survival of native vegetation.

### 3.7 Construction Schedule

The proposed BEPTL is estimated to take approximately 12 months to construct, not including engineering, design, and permitting. The proposed construction schedule will commence after securing all required approvals and permits, and will require using multiple crews working simultaneously on different BEPTL project components. Table 4 provides the approximate length of each construction phase for transmission line and substation construction. This table illustrates the duration of major activities. At this time, construction is estimated to begin in February 2009.

**Table 4. Construction Schedule**

<b>Activity</b>	<b>Schedule (Month after Start)</b>
Construct access and spur roads	0-4
Erect structures for 230-kV line	3-6
Conductor stringing	6-10
Substation modification	0-12
Energize new circuit	11-12
Total construction (months)	12

Landowners and tenants adjacent to the ROW will be notified by mail in advance of construction in their areas. Construction will generally take place between 7 a.m. and 7 p.m., except for those areas where local conditions or traffic considerations dictate otherwise; in these cases, working hours would be revised to be consistent with local requirements or adopted mitigation measures for the BEPTL. Although construction will not take place near any sensitive noise receptors (e.g., schools), appropriate procedures and protocols will be used to reduce noise impacts; such as minimizing work during the holidays.

BMPs will be installed at laydown areas before the laydown areas are occupied. The airport laydown area has been approved for early occupancy, and Blythe Energy anticipates that fencing will begin January 15, 2009. The remaining laydown areas will be fenced and silt fencing installed immediately after Notice to Proceed is received, anticipated for February 9, 2009. All laydown areas will be fenced both for security, with a chain-link fence and gates, and for desert tortoise exclusion. In addition, silt fences will be installed on the downhill side of the laydown areas. Silt fences will be installed parallel to and just inside the temporary/tortoise fence on the downgradient sides of all four laydown areas. Silt fences will be inspected daily during active construction, monthly when use of the laydown area is not active, and within 24 hours of a rain event for all laydown yards. Silt fencing that has sagged or fallen, or has filled with sediment, will be repaired, replaced, or restored within 24 hours of an inspection determining impairment of function.

Laydown areas will be in service for about 12 months. When construction needs for laydown areas have ended, the silt fences will be removed when the laydown yards are decommissioned. Security and tortoise fencing will also be removed and the site restored.

BMPs will be used around topsoil stockpiles when stockpiles are in place for 4 weeks or longer. After 4 weeks, silt fences will be installed on the downhill side of the stockpile. If it is anticipated that the topsoil piles will be in place for over 4 weeks, the silt fence may be installed at the time of stockpiling. Silt fences will be removed immediately prior to re-spreading of topsoil.

### **3.8 Operation and Maintenance**

Following construction of the proposed BEPTL, the facilities will be operated and maintained by Blythe Energy or a third party, as appropriate.

The transmission line will be inspected on a regular basis by both ground and aerial patrols. Ground patrols, using one four-wheel-drive (4WD) 1-ton truck and two-person crews, will use existing access and spur roads to reach structures. Because SCE currently uses and maintains the transmission line access road to service the D-PV1 500-kV line, additional road reconstruction or grading for maintenance is not anticipated as part of annual patrols associated with the proposed BEPTL. Routine ground patrol inspections will be conducted once a year for the entire line.

Detailed inspections will only be conducted if a circumstance or problem is observed during routine inspections requiring additional attention. Detailed inspections may include maintenance and will be limited to that portion of the line where an issue was noted. Detailed inspections and accompanying maintenance will be accomplished with a four-person crew using two vehicles, one likely a boom truck or personnel hoist on a 4WD truck. No road reconstruction or grading will be required to accommodate detailed inspections. When access is required for non-emergency maintenance and repairs, the BEPTL will adhere to the same precautions identified for original construction.

Operation of the transmission line will be coordinated with utilities operating facilities along the BEPTL alignment to ensure that prudent safety requirements will be met. Specific crossing permits from these utilities will be obtained when necessary.

## **4.0 SITE DESCRIPTION**

This section provides an overview of physical features of the site and potential impacts of the BEPTL on them.

### **4.1 Vegetation**

The BEPTL crosses 55.9 miles of creosote bush scrub, 6.1 miles of partially stabilized desert dunes, 2.2 miles of desert wash woodland, 3.1 miles of agricultural lands, and less than 0.1 mile of urban/developed area. Installing the transmission line structures requires a work area and an associated spur road that will be cleared before construction begins. Therefore, vegetation will be removed at construction pads and spur roads along the ROW. Impacts of vegetation removal in the BEPTL site's arid desert environment will have longer-term consequences because of the slower re-vegetation and recovery process in the area. See Table 5 for a summary of disturbance area calculations.

### **4.2 Soils**

Soils crossed by the proposed BEPTL include sandy loams, silty clay loams, silty clays, gravelly loamy sands, gravelly sands, sand, and dune soils (BLM and IID 2003). In the Palo Verde Valley, the soils are primarily formed in sediments deposited by the Colorado River. These soils are highly productive and ideal for agricultural use due to their mineral content. The Natural Resources Conservation Service classifies the following soil types encountered in the area as prime farmland: Aco gravelly loamy sand, Aco sandy loam, Orita gravelly fine sandy loam, and Rositas fine sand on zero to 2 percent slopes.

Soils were evaluated according to major limitations that could affect construction or increase the potential for soil impact. The primary limitations include high water erosion potential, high wind erosion potential, and shallow depth to bedrock. The transmission line is not proposed for construction in actively irrigated agricultural fields, but rather along existing access roads from structure 5 through structure 25, where the BEPTL enters desert vegetation. There is little potential for soil compaction. There is a high potential for wind erosion, and mitigation measures will be implemented to reduce potential impacts to a level of insignificance.

The transmission line route is adjacent to irrigated land in the Palo Verde Valley from approximately milepost 1.4 to 3.2 (see Figure 3, Sheet 2). Irrigation drains and canals will not be affected by construction of the transmission line because access roads are already present along this portion of the route, and structure locations will be placed avoiding irrigation drains and canals. Additionally, BEPTL representatives will contact adjacent landowners regarding the location of other irrigation systems that could be affected by construction.

**Table 5 Habitat Disturbance for BEPTL Project, revised January 2009**

Location	Creosote Bush Scrub			Desert Dunes			Desert Dry Wash Woodland			Agriculture			Total		
	Perm. acres	Const acres	Total acres	Perm. acres	Const acres	Total acres	Perm. acres	Const acres	Total acres	Perm. acres	Const acres	Total acres	Perm. acres	Const acres	Total acres
BEP Substation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transmission Line (Includes Access and Spur Roads)	49	40.39	89.39	8.59	9.22	17.81	3.85	7.34	11.19	0.92	0.68	1.6	62.36	57.63	119.99
Crossing, splicing, pull sites	0	12.92	12.92	0	3.05	3.05	0	2.31	2.31	0	0.59	0.59	0	18.87	18.87
Access Road Improvement	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Laydown Areas	0	16.02	16.02	0	0	0	0	0	0	0	10	10	0	26.02	26.02
Julian Hinds Substation	0.5	0.4	0.9	0	0	0	0	0	0	0	0	0	0.5	0.4	0.9
<b>TOTAL</b>	49.5	69.73	119.23	8.59	12.27	20.86	3.85	9.65	13.5	0.92	11.27	12.19	62.86	102.92	165.78

### 4.3 Hydrology

The proposed BEPTL is located in the Mojave Desert region of Southern California. Hot summers, mild winters, infrequent rainfall, variable winds, and very low humidity characterize the regional climate. The average maximum temperatures in the region vary from 67 degrees Fahrenheit (°F) in winter to 120°F in summer. Minimum temperatures rarely drop below freezing.

Most rainfall in the area occurs within a 3-month winter season between December and February as Pacific storms move eastward. Typical annual rainfall in the area totals approximately 2.5 to 5.5 inches with over half of the annual rainfall falling between November and February (Table 6).

**Table 6. Mean Precipitation in Project Area (inches)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Blythe	.48	.40	.34	.18	.02	.02	.27	.68	.38	.26	.19	.44	3.66

### 4.4 Dry Desert Washes

Dry desert washes are frequent from structure 25 to structure 435 and tend to run perpendicular to the BEPTL. There are drainages that are dry for most of the year and carry runoff from occasional rain events one or two days a year. Washes vary in size from a couple of feet wide to hundreds of feet wide, depending on the area drained. Dykes and levees were constructed and are maintained by the state of California Department of Transportation (CalTrans) to divert and concentrate the water draining from south to north towards what is now the I-10 freeway to managed wash crossings under the freeway. Washes crossed by the BEPTL are detailed in Appendix C. Structure placement was avoided to the extent possible in dry washes. Most washes are spanned by the BEPTL. Where wash installation is unavoidable, BMPs as specified in Section 3.5.3, above.

### 4.5 Critical Areas

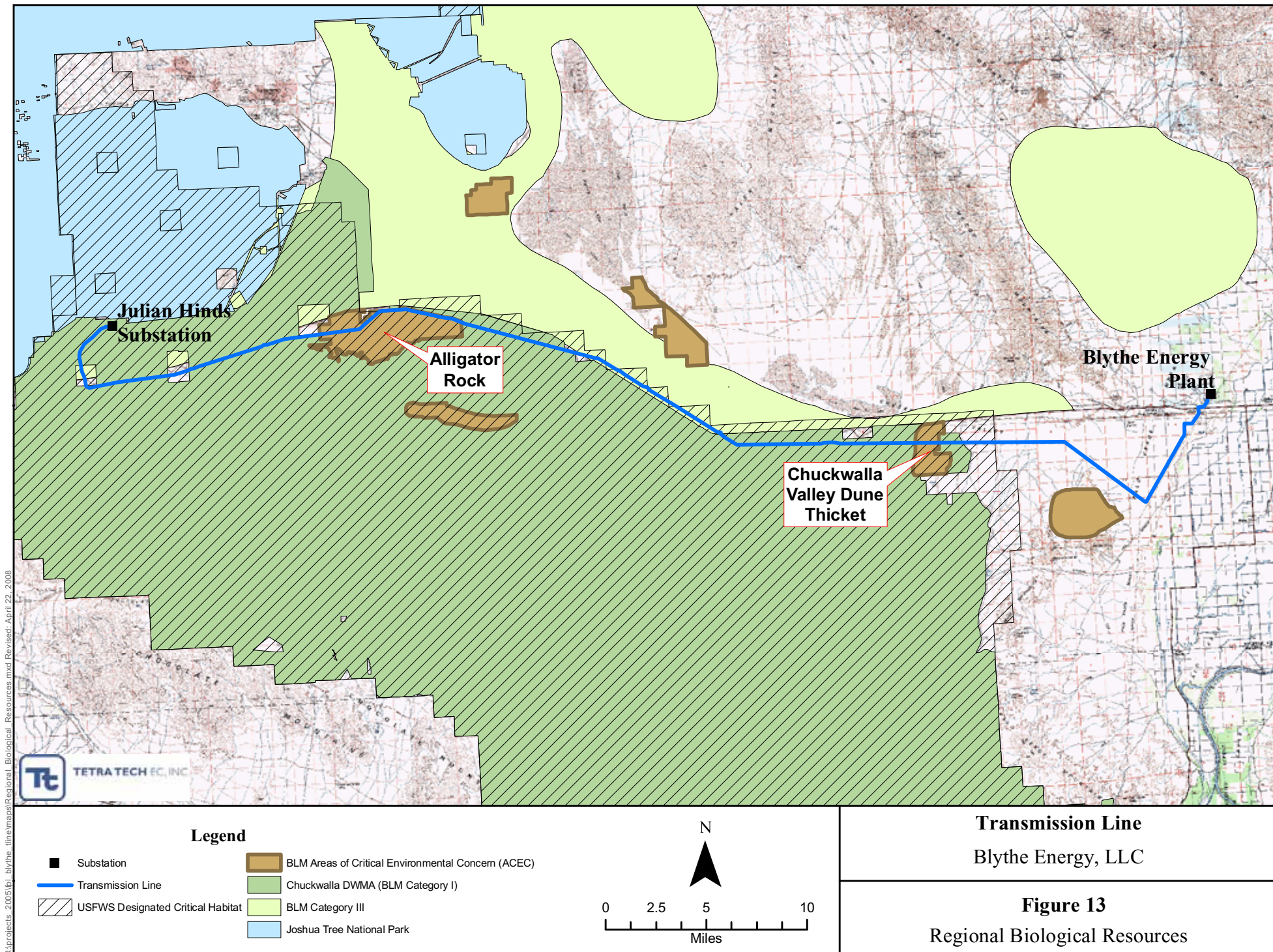
Most of the proposed BEPTL alignment crosses lands managed by the BLM. The BLM first published a comprehensive management plan for this area in 1980 (California Desert Conservation Area Plan 1980, as amended). It has been amended several times, and its most recent publication was 1999. BLM has completed a plan amendment called the Northern and Eastern Colorado Desert Coordinated Management Plan (BLM and CDFG 2002). These plans establish critical areas called Areas of Critical Environmental Concern (ACECs) and Desert Wildlife Management Areas (DWMAs). The critical areas are illustrated in Figure 7. The proposed transmission line passes through approximately 1.2 miles of the Chuckwalla Valley Dune Thicket ACEC, designated for wildlife habitat protection, approximately 7.4 miles of the Alligator Rock ACEC, which is designed to protect cultural resources, and approximately 50 miles of the Chuckwalla DWMA, designed to protect desert tortoise and other desert wildlife habitat.

#### **4.6 Pollutant Source**

Most of the project area is adjacent to undeveloped land. These undeveloped areas are not known to contain pollutant sources other than naturally-formed sediment due to erosion during storm events across sparsely vegetated hillsides. Therefore toxic pollutants are not likely to be contained in storm water. The first 25 structures are located in or near agricultural lands that have been or are irrigated and that drain to the Colorado River. Any stormwater runoff from these structures would be contained within the immediate vicinity of the construction by the installation and management of temporary BMPs such as silt fencing. These lands, originally nearly flat, have been flattened further during preparation for farming and have virtually no slope. Therefore, no additional measures will be needed.

Developed areas include the BEP and Julian Hinds Substation. Source control for potential pollutant source surrounding existing structures is already in place, and additional measures are not necessary.

Constructing within dry washes will be avoided whenever possible. BMPs will be implemented to prevent run on from adjacent property onto the construction site. Major grading is not necessary for this project; therefore new drainage patterns will not be developed. A table listing dry washes that may potentially be impacted is included in Appendix C.



## **5.0 DRAINAGE, EROSION, AND SEDIMENT CONTROL**

This section describes erosion and sediment control practices that will be implemented for soil stabilization during and after project construction. Methods focus on minimizing disturbance during construction, temporary and permanent erosion controls, and soil stabilization. In summary, these practices will include, as appropriate:

- Minimizing initial land disturbance
- Clearing and disturbance within the working area
- Topsoil segregation, stockpile, and replacement
- Temporary and permanent erosion control
- Soil stabilization utilizing erosion resistant coverings during construction

The erosion control procedure and dry desert wash crossing procedures discussed in this DESCP/SWPPP identify general and site-specific measures to be implemented to minimize the potential for erosion and associated discharges of soil into dry desert washes. BEPTL management and inspection personnel will be responsible for ensuring appropriate practices are implemented in a timely fashion. Erosion control devices, such as silt fencing and straw bales, will be made readily available prior to anticipated storm events.

Dust control and wind erosion for all construction activities will be implemented as specified in Condition of Certification AQ-SC3.

### **5.1 Transmission Line**

The BEPTL will not install conventional erosion controls (e.g., straw bale sediment barriers, silt fencing, etc.) along the entirety of the transmission line route because of the relatively level nature of the topography (i.e., less than 5 percent grade) along the transmission line ROW, the lack of rainfall in the region, and the short time needed for construction at individual structure locations. When rainfall does occur, it is often heavy enough to cause flash flooding that would render typical erosion controls ineffective. Temporary erosion control measures will be installed at specific structure sites that would impact dry desert washes or are located in areas with a topographic grade greater than 5 percent. Spoil materials would not be spread around the bases of structures in dry washes. The structure base itself is solid steel or concrete, and the foundation is solid concrete. Water will flow around the structures without impairment and no erosion would occur once the structure is in place and the natural gradient has been restored.

### **5.2 Substation Facilities**

Blythe Energy manages the BEP and has gravel and paved surfaces throughout. SCE manages the Julian Hinds Substation, also a flat, gravel area. No additional erosion control measures are proposed for either the BEP or the Julian Hinds Substation.

### 5.3 Upland Erosion Control Measures

Erosion control measures will be incorporated into all aspects of the construction phase to minimize production, transport, and deposit of sediment associated with transmission line construction. These measures will (1) transport surface runoff across the ROW with minimal erosion; (2) direct surface drainage away from the ROW; (3) protect the soil surface from the raindrop impact; and (4) provide down-gradient control of runoff and sediment from all disturbed areas.

Temporary erosion control measures will be implemented within 24 hours after the start of earthwork and will be inspected at least daily during construction and reclamation activities and after each storm event. Temporary structures will remain in place until the Environmental Inspector(s) has judged they are no longer required.

The results of the geotechnical exploration program and completed structure design show that the groundwater table is well below the maximum depth of excavation required for any of the structures. Therefore, water will not be encountered during construction and no dewatering will be required.

All disturbed areas of the construction site will be stabilized by regarding to original topography. Protected storage areas for stockpiled soils or other materials may be covered using tarps or other erosion resistant coverings and secured. Covering may include the use of tackifiers to reduce wind erosion to a minimum. Given the infrequent rains and the short duration of soil storage, tarps or other coverings may not be required.

### 5.4 Construction Best Management Practices

Construction site Best Management Practices (BMPs) are best conventional technology/best available technology-based BMPs consistent with the BMPs and control practices required under the Clean Water Act. In general, all BMPs will be implemented with the first ground disturbance that occurs at any location. The BMPs will remain in place until construction is complete at each location and the soil surface has been restored or otherwise treated (i.e., gravel surface). Table 4 contains the schedule of construction activities including road improvement and construction, foundation excavation, and structure installation.

Construction BMPs to be implemented on this project are derived mainly from the CalTrans Storm Water Quality Handbook, Construction Site BMP Manual, which may be found on the CalTrans website (CalTrans 2003).

**BMPs that Reduce Erosion and Sediment-Laden Storm Water Runoff.** Whenever possible, the primary protection measures at the site will be erosion control BMPs, with sediment control BMPs used as a backup measure.

Erosion BMPs to be implemented will include the following:

- (SS1) Scheduling. This includes site planning considerations, including scheduling of work during dry weather periods. Because the average annual rainfall is less than 5 inches, no limited operating seasons are anticipated for the BEPTL.

- (SS2) Preservation of existing vegetation. This includes the identification and preservation of desirable vegetation that provides erosion and sediment control benefits.
- (SS9) Earth dikes/drainage swales and lined ditches. These are structures that intercept, divert, and convey surface run-on, generally sheet flow, to prevent erosion.
- (WE-1) Wind erosion control. Wind erosion control consists of applying water and/or other dust palliatives as necessary to prevent or alleviate erosion by the forces of wind. In addition, dust control and wind erosion for all construction activities will be implemented as specified in Condition of Certification AQ-SC3.
- (WM-1) Material delivery and storage. This involves procedures and practices for the proper handling and storage of materials in a manner that minimizes or eliminates the discharge of these materials to the storm drain system or to watercourses.
- Water bars. This includes constructing earthen berms or trenches to divert water from roads to prevent erosion if slopes on the roads are such that the roads may concentrate water.

Sediment control BMPs to be implemented will include the following:

- (SC-1) Silt fence. A silt fence is a temporary linear sediment barrier of permeable fabric designed to intercept and slow the flow of sediment-laden sheet flow runoff.
- (SC-9) Straw bale barrier. A straw bale barrier is a temporary linear sediment barrier consisting of straw bales designed to intercept and slow sediment-laden sheet flow runoff.

Permanent Julian Hinds Substation expansion area BMPs:

- No additional grading is required.
- Gravel surface will remain after construction, similar to the existing substation.

Descriptions of proposed erosion control measures are provided in Appendix D as copies of the standard CalTrans BMPs referenced.

### **BMPs for Waste-Handling and Disposal**

Description of waste handling is included in Section 6. BMPs for material and waste handling are also listed above. Additional measures include:

- (WM-1) Material delivery and storage. This involves procedures and practices for the proper handling and storage of materials in a manner that minimizes or eliminates the discharge of these materials to the storm drain system or to watercourses.

### **Post-Construction BMPs**

The Project area topography will not change noticeably. Areas will be restored to original contours. Therefore, most of the Project area will not require additional post-construction BMPs after restoring the site to original contours. Because the structures are either single or double concrete or steel round structures with no additional permanent structures, they do not divert or interfere with the natural flow of storm water and will not add to erosion or impair natural water flow. There is no need for additional post-construction or permanent erosion control.

### **Non-storm Water Management**

Details of the current site hydrology are included in Section 4. There is no non-storm water on site.

## **6.0 OTHER CONTROLS**

This section discusses other control measures that may be implemented pertaining to waste management and equipment maintenance and tracking.

### **6.1 Hazardous Material Handling and Storage**

There will be limited amounts of chemicals stored and used during construction of the BEPTL facilities. The storage, handling, and use of all chemicals will be conducted in accordance with applicable laws/ordinances, regulations, and standards. Chemicals will be stored in the laydown areas, a minimum of 250 feet away from existing drainage paths. Throughout the rainy season, the storage areas will be covered during non-working days and prior to rain events to minimize collection of storm water in the containment areas. Containers will be kept closed at all times except when filling or dispensing product. Visual inspections of the area and storage containers will be routinely conducted by the Environmental Supervisor (or designee) to ensure materials are properly stored and maintained. BEPTL will establish a hazard communication (HAZCOM) program that will be used to train personnel on safe handling procedures, material safety data sheet awareness, and proper container labeling and storing. The project HAZCOM program will require each contractor to provide a written HAZCOM plan. In addition, each contractor will be required to develop and keep an updated list of all hazardous chemicals used at the site(s).

The BEP is a zero-discharge facility and as such is exempt from a requirement to prepare and maintain a SWPP Plan. This SWPPP covers the construction for the BEPTL project only. Because part of the BEPTL project will occur within the fenceline of the BEP, this SWPPP will cover the temporary construction activities only. After construction is complete, the operation of the plant will continue, as before, as a zero-discharge facility.

Specifically, the conversion of the Buck Substation from its current 161 kV operating voltage to 230 kV involves the temporary removal of transformer insulating fluid to on-site tankers while the conversion is made. After conversion is complete, the insulating fluid will be returned to the transformers. There is a small potential for spillage during fluid transfer and temporary storage. No oil will be permanently stored on site.

In addition to the transformer oil removal, storage, and return, a 2MW temporary generator accompanied by a 2500 KVA portable step-up transformer will be used as a secondary back-up power supply to maintain lights and other electrical services during the second of two scheduled plant outages required for this work (up to 25 days). This generator will be a model XQ2000 with a capacity of 1,250 gallons. It has a 110 percent spill containment double walled fuel tank which will need to be refueled from one to three times per day. The portable transformer, which holds 800 gallons of oil, is a closed unit. Thus, there is also the potential for spills associated with diesel fuel and oil use and storage. Blythe Energy will follow all existing plant procedures for potential spills associated with generator fuel use and temporary storage. Additional measures to address potential spills associated with

transformer insulating fluid and use of the temporary generator and associated transformer are included in a Construction Spill Prevention, Containment, and Countermeasures Plan (SPCC) created for the project.

## **6.2 Solid and Hazardous Waste Management**

The construction of the BEPTL will generate various types of non-hazardous solid wastes, including excess concrete, lumber, scrap metal, and empty non-hazardous chemical containers. The generation of waste materials will be minimized through efficient and careful use of materials, and recycling when possible. Non-hazardous materials will be used where acceptable to meet construction requirements. All non-hazardous waste will be collected and stored in metal dumpsters provided by a licensed solid waste management company. The dumpsters will be located at the laydown sites. The dumpsters will meet local and state solid waste management regulations, and be provided with solid lids or removable flexible covers. Trash and construction debris will be deposited in the dumpsters; the dumpsters will be covered at all times, and then hauled off site weekly to an approved local Class III landfill. No construction waste will be buried on site.

Small quantities of hazardous wastes will also be generated over the course of construction. These may include waste paint, spent solvents and thinners, and spent welding materials. All hazardous wastes generated during plant construction will be handled and disposed of in accordance with applicable laws, ordinances, regulations, and standards. Hazardous wastes generated during construction will be collected at a 90-day storage area located at the Desert Center laydown area. All storage areas will be located away from existing storm water drainage paths. The 90-day storage area will be constructed on a concrete pad (or equivalent) and surrounded by concrete curbing (or equivalent) to form a containment area of sufficient size to hold 10 percent of the volume of all containers or 100 percent of the largest container (whichever is greater). The containment area will be equipped with a manual valve (or equivalent) to allow for the release of clean, uncontaminated storm water. Throughout the rainy season, the storage areas will be covered during non-working days and prior to rain events to minimize collection of storm water in the containment areas. However, specialized plastic or metal containers or bins, with integral spill containment, will be considered in lieu of constructing a concrete pad. All accumulated waste will subsequently be delivered to an authorized waste management facility.

## **6.3 Storage, Cleaning, and Maintenance Of Equipment**

Equipment will be parked within the approved construction ROW or in staging areas. Equipment parked overnight will be located a minimum of 150 feet from desert dry washes. The construction contractor(s) will monitor for leaking equipment, and absorbent pads will be placed to catch all leaks as necessary until the equipment can be removed from the ROW for maintenance and repairs. Environmental Inspector(s) will document any spills and subsequent cleanup activities. If leaks are detected, the contractor will be notified for corrective action; all spills will be cleaned up immediately. Major equipment cleaning and maintenance will be conducted in the contractor's construction yards, at commercial cleaning

facilities, or at commercial repair shops. Minor maintenance, such as oil changes and minor repairs for large equipment (that cannot be easily moved), will be permitted on the ROW only as necessary and a minimum of 150 feet away from any desert dry wash following notification and approval by the Environmental Supervisor. All precautions to prevent and contain spills will be enforced.

#### **6.4 Off-Site Vehicle Tracking**

Entrances to the construction area will be monitored to ensure that off-site vehicle tracking of sediments is minimized. Excess mud and rocks will be removed from the vehicles prior to leaving the construction area. The paved streets nearest the project work sites will be kept clear of excess mud, dirt, or rock tracked from the site. Furthermore, windblown material will be swept from adjacent road areas, as needed. Accumulated sediment or silt will not be swept into any storm drain system.

#### **6.5 Sanitary Waste Management**

During construction, sanitary wastes will be collected within approved portable toilet/sewage facilities. The portable facilities will be located at the BEP, Desert Center, or Julian Hinds and along the ROW as needed where crews are working. They will not be located within or near storm water drainage pathways. The facilities will be inspected regularly by the Environmental Supervisor (or designee) to make sure everything is functioning properly and there are no visible signs of leaks. A licensed sanitary waste collection service will be used to empty wastes for off-site disposal and to service the facilities as needed.

## **7.0 MAINTENANCE AND INSPECTION PROCEDURES**

Procedures covering maintenance of this DESC/SWPPP and inspection and monitoring of erosion, sediment control, and stormwater quality are discussed in this section.

### **7.1 Maintenance of the DESC/SWPPP**

The DESC/SWPPP will be retained in the contractor's construction management field office. Additionally, the DESC/SWPPP will be retained in the construction management office under supervision of the Construction Manager and Environmental Supervisor. The plan will be made available to the public or state and federal agencies upon request. Table 1 provides the titles, names, and telephone numbers of the persons responsible for administering this DESC/SWPPP and inspecting storm water controls. Updates to the document will be sent as needed to authorized holders of the document as replacement pages. Versions will be numbered and a reference sheet provided with each update. BEPTL will keep a master file of all updates.

### **7.2 Inspections**

Inspections of erosion and sediment control will also conform to BMPs. The following sections describe the routine inspection practices that will be performed for the project.

The designated person with responsibility of this DESC/SWPPP will have the authority to stop activities that violate the environmental conditions of the Construction General Permit or other authorization and order corrective action. The designated person with responsibility for implementing this DESC/SWPPP will:

- Conduct inspection of erosion control measures as they are completed to ensure they will function as desired.
- Conduct inspections following each rainstorm to ensure replacement of damaged or missing structures and materials.
- Notify the project construction crew when to implement adequate precautions in anticipation of rainy weather conditions.
- Define a schedule for watering the access roads and other disturbed areas for dust suppression.
- Develop additional remedial erosion and sediment controls for problem areas, if any.
- Ensure project compliance with the DESC/SWPPP and applicable laws, ordinances, regulations and standards.
- Verify that the limits of authorized construction work areas are properly marked.
- Identify stabilization needs in all areas.
- Locate control structures to ensure they will not direct sediment into known cultural resource sites or locations of sensitive species

- Ensure that temporary erosion controls are properly installed and maintained daily, if necessary.
- Inspect temporary erosion control measures at least:
  - Once a day in areas of active construction or equipment operation
  - Once a week in areas with no construction or equipment operation
  - Within 24 hours of each 0.5 inch of rainfall
- Ensure the repair of all ineffective temporary erosion control measures within 24 hours of identification.

Routine maintenance measures to be implemented include the following:

- Silt fences will be inspected and replaced/repared as needed. Accumulated sediment will be removed when it reaches a depth of 6 inches.
- Straw bales placed along slopes will be inspected after each rainstorm. Sediment will be removed and deposited in a stable area not subject to erosion.
- If the erosion protection measures are washed away as a result of storm runoff, the damaged area will be replaced. Special attention to these areas will be maintained until erosion is adequately controlled.
- Protected storage areas for stockpiled soils or other materials will be inspected. Tarps or other coverings will be replaced and secured.

As described above, temporary erosion controls will be installed, where necessary, immediately after initial disturbance of the soil, be properly maintained throughout construction, and reinstalled as necessary until replaced by permanent erosion controls (at dry wash culvert crossings, for example). Responsibility for inspection, maintenance, and repair of control structures rests with the on-site employee(s) designated to implement this DESCP/SWPPP. This person will be on site during all construction to ensure and document compliance with this plan. Information regarding the timing of all major construction activities will be recorded. All such information will be maintained on site or with the permittee, as required in the General Permits.

The Environmental Inspector will document all erosion control inspections in the Environmental Daily Inspection Report. Furthermore, the contractor and the Environmental Inspector will monitor regional National Weather Service forecasts and reports for storm advisories. In the event of forecasted impending heavy precipitation, all temporary erosion control devices found needing repair or new installation will be repaired immediately. During this period, the contractor will provide additional personnel, vehicles, and materials to repair erosion control structure damage where noted during the inspection.

Should structures clog, deteriorate, fail, be damaged, or require maintenance, the contractor will conduct repair or replacements within 24 hours after deficiencies have been identified, weather and soil conditions permitting.

Once construction and soil stabilization of the ROW is completed, a Storm Water Notice of Termination form will be completed and submitted to the appropriate agencies. Following the termination of construction activities, environmental inspection reports will be maintained by the BEPTL and copies of the DESCP/SWPPP, NOI, and inspection reports will be maintained for a period of at least 3 years. The NOI is included in Appendix E.

## 8.0 REFERENCES

BLM (Bureau of Land Management) and CDFG (California Department of Fish and Game). 2002. Proposed Northern and Eastern Colorado Desert Coordinated Management Plan and Final Environmental Impact Statement. June 30, 2002.

Bureau of Land Management (BLM) and Imperial Irrigation District (IID). 2003. Desert Southwest Transmission Line Project Draft Environmental Impact Statement/ Environmental Impact Report. September.

CalTrans (State of California Department of Transportation). 2003. Storm Water Quality Handbooks, Construction Site Best Management Practices (BMPs) Manual. Project Planning and Design Guide. Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual. March. Available online at: [http://www.dot.ca.gov/hq/construc/stormwater/csbmpm\\_303\\_final.pdf](http://www.dot.ca.gov/hq/construc/stormwater/csbmpm_303_final.pdf).

CEC (California Energy Commission). 2006. Blythe Energy Project Transmission Line Modifications Amendment Petition 99-AFC-8C.

Tetra Tech. 2008. Blythe Energy Project Transmission Line Construction Access Road Plan. Prepared by Tetra Tech for Blythe Energy, LLC. July 2008.

## **APPENDIX A**

### **CEC Conditions of Certification Soil and Water**

**SOIL and WATER 1:** The project owner shall comply with the requirements of the General National Pollution Discharge Elimination System (NPDES) Permit for Discharges of Storm Water Associated with Construction Activity. The project owner shall develop and implement a Storm Water Pollution Prevention Plan for the construction of the entire project (Construction SWPPP) that meets the State Water Resources Control Board

**(SWRCB) requirements.**

**Verification:** The project owner shall submit copies to the CPM of all correspondence between the project owner and the SWRCB/ Regional Water Quality Control Board (RWQCB) related to the General NPDES permit for the Discharge of Storm Water Associated with Construction Activity within 10 days of its receipt (when the project owner receives correspondence from the SWRCB/RWQCB) or within 10 days of its mailing (when the project owner sends correspondence to the SWRCB/RWQCB). This information shall include copies of the Notice of Intent, receipt of Waste Discharge Identification (WDID) number from the SWRCB/RWQCB, Notice of Termination for the project, and all notices of violations or other enforcement actions.

**SOIL AND WATER 2:** Prior to site mobilization, the project owner shall obtain CPM approval for a site-specific final Drainage, Erosion and Sedimentation Control Plan (DESCP) that addresses all project elements and ensures protection of water and soil resources for both the construction and operation phases of the project. This plan shall address appropriate methods and actions, both temporary and permanent, for the protection of water quality and soil resources, demonstrate no increase in off-site flooding potential, meet local requirements, include legible drawings, details and complete narrative and identify all monitoring and maintenance activities. The final DESC/SWPPP shall address issues still remaining such as:

a) Identification of Permanent and Temporary BMPs

(1) Reconsider the need for erosion control in the perimeter drainage channels at Midpoint Substation where none is proposed currently.

(2) Incorporate BLM's recommendations for permanent BMPs and/or performance monitoring to determine if additional erosion control treatment is needed over time.

b) Agency Consultation & Permitting

Summarize the results of consultations with the Army Corps of Engineers, Regional Water Quality Control Board and CA Department of Fish and Game to identify relevant permit requirements for installation of transmission towers in the ephemeral drainages.

c) Clearing & Grading

Incorporate a description of plans for disposing of the approximately 5,700 cubic yards of soil resulting from the project transmission tower excavations at either the Blythe Sanitary Landfill or for construction/maintenance of access roads.

d) Project Scheduling

Provide a schedule for installation and removal of temporary construction BMPs in coordination, and in sequence with detailed construction activities for each project element.

e) Stormwater for Midpoint Substation

Provide stormwater flowrate and discharge calculations in support of the results provided in Soil & Water Resources Table 3.

f) Dewatering methods

*Include a text description for implementing dewatering methods in reference to the BMP Illustration – Straw Bale Dewatering Structure.*

The plan shall be consistent with the grading and drainage plan as required by Condition of Certification CIVIL-1 and may incorporate by reference any SWPPP developed in conjunction with any SWRCB/RWQCB NPDES stormwater permit.

**Verification:** No later than 60 days prior to the start of any site mobilization for any project element, the project owner shall submit the DESCP to Riverside County, the City of Blythe, the Western Area Power Administration, the Metropolitan Water District, and the Bureau of Land Management requesting review and comment within 30-days. Comments shall be directed to both the BEPTL and the Energy Commission CPM. The DESCP must be approved by the CPM prior to any site mobilization. During construction, the project owner shall provide a summary in the monthly compliance report on the effectiveness of the drainage, erosion and sediment control activities and the results of monitoring and maintenance activities. Once operational, the project owner shall provide in the annual compliance report information on the results of monitoring and maintenance activities for the life of the project.

## **APPENDIX B**

### **Agency Consultation**

**US Army Corps  
of Engineers®****LOS ANGELES DISTRICT  
U.S. ARMY CORPS OF ENGINEERS  
REGULATORY BRANCH**

915 Wilshire Blvd., Los Angeles, CA. 90017-3401  
P.O. Box 532711 Los Angeles, CA. 90053-2325  
(213) 452-3425 FAX: (213) 452-4196

**FACSIMILE TRANSMITTAL**

Date: 4/29/05 From: (213) 452-  
Recipient: Penny Eckert  
Office: TE  
Fax #: \_\_\_\_\_  
Phone #: \_\_\_\_\_  
Re: \_\_\_\_\_  
File #: \_\_\_\_\_

☐ Mark Durham..... (x3416)  
☐ Cori Farrar..... (x3296)  
☐ Crystal Marquez..... (x3418)  
☐ Dan Swenson..... (x3414)  
☐ Deanna Cummings..... (x3289)  
☐ Francine M. Nevarez..... (x3409)  
☐ Gerry Salas..... (x3417)  
☐ Jae Chung..... (x3292)  
☐ James Chuang..... (x3372)  
☐ Jason Lambert..... (x3361)  
☐ Josh Burnam..... (x3294)  
☐ Ken Wong..... (x3290)  
☐ RAMS ADMIN..... (x3411)  
☐ Mark Cohen..... (x3413)  
☐ Sandra Villaneda..... (x3407)  
☐ Stephanie Hall..... (x3410)  
☐ Susan Meyer..... (x3412)  
☐ John Yeressian..... (x3408)

Comments:

*Penny,  
Letter for B.E.P attached.  
Thanks for linear feet info.  
Deanna*

Signature: \_\_\_\_\_

5 Page(s) to follow

Should you have any difficulty in receiving all pages, please contact our office either  
directly to the persons above or the main office number at (213) 452-3425.



**DEPARTMENT OF THE ARMY**  
LOS ANGELES DISTRICT, CORPS OF ENGINEERS  
P.O BOX 532711  
LOS ANGELES, CALIFORNIA 90053-2325

REPLY TO  
ATTENTION OF

April 29, 2005

Office of the Chief  
Regulatory Branch

Blythe Energy, LLC  
Attention: Gary Palo  
700 Universe Blvd.  
North Palm Beach, Florida 33408

Dear Mr. Palo:

Reference is made to your application/letter (No. 200501261-DLC) dated March 2, 2005 for a Department of the Army Permit to construct the Blythe Energy Project in a non-jurisdictional area in the vicinity of Colorado River near Blythe, Riverside County, California.

Based on the information furnished in your application/letter, we have determined that your proposed project does not discharge dredged or fill material into a water of the United States or an adjacent wetland. Therefore, the project is not subject to our jurisdiction under Section 404 of the Clean Water Act and a Section 404 permit is not required from our office.

Furthermore, you are hereby advised that the Corps of Engineers has established an Administrative Appeal Process for jurisdictional determinations which is fully described at 33 CFR Part 331. The Administrative Appeal Process for jurisdictional determinations is diagrammed on the enclosed Appendix C. If you decide not to accept this approved jurisdictional determination and wish to provide new information, please send the information to this office. If you do not supply additional information you may appeal this approved jurisdictional determination by completing the attached "Notification of Administrative Appeal Options and Process and Request for Appeal" form and submitting it directly to the Appeal Review Officer at the address provided on the form.

Please be aware that our determination does not preclude the need to comply with Section 13260 of the California Water Code (Porter/Cologne) and we recommend that you contact the California Regional Water Quality Control Board to insure compliance with the above regulations. Furthermore, our determination does not obviate the need to obtain other Federal, state, or local authorizations required by law.

-2-

I am forwarding copies of this letter to: California State Water Resources Control Board, 1001 I Street, Sacramento, California 95814, Attention: Mr. Oscar Balaguer, Chief, Water Quality Certification. California Regional Water Quality Control Board, Region 7, Colorado River Basin, Attention: Mr. Adnan Al-Sarabi, 73720 Fred Waring Drive, Palm Desert, California 92260.

If you have any questions, please contact Deanna L. Cummings of my staff at (213) 452-3289.

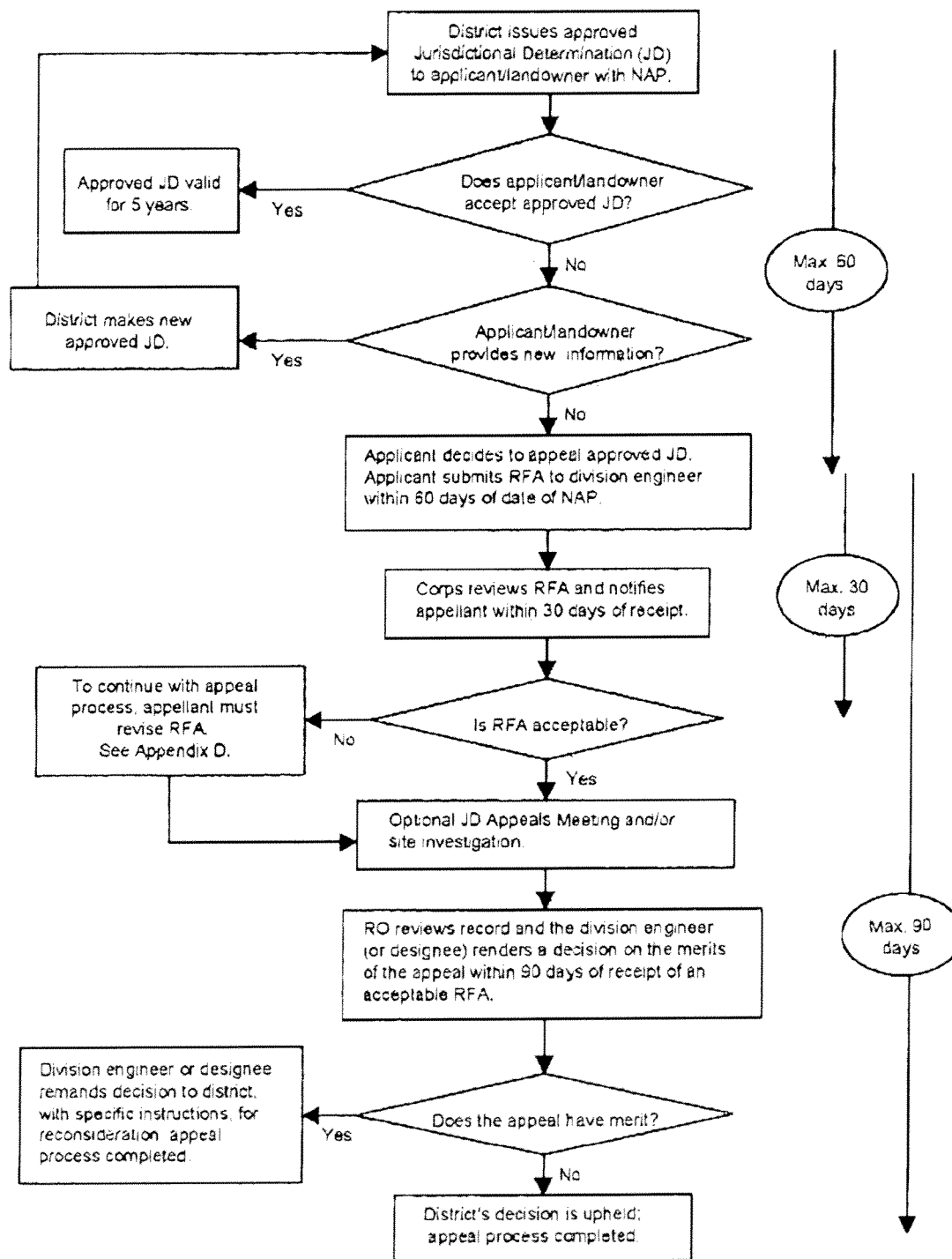
Sincerely,

A handwritten signature in black ink that reads "Mark Durham". The signature is written in a cursive, flowing style.

Mark Durham  
Chief, South Coast Section  
Regulatory Branch

-4-

## Administrative Appeal Process for Approved Jurisdictional Determinations



Appendix C

## NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Blythe Energy, LLC	File Number: 200501261	Date: April 29, 2005
Attached is:	See Section below	
<input type="checkbox"/> INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A	
<input type="checkbox"/> PROFFERED PERMIT (Standard Permit or Letter of permission)	B	
<input type="checkbox"/> PERMIT DENIAL	C	
<input checked="" type="checkbox"/> APPROVED JURISDICTIONAL DETERMINATION	D	
<input type="checkbox"/> PRELIMINARY JURISDICTIONAL DETERMINATION	E	

**SECTION I -** The following identifies your rights and options regarding an administrative appeal of the above decision.

Additional information may be found at <http://usace.army.mil/inet/functions/cw/cecwo/ieg> or

Corps regulations at 33 CFR Part 331.

**A: INITIAL PROFFERED PERMIT:** You may accept or object to the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below

**B: PROFFERED PERMIT:** You may accept or appeal the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

**C: PERMIT DENIAL:** You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

**D: APPROVED JURISDICTIONAL DETERMINATION:** You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

**E: PRELIMINARY JURISDICTIONAL DETERMINATION:** You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

## SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

**REASONS FOR APPEAL OR OBJECTIONS:** (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

**ADDITIONAL INFORMATION:** The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

**POINT OF CONTACT FOR QUESTIONS OR INFORMATION:**

If you have questions regarding this decision and/or the appeal process you may contact:

DISTRICT ENGINEER  
Los Angeles District, Corps of Engineers  
ATTN: Chief, Regulatory Branch  
P.O. Box 532711  
Los Angeles, CA 90053-2325

Tel. (213) 452-3425 FAX (213) 452-4196

If you only have questions regarding the appeal process you may also contact:

Douglas R. Pomeroy, Appeal Review Officer  
U.S. Army Corps of Engineers, CESP-ET-CO  
333 Market Street  
San Francisco, CA 94015-2195

Tel. (415) 977-8035 FAX (415) 977-8047

**RIGHT OF ENTRY:** Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

\_\_\_\_\_  
Signature of appellant or agent.

Date:

Telephone number:

**DEPARTMENT OF FISH AND GAME**

http://www.dfg.ca.gov  
Inland Deserts Region  
78-078 Country Club Drive, Suite 109  
Bermuda Dunes, CA 92203  
(760) 200-9178  
(760) 200-9358 fax



Notification No. 1600-2005-0022-R6

May 15, 2007

**AGREEMENT REGARDING PROPOSED STREAM OR LAKE ALTERATION**

THIS AGREEMENT, entered into between the State of California, Department of Fish and Game, hereinafter called the **Department**, and **Blythe Energy, LLC** (as represented by Tetra Tech FW, Inc., 1940 E. Deere Ave. Suite 200, Santa Ana, CA 92705) in the County of Riverside, State of California, hereinafter called the **Operator**, is as follows:

WHEREAS, pursuant to Section 1602 of the California Fish and Game Code, the Operator on the 11th day of January, 2005, notified the Department that it intends to divert or obstruct the natural flow of, or change the bed, channel, or bank of, or use material from the streambed(s)/lake of, the following waters:

Riverside County: 145 unnamed ephemeral washes between Blythe and Haywood Dry Lake. Complete descriptions of all crossings were provided in Attachment C as part of the 1602 application. The project passes through the following USGS 7.5 minute quadrangle maps: Ripley, Roosevelt Mine, Hopkins Well, East of Aztec Mine, Aztec Mines, Ford Dry Lake, Sidewinder Well, Corn Spring, Desert Center, and Hayfield. These washes are tributaries to the Sonoran Desert and Hayfield Dry Lake Watersheds.

WHEREAS, the Department (Represented by James Sheridan) has determined that such operation may substantially adversely affect those existing fish and wildlife resources including the desert tortoise (*Gopherus agassizii*) and all other aquatic resources and wildlife in the ephemeral washes in the area affected by the proposed project in this Agreement.

THEREFORE, the Department hereby proposes measures to protect fish and wildlife resources during the Operator's work. The Applicant hereby agrees to accept the following measures/conditions as part of the proposed work.

If the Operator's work changes from that stated in the notification specified above, this Agreement is no longer valid and a new notification shall be submitted to the Department of Fish and Game. Failure to comply with the provisions of this Agreement and with other pertinent code sections, including but not limited to Fish and Game Code Sections 5650, 5652, 5937, and 5948, may result in prosecution.

Nothing in this Agreement authorizes the Operator to trespass on any land or property, nor does it relieve the Operator of responsibility for compliance with applicable federal, state, or local laws or ordinances. A consummated Agreement does not constitute Department of Fish and Game endorsement of the proposed operation, or assure the Department's concurrence with permits required from other agencies.

This Agreement becomes **effective the date of the Department's signature and terminates on April 30, 2012**, for construction of the proposed project only. This Agreement shall remain in effect for that time necessary to satisfy the terms/conditions of this Agreement. Any provisions of the agreement may be amended at any time, provided such amendment is agreed in writing by both parties. Mutually approved amendments become part of the original agreement and are subject to all previously negotiated provisions. The Operator may request one extension of the agreement for a 12-month period if additional construction time is necessary. The extension shall be requested prior to the termination date of the agreement.

1. The following provisions constitute the limit of activities agreed to and resolved by this Agreement. The signing of this Agreement does not imply that the Operator is precluded from doing other activities at the site. However, activities not specifically agreed to and resolved by this Agreement shall be subject to separate notification pursuant to Fish and Game Code Sections 1600 et seq.

**Project/Site Description**

2. The Operator proposes to construct and operate a new 230-kV transmission line system. The project involves the installation of approximately 67.4 miles of new transmission line from the Buck Substation in

## STREAMBED ALTERATION AGREEMENT FOR NOTIFICATION NUMBER: 1600-2005-0022-R6

Blythe, west to the Julian Hinds Substation near Hayfield; all within Riverside County. The proposed transmission line route will generally follow Southern California Edison's (SCE) existing 500 kV Devers-Palo Verde ("D-PV1") transmission line.

3. The transmission line route is as follows: exiting the east side of Buck Substation to the east side of Buck Boulevard; south to Hobson Way; west on the south side of Hobson Way; south crossing over I-10 and continuing south to the IID 161-kV Blythe-Niland transmission line; south, parallel to the Blythe-Niland transmission line until reaching the SCE 500-kV D-PV1 transmission line; west generally adjacent to the SCE D-PV1 right-of-way; north crossing I-10 near the Hayfield exit, then north and east to the Julian Hinds Substation.

4. Transmission line structures will be concrete, single-pole structures, spaced approximately every 850 feet along the construction corridor, and will be accessed by spur roads constructed from existing utility access roads. In addition to concrete poles and associated spur roads, there will also be temporary transmission splice areas, tensioning (pull) sites, and crossing structures. The transmission lines will be constructed using conventional cranes for pole installation. Construction and operation will require a 95-foot-wide right-of-way (ROW) on BLM lands and 100-foot ROW on private lands. Impacts include building spur roads to access pole installation sites across ephemeral washes. It will also include temporary wash disturbances during pulling, tensioning, and splicing activities, and the installation within washes of some flood-resistant pole structures where no alternative meets maximum span widths.

5. There are approximately 120 unnamed ephemeral or intermittent drainages of the Southern Mojave Watershed and 25 unnamed ephemeral or intermittent drainages of the Hayfield Dry Lake Watershed. The project proposes to impact approximately 120 of the 145 drainages, for a total cumulative impact of 20.5 acres to jurisdictional streambed. Permanent transmission poles may be installed in ephemeral washes if no other engineering solution can be devised. Poles will be constructed to be flood resistant.

6. Project work requires vegetation removal. A maximum of 349 mature microphyll woodland trees will be removed during construction of the transmission lines.

### Mitigation, monitoring, and Reporting

7. The Department is unable to authorize incidental take of "fully protected" species (Fish and Game Code Sections 3511, 4700, 5050 and 5515) when activities are proposed in areas inhabited by those species. The Department has informed the Operator that they must avoid take of any fully protected species in carrying out the Blythe Energy Project.

8. To compensate for the permanent impacts to the 20.5 acres of desert wash microphyll woodland within watercourses, the Operator agrees to mitigate for this loss at a ratio of 3:1 (totaling 61.5 acres). All other areas of desert wash microphyll woodland impacted are within the Chuckwalla Desert Wildlife Management Area and therefore, are required to be compensated for at a 5:1 ratio to desert tortoise habitat through financing land purchases (see above). If this land purchased for the desert tortoise mitigation also includes at least 61.5 acres of desert wash microphyll woodland, it may count as the necessary mitigation for the impacts to the 20.5. Otherwise, additional mitigation lands must be purchased to offset the difference. The purchase of these mitigation lands shall be approved by the Department.

9. To ensure the prevention of the introduction of non-native plants to the area, the Operator agrees to take the necessary measures that the digging equipment (especially the heavy mechanized equipment) be free from any outside dirt clods that may carry the seeds of non-native plants. All equipment should be hosed off before being introduced to the site.

### Project Construction

10. This Agreement does not authorize take of state and/or federally listed threatened or endangered species. Be advised, if activities are likely to result in take of listed species, the Operator is required to obtain the appropriate State and Federal permits, pursuant to the California Endangered Species Act and the Federal Endangered Species Act.

11. The Operator shall not allow water containing mud, silt or other pollutants from aggregate washing or other activities to enter a lake or flowing stream or placed in locations that may be subjected to high storm flows.

12. The Operator shall comply with all litter and pollution laws. All contractors, subcontractors and employees shall also obey these laws and it shall be the responsibility of the Operator to ensure

## STREAMBED ALTERATION AGREEMENT FOR NOTIFICATION NUMBER: 1600-2005-0022-R6

compliance.

13. Spoil sites shall not be located within a stream/lake, where spoil shall be washed back into a stream/lake, or where it will cover aquatic or riparian vegetation.

14. Raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic life, resulting from project related activities shall be prevented from contaminating the soil and/or entering the waters of the state. These materials, placed within or where they may enter a stream/lake, by Operator or any party working under contract, or with the permission of the Operator shall be removed immediately.

15. No broken concrete, debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or washings thereof, oil or petroleum products or other organic or earthen material from any construction, or associated activity of whatever nature shall be allowed to enter into or placed where it may be washed by rainfall or runoff into, waters or the State. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any stream or lake.

16. No equipment maintenance shall be done near any stream channel where petroleum products or other pollutants from the equipment may enter these areas under any flow.

17. The Operator shall notify the Department, in writing, at least five (5) days prior to initiation of construction (project) activities and at least five (5) days prior to completion of construction (project) activities. Notification shall be sent to the Department at Eastern Inland Deserts Region 4665 Lampson Ave, Suite J, Los Alamitos, CA 90720, Attn: Streambed Team. Please reference **SAA # 1600-2005-0022-R6**.

18. The Operator shall provide a copy of this Agreement to all contractors, subcontractors, and the Applicant's project supervisors. Copies of the Agreement shall be readily available at work sites at all times during periods of active work and must be presented to any Department personnel or personnel from another agency upon demand.

19. The Department reserves the right to enter the project site at any time to ensure compliance with terms/conditions of this Agreement.

### Extension of Agreement

20. The Operator shall request an extension of this agreement prior to its termination. One extension may be granted for up to 12 months from the date of termination of the agreement and is subject to Departmental approval. The extension request and fees shall be submitted to the Department's Region 6 Office at the address in #17 above. If the Operator fails to request the extension prior to the agreement's termination then the Operator shall submit a new notification with fees and required information to the Department. Any activities conducted under an expired agreement are a violation of Fish and Game Code Section 1600 et. seq.

### Suspension of Permit

21. The Department reserves the right to suspend or cancel this Agreement, after giving notice to the Operator, if the Department determines that the Operator has breached any of the terms or conditions of the Agreement, or for other reasons, including but not limited to the following:

- a. The Department determines that the information provided by the Applicant in support of the Notification/Agreement is incomplete or inaccurate;
- b. The Department obtains new information that was not known to it in preparing the terms and conditions of the Agreement;
- c. The project or project activities as described in the Notification/Agreement have changed;
- d. The conditions affecting fish and wildlife resources change or the Department determines that project activities will result in a substantial adverse effect on the environment.

**STREAMBED ALTERATION AGREEMENT FOR NOTIFICATION NUMBER: 1600-2005-0022-R6**

**Concurrence (1600-2005-0022-R6)**

**In WITNESS WHEREOF, the parties below have executed this Lake or Streambed Alteration Agreement Number 1600-2005-0022-R6 as indicated below:**

Date \_\_\_\_\_

6-21-2007

*L. H. Bailey*


Gary Palo  
Blythe Energy, LLC

Date \_\_\_\_\_

Prepared by:  
James Sheridan  
Environmental Scientist  
Department of Fish and Game

Date \_\_\_\_\_

Date 2/21/08

  
Curt Taucher, Regional Manager

**Curt Taucher, Regional Manager**  
Department of Fish and Game  
Inland Deserts Region



TETRA TECH EC, INC.

November 14, 2008

Mary Dyas  
Compliance Project Manager  
California Energy Commission  
1516 Ninth Street  
Sacramento, CA 95814  
(916) 651-8891

**RE:** Blythe Energy Project Transmission Line (99-AFC-8C) BLM Approval Notification for the Construction Access Road Plan

Dear Ms. Dyas:

On behalf of Blythe Energy, LLC, we are sending you a copy of the BLM approval notification for the Construction Access Road Plan for your records. Two hard copies of the Construction Access Road Plan were sent to the CEC on July 28<sup>th</sup> 2008. Enclosed please find a PDF of the emailed BLM approval notification for the Construction Access Road Plan for the Blythe Energy Project Transmission Line (99-AFC-8c).

Please call me at 425.241.0415 or Jenna Farrell at 916.853.4575 with any questions.

Sincerely,  
TETRA TECH EC, Inc.

A handwritten signature in black ink, appearing to read 'Penny Eckert', is written over a light gray circular background.

Penny Jennings Eckert, Ph.D.  
Project Manager

cc: Gary Hickey, Blythe Energy  
Mike Pappalardo, Blythe Energy  
enc. BLM email copy,





Claude\_Kirby@ca.blm.gov

11/12/2008 09:02 AM

To Jenna.Farrell@tteci.com

cc

bcc

Subject Re: Fw: BEPTL Access Road Plan

History:



This message has been forwarded.

Jenna Farrell

Please allow this e-mail to serve as the approval and acceptance of the submitted access road plan by the Bureau of Land Management, for the Blythe Energy Transmission Line project . If we may be of further assistance on this project please let us know.

Thank You

Claude Kirby  
Realty Specialist  
U.S. Department of Interior  
Bureau of Land Management  
P.O. Box 581260 690 W. Garnet Ave.  
N. Palm Springs, CA 92258  
(760) 251-4850  
(760) 251-4899

## **APPENDIX C**

### **Desert Dry Washes Potentially Impacted by the Blythe Energy Project Transmission Line**

### Appendix C.Desert Dry Washes Potentially Impacted by the Blythe Energy Project Transmission Line

Location						Potential Impact Dimensions					Native Vegetation					
Unique ID	Mile ID	Type	DPV Tower	GPS LAT	GPS LONG	Total Bed Width (ft)	Total Bed Length (ft)	Acreage	Avg Bank Height (ft)	Indicator	# trees >4" diam	Height (ft)	Name	#	Name	#
<b>All features are ephemeral washes, flowing only during storm events</b>																
<b>Tributary to South Mojave Watershed</b>																
147	21.3	Pole	137-1.5	33.59312	114.96911	25	160	0.092	1.5	1,7	3	25	PV	3		
148	21.5	Pole	137-2.5	33.59332	114.97493	4	25	0.002	1	1,7						
149	21.8	Pole	137-3.5	33.59356	114.98629	40	160	0.147	0.5	1,7						
157	23	Pole	139-1	33.59454	114.9999	25	185	0.106	0.5	1,4,7	2	10	IW	2		
159	23.3	Pole	139-2	33.59493	115.00563	5	36	0.004	0.75	1,4,7						
162	23.7	Pole	139-3	33.59492	115.01112	40	178	0.163	0.75	1,4,7						
170	25.1	Pole	141-1.5	33.59585	115.03621	12	165	0.045	0.25	1,4,7	1	20	IW	1		
172	25.5	Pole	141-2.5	33.59558	115.04169	10	90	0.021	0.5	1,4,7						
173	25.6	Pole	141-3	33.59598	115.04462	12	25	0.007	0.5	1,4,7	1	15	IW	1		
174	25.7	Pole	141-3	33.5963	115.04551	25	100	0.057	2	1,4,7						
P17	25.7	Pull	141-3	33.59628	115.04601	50	50	0.057	0.5	1,4,7	2	12	IW	2		
175	25.9	Pole	142-1	33.59642	115.05035	4	10	0.001	0.5	1,4,7						
176	26.1	Pole	142-1.5	33.59633	115.05351	5	54	0.006	0.75	1,4,7						
177	26.3	Pole	142-2	33.59652	115.05625	4	35	0.003	0.75	1,4,7						
178	26.5	Pole	142-2.5	33.59631	115.05898	8	60	0.011	0.5	1,4,7	2	12	IW	2		
182	27	Pole	143-1.5	33.59681	115.07033	25	144	0.083	1	1,4,7	1	12	IW	1		
S9	27.1	Splice	143-1.5	33.5971	115.07083	4	95	0.009	0.75	1,4,7						
189	28.2	Pole	144-2	33.5976	115.09012	25	40	0.023	0.5	1,4,7	2	15	IW	2		
P19	28.3	Pull	144-2.5	33.59701	115.09377	35	90	0.072	0.75	1,4,7						
191	28.5	Pole	144-3	33.59754	115.0949	8	30	0.006	1	1,4,7						
P18	28.6	Pull	144-3	33.59789	115.09558	50	70	0.080	1.5	1,4,7	1	12	IW	1		
193	28.7	Pole	144-3.5	33.59883	115.0961	6	45	0.006	1	1,4,7						
195	29	Pole	145-2	33.60225	115.10203	5	50	0.006	0.5	1,4,7	1	20	IW	1		
196	29.2	Pole	145-2.5	33.60281	115.1045	5	234	0.027	1	1,4,7						
202	30	Pole	146-1.5	33.61074	115.11671	6	20	0.003	1	1,4,7						
215	31.9	Pole	148-1	33.62627	115.14356	6	30	0.004	0.5	1,4,7	1	10	IW	1		
216	32	Pole	148-1.5	33.62761	115.14536	25	111	0.064	0.5	1,4,7						
S11	32.1	Splice	148-2	33.62837	115.14661	95	48	0.105	1	1,4,7	1	15	IW	1		
S11	32.1	Splice	148-2	33.62837	115.14661	95	36	0.079	0.5	1,4,7						
221	32.8	Pole	149-1	33.63348	115.15576	12	25	0.007	0.5	1,4,7	1	15	IW	1		

Location						Potential Impact Dimensions					Native Vegetation					
Unique ID	Mile ID	Type	DPV Tower	GPS LAT	GPS LONG	Total Bed Width (ft)	Total Bed Length (ft)	Acreage	Avg Bank Height (ft)	Indicator	# trees >4" diam	Height (ft)	Name	#	Name	#
222	32.9	Pole	149-1	33.63474	115.15778	12	95	0.026	0.25	1,4,7						
226	33.5	Pole	149-3	33.63946	115.16615	25	90	0.052	0.75	1,4,7	6	10	SM	6		
P21	33.6	Pull	149-3	33.63999	115.16712	50	140	0.161	0.75	1,4,7	3	10	SM	3		
230	34	Pole	150-2	33.64423	115.17435	6	90	0.012	0.5	1,4,7	1	15	IW	1		
232	34.3	Pole	150-3	33.64659	115.1784	18	95	0.039	0.5	1,4,7						
234	34.6	Pole	150-4	33.64898	115.1826	25	95	0.055	1	1,4,7						
235	34.8	Pole	150-4	33.6502	115.18463	25	95	0.055	1	1,4,7	1	12	IW	1		
S12	34.85	Splice	151-1	33.65066	115.18539	95	150	0.327	1	1,4,7	3	18	IW	3		
237	35	Pole	151-1	33.65228	115.1882	7	50	0.008	1	1,4,7	1	15	IW	1		
238	35.2	Pole	151-1	33.65356	115.19038	2.5	20	0.001	1	1,4,7						
240	35.4	Pole	151-2	33.65474	115.19264	4	120	0.011	1	1,4,7	1	12	IW	1		
242	35.8	Pole	151-3	33.65855	115.19904	25	100	0.057	0.5	1,4,7						
P22	36.3	Pull	152-2	33.66292	115.20651	9	50	0.010	0.5	1,4,7	1	12	IW	1		
	36.6	Crossing	152-3	33.66485	115.21023	100	100	0.230	0.5	1,4,7	3	8	IW	3		
251	37.1	Pole	153-1	33.66695	115.21863	4	60	0.006	0.75	1,4,7						
252	37.3	Pole	153-2	33.66768	115.22175	5	40	0.005	0.75	1,4,7	2	10	IW	2		
253	37.5	Pole	153-2	33.66833	115.2246	4	100	0.009	0.75	1,4,7	1	11	IW	1		
S13	37.7	Splice	153-3	33.67009	115.22897	20	90	0.041	2	1,4,7	2	11	IW	2		
255	37.8	Pole	153-3	33.67032	115.2303	8	50	0.009	1	1,4,7	1	15	IW	1		
257	38.1	Pole	154-1.5	33.67229	115.23537	12	12	0.003	1	1,4,7	1	18	IW	1		
258	38.3	Pole	154-2	33.67296	115.23849	12	270	0.074	4	1,4,7	3	18	IW	3		
259	38.5	Pole	154-2.5	33.67301	115.24141	4	20	0.002	1	1,4,7	1	9	IW	1		
259	38.5	Pole	154-2.5	33.67353	115.24118	8	20	0.004	0.5	1,4,7						
259	38.5	Pole	154-2.5	33.67391	115.24106	6	40	0.006	1	1,4,7						
260	38.6	Pole	154-3	33.67369	115.24402	14	138	0.044	0.5	1,4,7						
261	38.8	Pole	154-3.6	33.67451	115.2464	10	60	0.014	0.5	1,4,7						
262	38.9	Pole	155-1	33.67511	115.24915	15	25	0.009	0.25	1,4,7						
263	39.1	Pole	155-1	33.67604	115.25167	25	75	0.043	0.5	1,4,7	1	12	IW	1		
264	39.3	Pole	155-2	33.67651	115.25426	4	20	0.002	1	1,4,7						
265	39.4	Pole	155-2	33.67744	115.25686	4	30	0.003	0.75	1,4,7	2	12	IW	2		
266	39.6	Pole	155-3	33.67787	115.25975	4	20	0.002	0.75	1,4,7						
267	39.8	Pole	155-3	33.67873	115.26195	8	330	0.061	1	1,4,7	2	25	IW	2		
268	39.9	Pole	156-1	33.67915	115.26503	55	25	0.032	3	1,4,7						
270	40.2	Pole	156-2	33.68055	115.26987	4	25	0.002	0.25	1,4,7	2	15	OC	1	IW	1

Location						Potential Impact Dimensions					Native Vegetation					
Unique ID	Mile ID	Type	DPV Tower	GPS LAT	GPS LONG	Total Bed Width (ft)	Total Bed Length (ft)	Acreage	Avg Bank Height (ft)	Indicator	# trees >4" diam	Height (ft)	Name	#	Name	#
270	40.2	Pole	156-2	33.68109	115.26963	10	12	0.003	0.25	1,4,7						
271	40.3	Pole	156-2.5	33.68134	115.27245	25	300	0.172	0.5	1,4,7	2	12	IW	2		
S14	40.6	Splice	156-3	33.68253	115.27734	95	150	0.327	0.5	1,4,7	2	20	IW	2		
273	40.7	Pole	156-3.5	33.68277	115.27811	6	30	0.004	0.5	1,4,7	1	10	IW	1		
274	40.9	Pole	157-1	33.68346	115.28055	4	25	0.002	0.25	1,4,7						
275	41	Pole	157-1	33.68419	115.28344	25	390	0.224	0.5	1,4,7	6	20	IW	6		
276	41.2	Pole	157-2	33.68487	115.28623	20	20	0.009	0.5	1,4,7	1	12	IW	1		
277	41.4	Pole	157-2	33.68579	115.2888	6	350	0.048	0.75	1,4,7	1	8	IW	1		
278	41.5	Pole	157-3	33.68624	115.2914	6	25	0.003	0.5	1,4,7	1	8	IW	1		
281	41.95	Pole	158-1	33.68878	115.2994	25	400	0.230	15	1,4,7	4	15	PV	2	IW	2
282	42.2	Pole	158-2	33.68932	115.30291	6	25	0.003	2	1,4,7						
284	42.5	Pole	158-3	33.69057	115.30762	12	25	0.007	2	1,4,7	1	12	IW			
285	42.6	Pole	158-3.5	33.69172	115.31016	10	50	0.011	1.5	1,4,7	1	8	IW			
291	43.5	Pole	159-3	33.69609	115.32401	25	450	0.258	3	1,4,7	5	20	IW	4	PV	1
S15	43.51	Splice	159-3	33.69504	115.32428	25	200	0.115	3	1,4,7	8	20	IW	6	PV	2
294	43.9	Pole	161-1	33.69664	115.33157	25	15	0.009	0.5	1,4,7						
295	44.1	Pole	160-1.7	33.69738	115.33339	12	50	0.014	12	1,4,7	3	20	IW	3		
295	44.1	Pole	160-1.7	33.69696	115.33253	12	210	0.058	12	1,4,7						
298	44.7	Pole	160-3.5	33.70087	115.34396	6	12	0.002	2	1,4,7						
299	44.8	Pole	--	33.70086	115.3475	25	60	0.034	6	1,4,7	3	15	IW	3		
299	44.8	Pole	--	33.70158	115.34718	25	40	0.023	6	1,4,7						
303	45.6	Pole	--	33.70436	115.36078	6	135	0.019	0.5	1,4,7						
304	45.8	Pole	--	33.70542	115.36414	25	70	0.040	2	1,4,7	4	15	IW	2	PV	1
305	46	Pole	--	33.70542	115.36756	25	25	0.014	12	1,4,7	2	25	IW	2		
305	46	Pole	--	33.70542	115.36756	15	25	0.009	3	1,4,7						
307	46.4	Pole	--	33.70702	115.374	30	9	0.006	3	1,4,7						
308	46.7	Pole	--	33.70762	115.37772	27	25	0.015	1	1,4,7	2	25	IW	2		
312	47.5	Pole	--	33.70836	115.39202	6	150	0.021	0.5	1,4,7						
P27	47.6	Pull	--	33.70736	115.39522	6	100	0.014	0.25	1,4,7						
P27	47.6	Pull	--	33.70735	115.39577	6	50	0.007	0.75	1,4,7						
313	47.6	Pole	--	33.70856	115.39555	4	75	0.007	0.5	1,4,7	2	18	IW	2		
314	47.9	Pole	--	33.70792	115.39706	15	150	0.052	0.75	1,4,7						
315	48.1	Pole	--	33.70365	115.40093	15	630	0.217	0.5	1,4,7	3	18	IW	2	SM	1
316	48.2	Pole	--	33.70215	115.40436	15	280	0.096	0.75	1,4,7	8	18	IW	7	PV	1

Location						Potential Impact Dimensions					Native Vegetation					
Unique ID	Mile ID	Type	DPV Tower	GPS LAT	GPS LONG	Total Bed Width (ft)	Total Bed Length (ft)	Acreage	Avg Bank Height (ft)	Indicator	# trees >4" diam	Height (ft)	Name	#	Name	#
317	48.5	Pole	--	33.70043	115.40654	15	390	0.134	1	1,4,7	4	12	IW	3	PV	1
318	48.7	Pole	--	33.69887	115.40886	15	275	0.095	0.75	1,4,7	2	18	IW	2		
319	48.9	Pole	--	33.69678	115.41134	15	150	0.052	0.75	1,4,7						
321	49.2	Pole	164-3	33.69444	115.41716	6	25	0.003	0.5	1,4,7	1	20	IW			
323	49.6	Pole	165-2	33.69381	115.42223	6	20	0.003	1	1,4,7						
325	49.8	Pole	165-3	33.69367	115.42684	8	30	0.006	1.5	1,4,7	3	12	IW	3		
S17	50.2	Splice	165-4	33.69318	115.43507	6	120	0.017	1	1,4,7	3	10	IW	2	OC	1
331	50.8	Pole	166-2	33.69243	115.44335	4	60	0.006	0.75	1,4,7	1	12	IW	1		
332	50.9	Pole	166-2	33.6923	115.4463	10	210	0.048	0.5	1,4,7	2	10	IW	2		
334	51.3	Pole	166-3	33.69199	115.45192	25	75	0.043	0.25	1,4,7	1	12	PV	1		
336	51.6	Pole	167-2	33.69086	115.46024	10	50	0.011	1.5	1,4,7						
338	51.9	Pole	167-2	33.69114	115.46333	8	25	0.005	0.5	1,4,7						
341	52.4	Pole	168-1	33.6903	115.47084	12	25	0.007	3	1,4,7	2	12	IW	2		
342	52.7	Pole	168-2	33.68988	115.47597	25	25	0.014	1	1,4,7	3	13	IW	2	OC	1
354	54.5	Pole	170-1.5	33.6834	115.50677	39	25	0.022	5	1,4,7	1	12	IW	1		
P31	54.6	Pull	170-2	33.68315	115.5076	80	24	0.044	6	1,4,7	1	18	IW	1		
356	54.8	Pole	170-2.5	33.68224	115.51196	30	50	0.034	3	1,4,7	4	10	IW			
357	54.9	Pole	170-3	33.68167	115.51424	45	25	0.026	2	1,4,7	3	12	IW	2	OC	1
358	55.1	Pole	170-3.5	33.68105	115.51704	25	140	0.080	5	1,4,7	3	12	IW	3		
360	55.4	Pole	171-1.5	33.68004	115.52195	25	78	0.045	1	1,4,7	5	12	IW	5		
361	55.6	Pole	171-2	33.67972	115.52441	30	25	0.017	4	1,4,7	1	12	IW	1		
S19	55.9	Splice	171-4	33.67808	115.53181	28	215	0.138	2	1,4,7	9	18	IW	7	OC	2
Tributary to Hayfield Watershed																
	57.9	Crossing	173-4	33.67098	115.56349	100	100	0.230	3	1,4,7	15	15	SM	15		
S20	58.8	Splice	174-2	33.66809	115.57764	10	200	0.046	1	1,4,7	4	10	OC	4		
384	58.9	Pole	174-3	33.66777	115.58098	20	183	0.084	5	1,4,7						
387	59.4	Pole	175-1.5	33.66682	115.58968	27	75	0.046	3	1,4,7						
389	59.8	Pole	175-2.5	33.66658	115.5955	25	162	0.093	0.25	1,4,7						
390	59.9	Pole	175-3	33.66637	115.59837	25	185	0.106	0.75	1,4,7	2	18	AC	2		
P33	60.2	Pull	176-1	33.66605	115.60285	6	50	0.007	0.5	1,4,7						
392	60.3	Pole	176-1	33.66582	115.60405	25	198	0.114	0.5	1,4,7						
395	60.8	Pole	176-2.5	33.66536	115.61352	4	25	0.002	0.5	1,4,7						
396	60.9	Pole	176-3	33.6651	115.61633	5	25	0.003	1	1,4,7						
402	61.7	Pole	177-3	33.66381	115.6296	12	25	0.007	0.5	1,4,7						

Location						Potential Impact Dimensions					Native Vegetation					
Unique ID	Mile ID	Type	DPV Tower	GPS LAT	GPS LONG	Total Bed Width (ft)	Total Bed Length (ft)	Acreage	Avg Bank Height (ft)	Indicator	# trees >4" diam	Height (ft)	Name	#	Name	#
404	62	Pole	177-4	33.66292	115.63479	40	25	0.023	3	1,4,7						
407	62.5	Pole	178-1.5	33.66196	115.64248	4	50	0.005	0.75	1,4,7						
P35	62.95	Pull	--	33.66208	115.65224	50	140	0.161	4	1,4,7	2	8	AC	2		
415	63.4	Pole	--	33.66705	115.65372	15	30	0.010	0.33	1,4,7	4	12	PV	4		
S22	64.4	Splice	--	33.68306	115.65608	12	100	0.028	1	1,4,7	2	18	IW	1	OC	1
420	64.5	Pole	--	33.68385	115.65652	25	165	0.095	1.5	1,4,7						
425	65.25	Pole	--	33.69365	115.65581	6	25	0.003	0.5	1,4,7	2	15	IW	1	PV	1
426	65.6	Pole	--	33.69244	115.65156	8	180	0.033	1	1,4,7	1	13	OC	1		
427	65.75	Pole	--	33.69939	115.64974	8	180	0.033	1	1,4,7						
429	65.9	Pole	--	33.70049	115.64807	6	180	0.025	0.75	1,4,7	2	12	IW	1	OC	1
S23	65.9	Splice	--	--	--	100	200	0.459	1	1,4,7	4	12	IW	2	OC	2
430	66	Pole	--	33.70129	115.64206	12	177	0.049	3	1,4,7	5	10	IW	4	PV	1
432	66.3	Pole	--	33.70348	115.64185	25	188	0.108	2	1,4,7	1	8	PV	1		
433	66.5	Pole	--	33.7041	115.64066	25	177	0.102	2	1,4,7	4	15	OC	3	PV	1
434	66.7	Pole	--	33.70509	115.63857	12	540	0.149	2	1,4,7	8	12	OC	3	PV	5
<b>TOTALS</b>						<b>Maximum acres</b>		7.652	<b>Maximum trees</b>		<b>222</b>					

**Vegetation Key (Tree Common Names)**

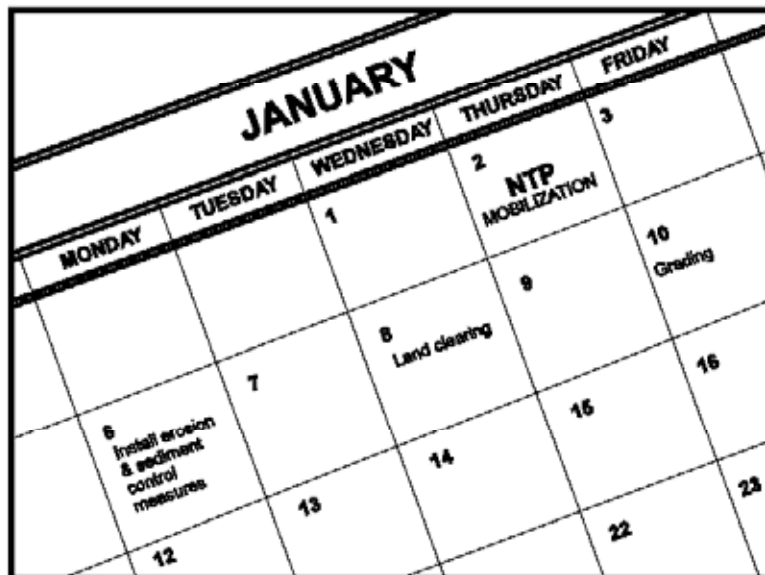
AC- Acacia  
 IW- Ironwood  
 OC- Ocotillo  
 PV- Palo Verde  
 SM- Smoke Tree

**Indicator**

1. Clear scour natural line or water mark impressed on the bank
2. Destruction of terrestrial vegetation or the presence of litter and debris
3. Continuous well-developed upland vegetation in channel
4. Recent bank erosion
5. Presence of native riparian species in channel
6. Shelving
7. Changes in the character of the soil; mud cracking, surface staining (faint to dark reddish brown stains from ponded water), algal matting, crusts, flakes and other types of bacteria undergo ecological succession (response to variations in moisture, sediment deposition)
8. Braided channel; active channel(s) w/ flood terraces adjacent to active braids that are several feet higher than the active stream.
9. Alluvial fans/braids are confined to the feeder channel

## **APPENDIX D**

### **Standard CalTrans BMPs Referenced in Document**



Standard Symbol

### BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

**Definition and Purpose** This best management practice (BMP) involves developing, for every project, a schedule that includes sequencing of construction activities with the implementation of construction site BMPs such as temporary soil stabilization (erosion control) and temporary sediment controls measures. The purpose is to reduce the amount and duration of soil exposed to erosion by wind, rain, runoff and vehicle tracking, and to perform the construction activities and control practices in accordance with the planned schedule.

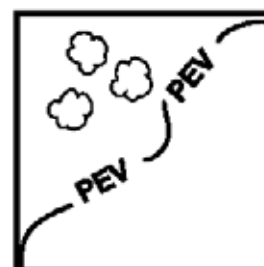
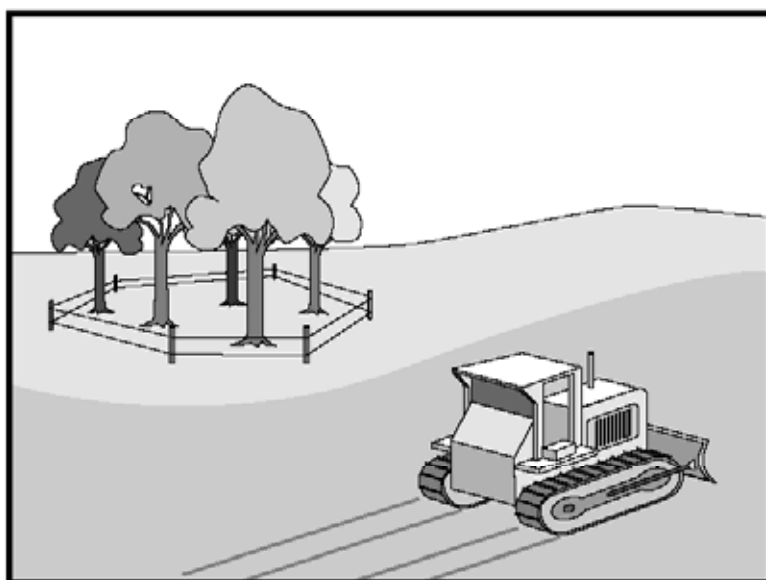
**Appropriate Applications** Construction sequencing shall be scheduled to minimize land disturbance for all projects during the rainy and non-rainy season. Appropriate BMPs shall be implemented during both rainy and non-rainy seasons.

**Limitations** None identified.

- Standards and Specifications**
- Developing a schedule and planning the project are the very first steps in an effective storm water program. The schedule shall clearly show how the rainy season relates to soil-disturbing and re-stabilization activities. The construction schedule shall be incorporated into the SWPPP or WPCP.
  - The schedule shall include detail on the rainy season implementation and deployment of:
    - Temporary soil stabilization BMPs.
    - Temporary sediment control BMPs.
    - Tracking control BMPs.
    - Wind erosion control BMPs.

- Non-storm water BMPs.
- Waste management and materials pollution control BMPs.
- Schedule shall also include dates for significant long-term operations or activities that may have planned non-storm water discharges such as dewatering, sawcutting, grinding, drilling, boring, crushing, blasting, painting, hydro-demolition, mortar mixing, bridge cleaning, etc.
- Schedule work to minimize soil disturbing activities during the rainy season.
- Develop the sequencing and timetable for the start and completion of each item such as site clearing and grubbing, grading, excavation, paving, pouring foundations, installing utilities, etc., to minimize the active construction area during the rainy season.
- Schedule major grading operations for the non-rainy season when practical.
- Stabilize non-active areas within 14 days from the cessation of soil-disturbing activities or one day prior to the onset of precipitation, whichever occurs first.
- Monitor the weather forecast for rainfall.
- When rainfall is predicted, adjust the construction schedule to allow the implementation of soil stabilization and sediment controls and sediment treatment controls on all disturbed areas prior to the onset of rain.
- Be prepared year-round to deploy soil stabilization and sediment control practices as required by Section 2 of this Manual. Erosion may be caused during dry seasons by unseasonal rainfall, wind, and vehicle tracking. Keep the site stabilized year-round, and retain and maintain rainy season sediment trapping devices in operational condition.
- Sequence trenching activities so that most open portions are closed before new trenching begins.
- Incorporate staged seeding and re-vegetation of graded slopes as work progresses.
- Consider scheduling when establishing permanent vegetation (appropriate planting time for specified vegetation).
- Apply permanent erosion control to areas deemed substantially complete during the project's defined seeding window.

- Maintenance and Inspection
- Verify that work is progressing in accordance with the schedule. If progress deviates, take corrective actions.
  - Amend the schedule when changes are warranted or when directed by the Resident Engineer (RE).
  - The Special Provisions require annual submittal of a rainy season implementation schedule. Amend the schedule prior to the rainy season to show updated information on the deployment and implementation of construction site BMPs.



Standard Symbol

## BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

**Definition and Purpose** Preservation of existing vegetation is the identification and protection of desirable vegetation that provides erosion and sediment control benefits.

## Appropriate Applications

- Preserve existing vegetation at areas on a site where no construction activity is planned or will occur at a later date. Specifications for preservation of existing vegetation can be found in Standard Specifications, Section 7-1.11.
- On a year-round basis, temporary fencing shall be provided prior to the commencement of clearing and grubbing operations or other soil-disturbing activities in areas.
- Clearing and grubbing operations should be staged to preserve existing vegetation.

**Limitations** Protection of existing vegetation requires planning, and may limit the area available for construction activities.

## Standards and Specifications

### Timing

- Preservation of existing vegetation shall be provided prior to the commencement of clearing and grubbing operations or other soil-disturbing activities in areas identified on the plans to be preserved, especially on areas designated as Environmentally Sensitive Areas (ESAs).
- Preservation of existing vegetation shall conform to scheduling requirements set forth in the special provisions.

### Design and Layout

- Mark areas to be preserved with temporary fencing made of orange polypropylene that is stabilized against ultraviolet light. The temporary fencing shall be at least 1 meter (3.2. ft) tall and shall have openings not larger than 50 mm by 50 mm (2 in by 2 in).

- Fence posts shall be either wood or metal, at the Contractor's discretion, as appropriate for the intended purpose. The post spacing and depth shall be adequate to completely support the fence in an upright position.
- Minimize the disturbed areas by locating temporary roadways to avoid stands of trees and shrubs and to follow existing contours to reduce cutting and filling.
- Consider the impact of grade changes to existing vegetation and the root zone.

## ***Installation***

- Construction materials, equipment storage, and parking areas shall be located where they will not cause root compaction.
- Keep equipment away from trees to prevent trunk and root damage.
- Maintain existing irrigation systems.
- Employees and subcontractors shall be instructed to honor protective devices. No heavy equipment, vehicular traffic, or storage piles of any construction materials shall be permitted within the drip line of any tree to be retained. Removed trees shall not be felled, pushed, or pulled into any retained trees. Fires shall not be permitted within 30 m (100 ft) of the drip line of any retained trees. Any fires shall be of limited size, and shall be kept under continual surveillance. No toxic or construction materials (including paint, acid, nails, gypsum board, chemicals, fuels, and lubricants) shall be stored within 15 m (50 ft) of the drip line of any retained trees, nor disposed of in any way which would injure vegetation.

## ***Trenching and Tunneling***

- Trenching shall be as far away from tree trunks as possible, usually outside of the tree drip line or canopy. Curve trenches around trees to avoid large roots or root concentrations. If roots are encountered, consider tunneling under them. When trenching and/or tunneling near or under trees to be retained, tunnels shall be at least 450 mm (18 in) below the ground surface, and not below the tree center to minimize impact on the roots.
- Tree roots shall not be left exposed to air; they shall be covered with soil as soon as possible, protected, and kept moistened with wet burlap or peat moss until the tunnel and/or trench can be completed.
- The ends of damaged or cut roots shall be cut off smoothly.
- Trenches and tunnels shall be filled as soon as possible. Careful filling and tamping will eliminate air spaces in the soil which can damage roots.
- Remove any trees intended for retention if those trees are damaged seriously enough to affect their survival. If replacement is desired or required, the new tree shall be of similar species, and at least 50 mm (2 in) caliper, unless

otherwise required by the contract documents.

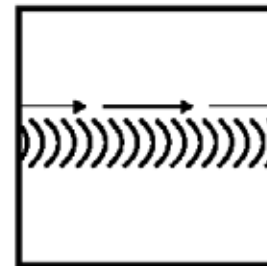
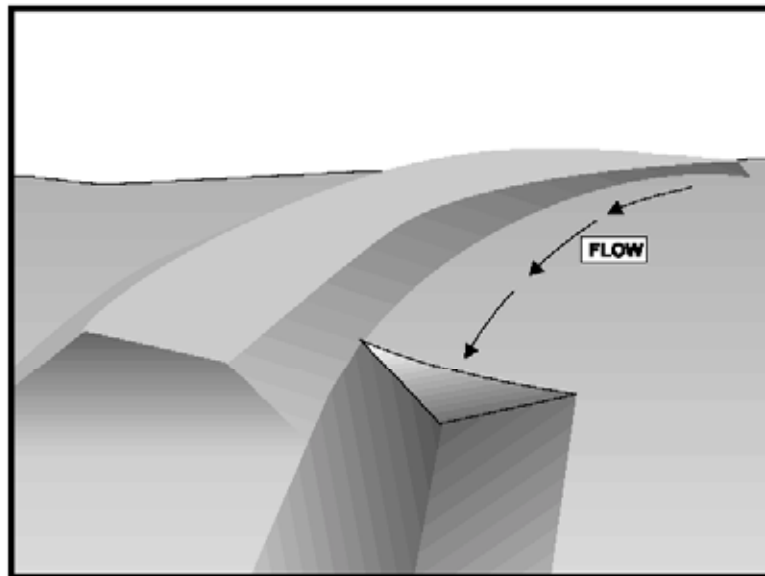
- After all other work is complete, fences and barriers shall be removed last. This is because protected trees may be destroyed by carelessness during the final cleanup and landscaping.

**Maintenance and Inspection** During construction, the limits of disturbance shall remain clearly marked at all times. Irrigation or maintenance of existing vegetation shall conform to the requirements in the landscaping plan. If damage to protected trees still occurs, maintenance guidelines described below shall be followed:

- Serious tree injuries shall be attended to by an arborist.
- During construction, District Environmental shall be contacted to ensure that ESAs are protected.

# Earth Dikes/Drainage Swales and Lined Ditches

**SS-9**



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## BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

### Definition and Purpose

These are structures that intercept, divert and convey surface run-on, generally sheet flow, to prevent erosion.

### Appropriate Applications

- Earth dikes/drainage swales and lined ditches may be used to:
  - Convey surface runoff down sloping land.
  - Intercept and divert runoff to avoid sheet flow over sloped surfaces.
  - Divert and direct runoff towards a stabilized watercourse, drainage pipe or channel.
  - Intercept runoff from paved surfaces.
- Earth dikes/drainage swales and lined ditches also may be used:
  - Below steep grades where runoff begins to concentrate.
  - Along roadways and facility improvements subject to flood drainage.
  - At the top of slopes to divert run-on from adjacent or undisturbed slopes.
  - At bottom and mid-slope locations to intercept sheet flow and convey concentrated flows.
- This BMP may be implemented on a project-by-project basis with other BMPs when determined necessary and feasible by the Resident Engineer (RE).

# Earth Dikes/Drainage Swales and Lined Ditches

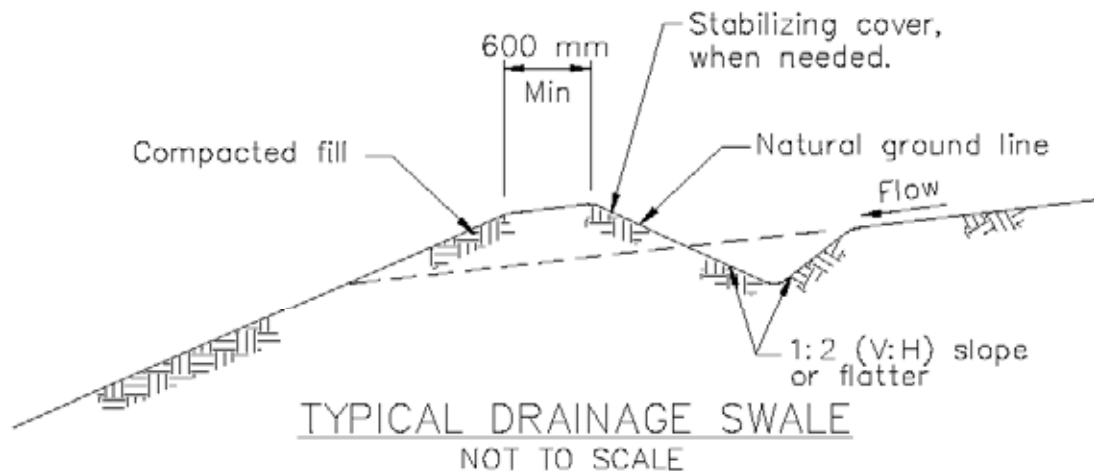
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**SS-9**

- |                              |   |
|------------------------------|---|
| Limitations                  | <ul style="list-style-type: none"><li>■ Earth dikes/drainage swales and lined ditches are not suitable as sediment trapping devices.</li><li>■ May be necessary to use other soil stabilization and sediment controls, such as check dams, plastics, and blankets, to prevent scour and erosion in newly graded dikes, swales and ditches.</li></ul>  |
| Standards and Specifications | <ul style="list-style-type: none"><li>■ Care must be applied to correctly size and locate earth dikes, drainage swales and lined ditches. Excessively steep, unlined dikes and swales are subject to erosion and gully formation.</li><li>■ Conveyances shall be stabilized.</li><li>■ Use a lined ditch for high flow velocities.</li><li>■ Select flow velocity based on careful evaluation of the risks due to erosion of the measure, soil types, over topping, flow backups, washout, and drainage flow patterns for each project site.</li><li>■ Compact any fills to prevent unequal settlement.</li><li>■ Do not divert runoff from the highway right-of-way onto other property.</li><li>■ When possible, install and utilize permanent dikes, swales and ditches early in the construction process.</li><li>■ Provide stabilized outlets. Refer to SS-10, "Outlet Protection/Velocity/Dissipation Devices."</li></ul> |
| Maintenance and Inspections  | <ul style="list-style-type: none"><li>■ Inspect temporary measures prior to the rainy season, after rainfall events, and regularly (approximately once per week) during the rainy season.</li><li>■ Inspect ditches and berms for washouts. Replace lost riprap, damaged linings or soil stabilizers as needed.</li><li>■ Inspect channel linings, embankments, and beds of ditches and berms for erosion and accumulation of debris and sediment. Remove debris and sediment, and repair linings and embankments as needed or as directed by the RE.</li><li>■ Temporary conveyances shall be completely removed as soon as the surrounding drainage area has been stabilized, or at the completion of construction.</li></ul>   |

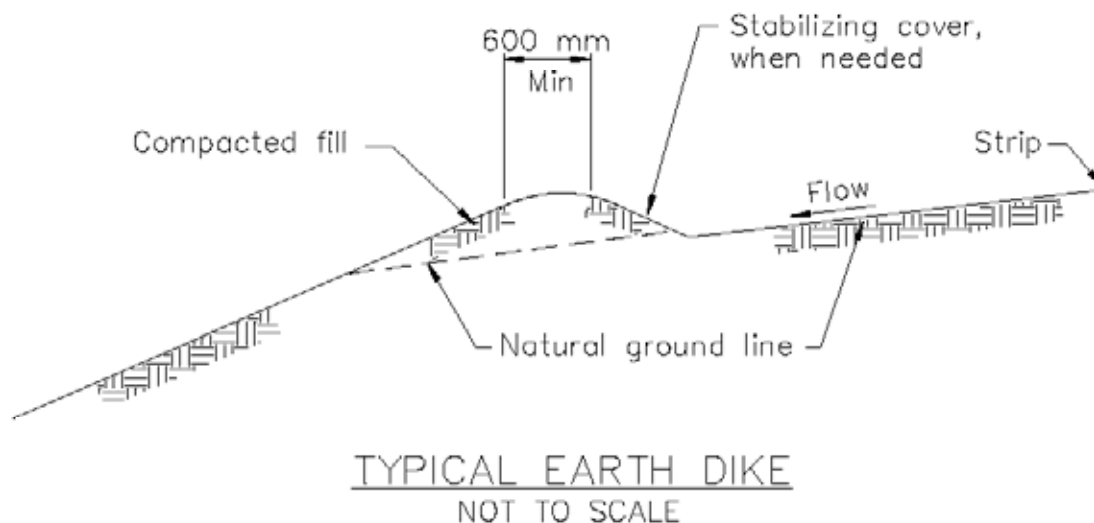
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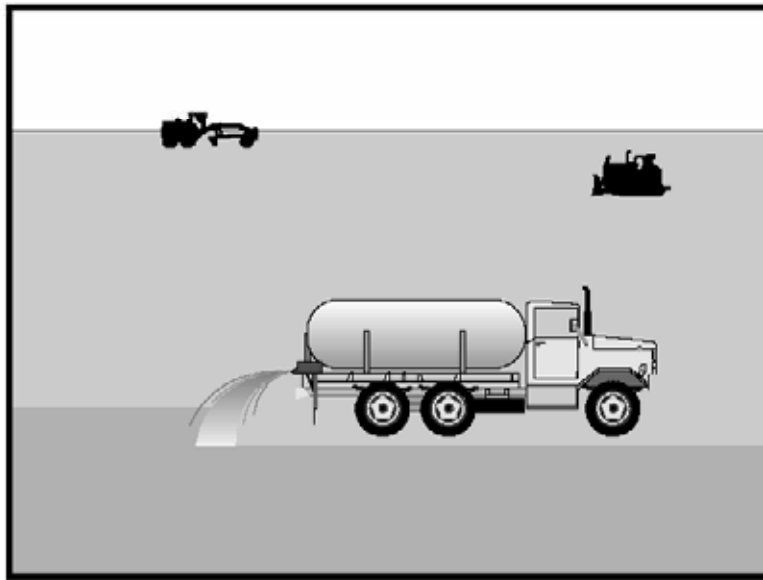
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## NOTES:

1. Stabilize inlet, outlets and slopes.
2. Properly compact the subgrade, in conformance with Section 19-5 of the Caltrans Standard Specifications.





Standard Symbol

### BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

**Definition and Purpose** Wind erosion control consists of applying water and/or other dust palliatives as necessary to prevent or alleviate erosion by the forces of wind. Dust control shall be applied in accordance with Caltrans standard practices. Covering of small stockpiles or areas is an alternative to applying water or other dust palliatives.

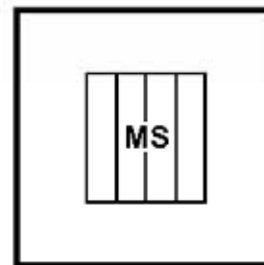
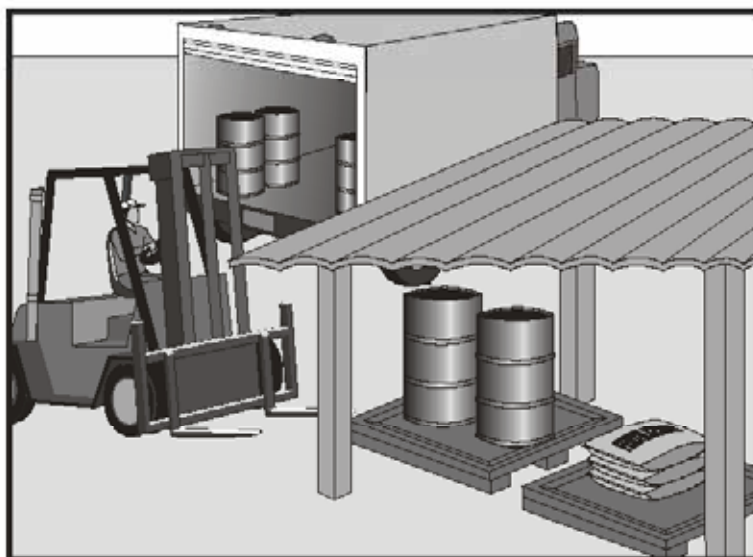
**Appropriate Applications** ■ This practice is implemented on all exposed soils subject to wind erosion.

**Limitations** ■ Effectiveness depends on soil, temperature, humidity and wind velocity.

**Standards and Specifications**

- Water shall be applied by means of pressure-type distributors or pipelines equipped with a spray system or hoses and nozzles that will ensure even distribution.
- All distribution equipment shall be equipped with a positive means of shutoff.
- Unless water is applied by means of pipelines, at least one mobile unit shall be available at all times to apply water or dust palliative to the project.
- If reclaimed water is used, the sources and discharge must meet California Department of Health Services water reclamation criteria and the Regional Water Quality Control Board requirements. Non-potable water shall not be conveyed in tanks or drain pipes that will be used to convey potable water and there shall be no connection between potable and non-potable supplies. Non-potable tanks, pipes and other conveyances shall be marked "NON-POTABLE WATER - DO NOT DRINK."
- Materials applied as temporary soil stabilizers and soil binders will also provide wind erosion control benefits.

**Maintenance and Inspection** ■ Check areas that have been protected to ensure coverage.



Standard Symbol

## BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

### Definition and Purpose

Procedures and practices for the proper handling and storage of materials in a manner that minimizes or eliminates the discharge of these materials to the storm drain system or to watercourses.

### Appropriate Applications

These procedures are implemented at all construction sites with delivery and storage of the following:

- Hazardous chemicals such as:
  - Acids,
  - lime,
  - glues,
  - adhesives,
  - paints,
  - solvents, and
  - curing compounds.
- Soil stabilizers and binders.
- Fertilizers.
- Detergents.
- Plaster.
- Petroleum products such as fuel, oil, and grease.
- Asphalt and concrete components.
- Pesticides and herbicides.

- Other materials that may be detrimental if released to the environment.
- Limitations ■ Space limitation may preclude indoor storage.
- Storage sheds must meet building & fire code requirements.

## Standards and Specifications

### **General**

- Train employees and subcontractors on the proper material delivery and storage practices.
- Temporary storage area shall be located away from vehicular traffic.
- Material Safety Data Sheets (MSDS) shall be supplied to the Resident Engineer (RE) for all materials stored.

### **Material Storage Areas and Practices**

- Liquids, petroleum products, and substances listed in 40 CFR Parts 110, 117, or 302 shall be stored in approved containers and drums and shall be placed in temporary containment facilities for storage.
- Throughout the rainy season, each temporary containment facility shall have a permanent cover and side wind protection or be covered during non-working days and prior to and during rain events.
- A temporary containment facility shall provide for a spill containment volume able to contain precipitation from a 24-hour, 25-year storm event, plus the greater of 10% of the aggregate volume of all containers or 100% of the capacity of the largest container within its boundary, whichever is greater.
- A temporary containment facility shall be impervious to the materials stored therein for a minimum contact time of 72 hours.
- A temporary containment facility shall be maintained free of accumulated rainwater and spills. In the event of spills or leaks, accumulated rainwater and spills shall be collected and placed into drums. These liquids shall be handled as a hazardous waste unless testing determines them to be non-hazardous. All collected liquids or non-hazardous liquids shall be sent to an approved disposal site.
- Sufficient separation shall be provided between stored containers to allow for spill cleanup and emergency response access.
- Incompatible materials, such as chlorine and ammonia, shall not be stored in the same temporary containment facility.
- Materials shall be stored in their original containers and the original product labels shall be maintained in place in a legible condition. Damaged or otherwise illegible labels shall be replaced immediately.

- 
- Bagged and boxed materials shall be stored on pallets and shall not be allowed to accumulate on the ground. To provide protection from wind and rain, throughout the rainy season, bagged and boxed materials shall be covered during non-working days and prior to rain events.
- Stockpiles shall be protected in accordance with BMP WM-3, "Stockpile Management."
- Minimize the material inventory stored on-site (e.g., only a few days supply).
- Have proper storage instructions posted at all times in an open and conspicuous location.
- Do not store hazardous chemicals, drums, or bagged materials directly on the ground. Place these items on a pallet and when possible, under cover in secondary containment.
- Keep hazardous chemicals well labeled and in their original containers.
- Keep ample supply of appropriate spill clean up material near storage areas.
- Also see BMP WM-6, "Hazardous Waste Management", for storing of hazardous materials.

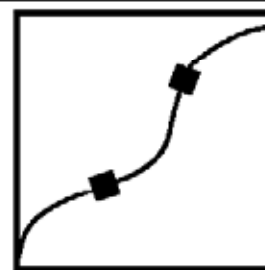
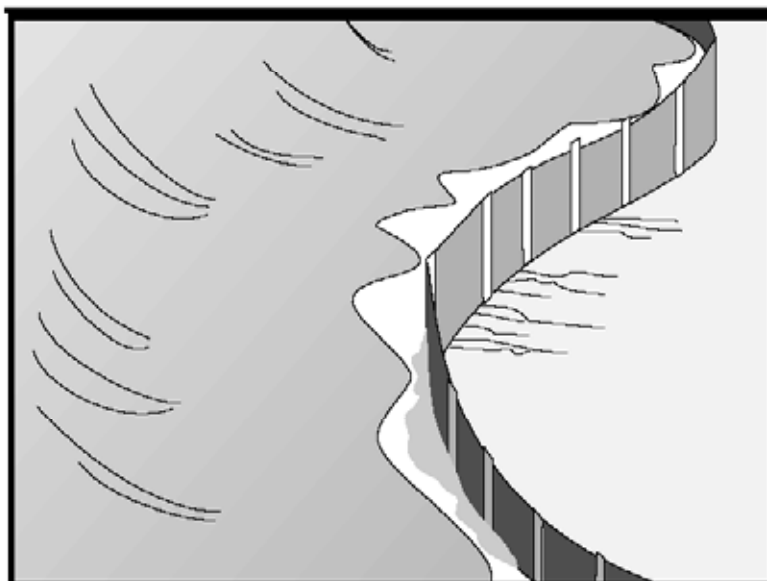
## ***Material Delivery Practices***

- Keep an accurate, up-to-date inventory of material delivered and stored on-site.
- Employees trained in emergency spill clean-up procedures shall be present when dangerous materials or liquid chemicals are unloaded.

## ***Spill Clean-up***

- Contain and clean up any spill immediately.
- If significant residual materials remain on the ground after construction is complete, properly remove and dispose any hazardous materials or contaminated soil.
- See BMP WM-4, "Spill Prevention and Control", for spills of chemicals and/or hazardous materials.

- Maintenance and Inspection
- Storage areas shall be kept clean, well organized, and equipped with ample clean-up supplies as appropriate for the materials being stored.
  - Perimeter controls, containment structures, covers, and liners shall be repaired or replaced as needed to maintain proper function.
  - Inspect storage areas before and after rainfall events, and at least weekly during other times. Collect and place into drums any spills or accumulated rainwater.



Standard Symbol

### BMP Objectives

- ☐ Soil Stabilization
- ☒ Sediment Control
- ☐ Tracking Control
- ☐ Wind Erosion Control
- ☐ Non-Storm Water Management
- ☐ Materials and Waste Management

### Definition and Purpose

A silt fence is a temporary linear sediment barrier of permeable fabric designed to intercept and slow the flow of sediment-laden sheet flow runoff. Silt fences allow sediment to settle from runoff before water leaves the construction site.

### Appropriate Applications

Silt fences are placed:

- Below the toe of exposed and erodible slopes.
- Down-slope of exposed soil areas.
- Around temporary stockpiles.
- Along streams and channels.
- Along the perimeter of a project.

### Limitations

- Not effective unless trenched and keyed in.
- Not intended for use as mid-slope protection on slopes greater than 1:4 (V:H).
- Must be maintained.
- Must be removed and disposed of.
- Don't use below slopes subject to creep, slumping, or landslides.
- Don't use in streams, channels, drain inlets, or anywhere flow is concentrated.
- Don't use silt fences to divert flow.

## Standards and Specifications

### *Design and Layout*

- The maximum length of slope draining to any point along the silt fence shall be 61 m (200 ft) or less.
- Slope of area draining to silt fence shall be less than 1:1 (V:H).
- Limit to locations suitable for temporary ponding or deposition of sediment.
- Fabric life span generally limited to between five and eight months. Longer periods may require fabric replacement.
- Silt fences shall not be used in concentrated flow areas.
- Lay out in accordance with Pages 5 and 6 of this BMP.
- For slopes steeper than 1:2 (V:H) and that contain a high number of rocks or large dirt clods that tend to dislodge, it may be necessary to install additional protection immediately adjacent to the bottom of the slope, prior to installing silt fence. Additional protection may be a chain link fence or a cable fence.
- For slopes adjacent to water bodies or Environmentally Sensitive Areas (ESAs), additional temporary soil stabilization BMPs shall be used.

### *Materials*

- Silt fence fabric shall be woven polypropylene with a minimum width of 900 mm (36 inches) and a minimum tensile strength of 0.45-kN. The fabric shall conform to the requirements in ASTM designation D4632 and shall have an integral reinforcement layer. The reinforcement layer shall be a polypropylene, or equivalent, net provided by the manufacturer. The permittivity of the fabric shall be between  $0.1 \text{ sec}^{-1}$  and  $0.15 \text{ sec}^{-1}$  in conformance with the requirements in ASTM designation D4491. Contractor must submit certificate of compliance in accordance with Standard Specifications Section 6-1.07.
- Wood stakes shall be commercial quality lumber of the size and shape shown on the plans. Each stake shall be free from decay, splits or cracks longer than the thickness of the stake or other defects that would weaken the stakes and cause the stakes to be structurally unsuitable.
- Bar reinforcement may be used, and its size shall be equal to a number four (4) or greater. End protection shall be provided for any exposed bar reinforcement.
- Staples used to fasten the fence fabric to the stakes shall be not less than 45 mm (1.75 inches) long and shall be fabricated from 1.57 mm (0.06 inch) or heavier wire. The wire used to fasten the tops of the stakes together when

joining two sections of fence shall be 3.05 mm (0.12 inch) or heavier wire. Galvanizing of the fastening wire is not required.

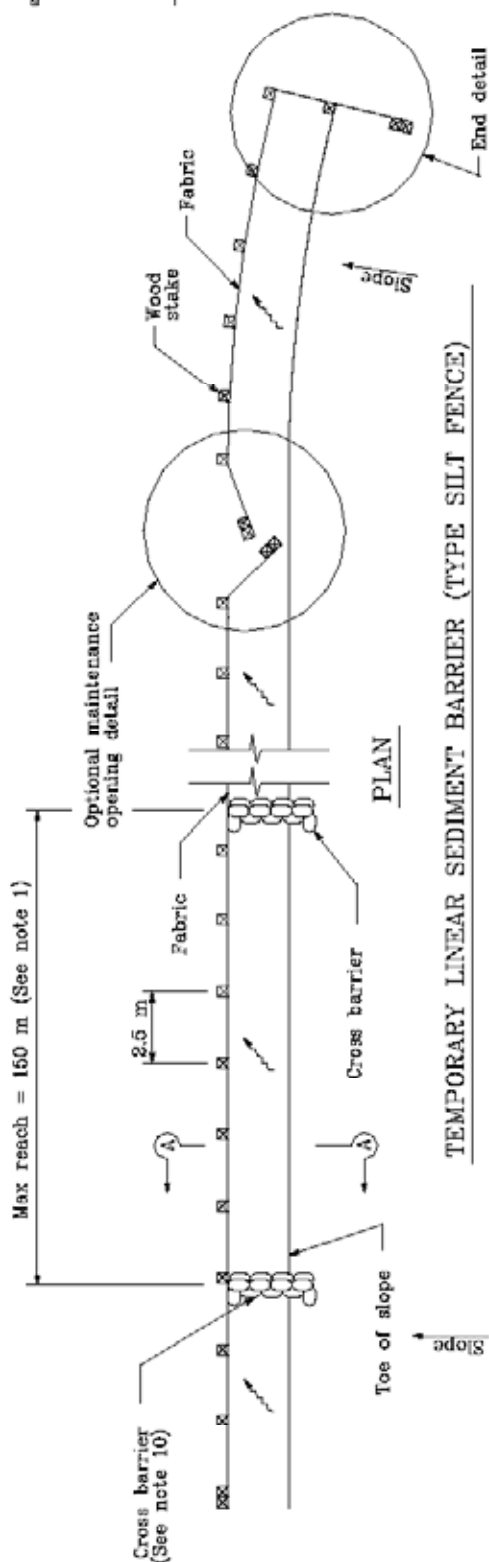
## ***Installation***

- Generally, silt fences shall be used in conjunction with soil stabilization source controls up slope to provide effective erosion and sediment control.
- Bottom of the silt fence shall be keyed-in a minimum of 150 mm (12 inches).
- Trenches shall not be excavated wider and deeper than necessary for proper installation of the temporary linear sediment barriers.
- Excavation of the trenches shall be performed immediately before installation of the temporary linear sediment barriers.
- Construct silt fences with a set-back of at least 1m (3 ft) from the toe of a slope. Where a silt fence is determined to be not practical due to specific site conditions, the silt fence may be constructed at the toe of the slope, but shall be constructed as far from the toe of the slope as practical.
- Construct the length of each reach so that the change in base elevation along the reach does not exceed 1/3 the height of the barrier; in no case shall the reach exceed 150 meters (490 ft).
- Cross barriers shall be a minimum of 1/3 and a maximum of 1/2 the height of the linear barrier.
- Install in accordance with Pages 5 and 6 of this BMP.

## **Maintenance and Inspection**

- Repair undercut silt fences.
- Repair or replace split, torn, slumping, or weathered fabric.
- Inspect silt fence when rain is forecast. Perform necessary maintenance, or maintenance required by the Resident Engineer (RE).
- Inspect silt fence following rainfall events. Perform maintenance as necessary, or as required by the RE.
- Maintain silt fences to provide an adequate sediment holding capacity. Sediment shall be removed when the sediment accumulation reaches one-third (1/3) of the barrier height. Removed sediment shall be incorporated in the project at locations designated by the RE or disposed of outside the right-of-way in conformance with the Standard Specifications.
- Silt fences that are damaged and become unsuitable for the intended purpose, as determined by the RE, shall be removed from the site of work, disposed of outside the highway right-of-way in conformance with the Standard Specifications, and replaced with new silt fence barriers.

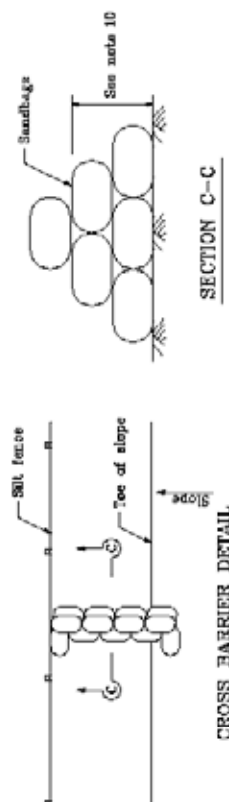
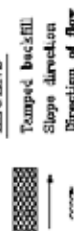
- 
- Holes, depressions or other ground disturbance caused by the removal of the temporary silt fences shall be backfilled and repaired in conformance with the Standard Specifications.
  - Remove silt fence when no longer needed or as required by the RE. Fill and compact post holes and anchorage trench, remove sediment accumulation, and grade fence alignment to blend with adjacent ground.



## NOTES

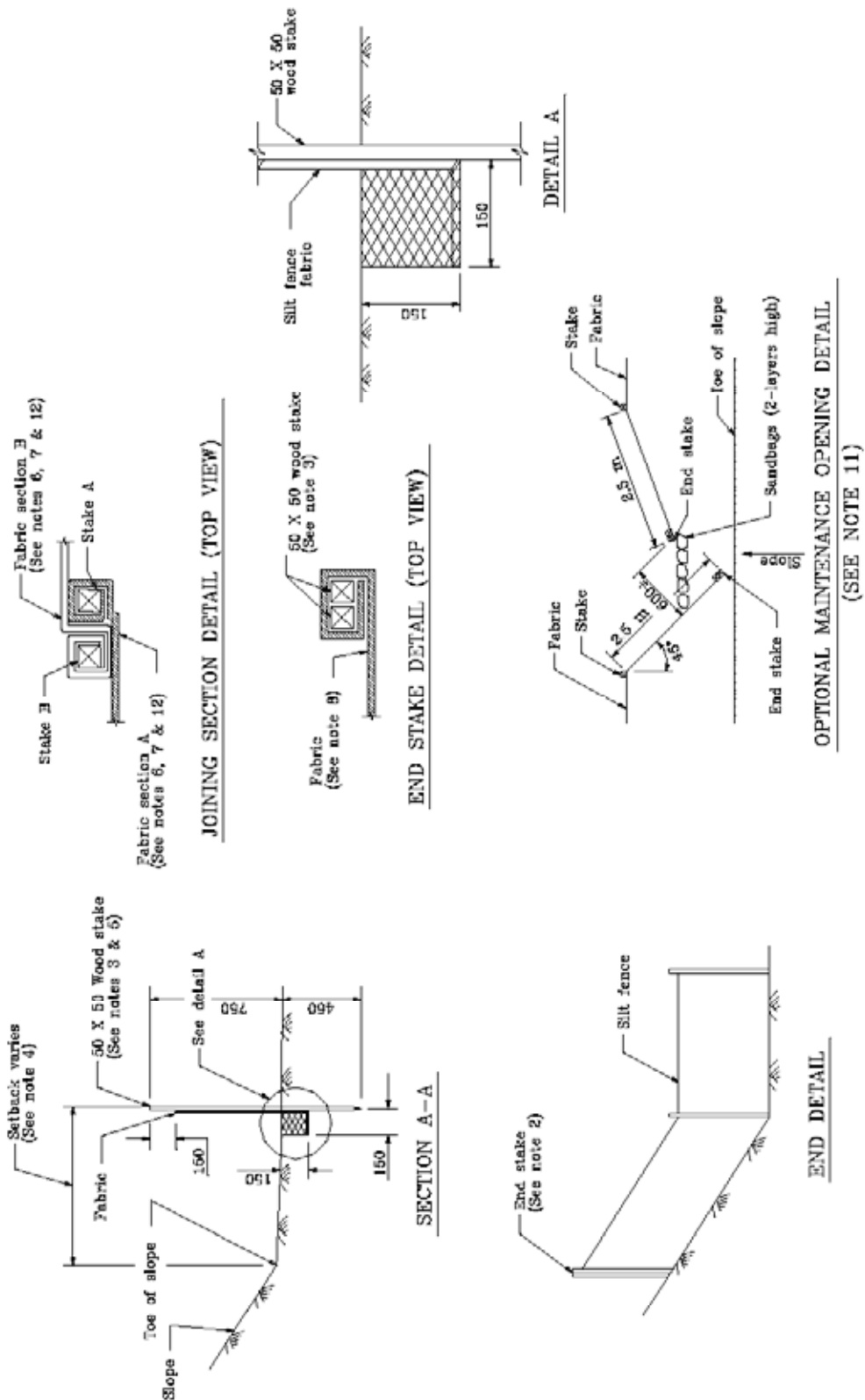
1. Construct the length of each reach so that the change in base elevation along the reach does not exceed 1/3 the height of the linear barrier, in no case shall the reach length exceed 150m.
2. The last 2.5 m of fence shall be turned up slope.
3. Stake dimensions are nominal.
4. Dimensions may vary to fit field condition.
5. Stakes shall be spaced at 2.5 m maximum and shall be positioned on downstream side of fence.
6. Stakes to overlap and fence fabric to fold around each stake one full turn. Secure fabric to stake with 4 staples.
7. Stakes shall be driven tightly together to prevent potential flow-through of sediment at joint. The top of the stakes shall be secured with wire.
8. For end stake, fence fabric shall be folded around two stakes one full turn and secured with 4 staples.
9. Minimum 4 staples per stake. Dimensions shown are typical.
10. Cross barriers shall be a minimum of 1/3 and a maximum of 1/8 the height of the linear barrier.
11. Maintenance openings shall be constructed in a manner to ensure sediment remains behind silt fence.
12. Joining sections shall not be placed at sump locations.
13. Sandbag rows and layers shall be offset to eliminate gaps.

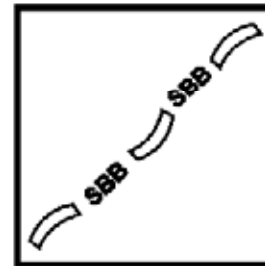
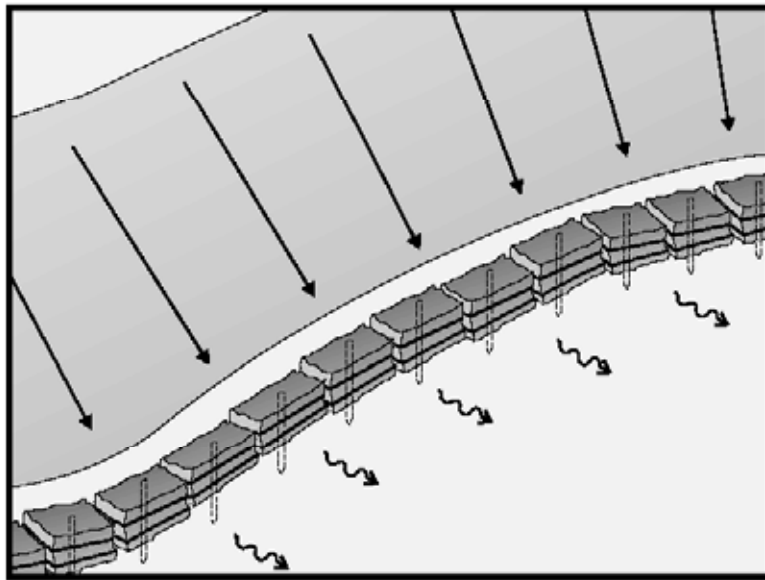
## LEGEND



## STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION TEMPORARY LINEAR SEDIMENT BARRIER (TYPE SILT FENCE)

NO SCALE  
ALL DIMENSIONS ARE IN  
MILLIMETERS UNLESS OTHERWISE SHOWN





Standard Symbol

### BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

### Definition and Purpose

A straw bale barrier is a temporary linear sediment barrier consisting of straw bales, designed to intercept and slow sediment-laden sheet flow runoff. Straw bale barriers allow sediment to settle from runoff before water leaves the construction site.

### Appropriate Applications

- This BMP may be implemented on a project-by-project basis in addition to other BMPs when determined necessary and feasible by the Resident Engineer (RE).
- Along the perimeter of a site.
- Along streams and channels.
- Below the toe of exposed and erodible slopes.
- Down slope of exposed soil areas.
- Around stockpiles.
- Across minor swales or ditches with small catchments.
- Around above grade type temporary concrete washouts (See BMP WM-8, "Concrete Waste Management").
- Parallel to a roadway to keep sediment off paved areas.

- Limitations
- Installation can be labor intensive.
  - Straw bale barriers are maintenance intensive.
  - Degraded straw bales may fall apart when removed or left in place for extended periods.
  - Can't be used on paved surfaces.
  - Not to be used for drain inlet protection.
  - Shall not be used in areas of concentrated flow.
  - Can be an attractive food source for some animals.
  - May introduce undesirable non-native plants to the area.

### Standards and Specifications

#### **Materials**

- **Straw Bale Material:** Straw bale materials shall conform to the provisions in Standard Specifications Section 20-2.06, "Straw."
- **Straw Bale Size:** Each straw bale shall be a minimum of 360 mm (14 in) wide, 450 mm (18 in) in height, 900 mm (36 in) in length and shall have a minimum mass of 23 kg (51 lb.) The straw bale shall be composed entirely of vegetative matter, except for the binding material.
- **Bale Bindings:** Bales shall be bound by either steel wire, nylon or polypropylene string placed horizontally. Jute and cotton binding shall not be used. Baling wire shall be a minimum diameter of 1.57 mm (0.06 inch). Nylon or polypropylene string shall be approximately 2 mm (0.08 inch) in diameter with a breaking strength of 360 N.
- **Stakes:** Wood stakes shall be commercial quality lumber of the size and shape shown on the plans. Each stake shall be free from decay, splits or cracks longer than the thickness of the stake, or other defects that would weaken the stakes and cause the stakes to be structurally unsuitable. Steel bar reinforcement shall be equal to a number four designation or greater. End protection shall be provided for any exposed bar reinforcement.

#### **Installation**

- Limit the drainage area upstream of the barrier to 0.3 ha/100 m (0.25 ac/100ft) or barrier.
- Limit the slope length draining to the straw bale barrier to 30 m (100 ft.)

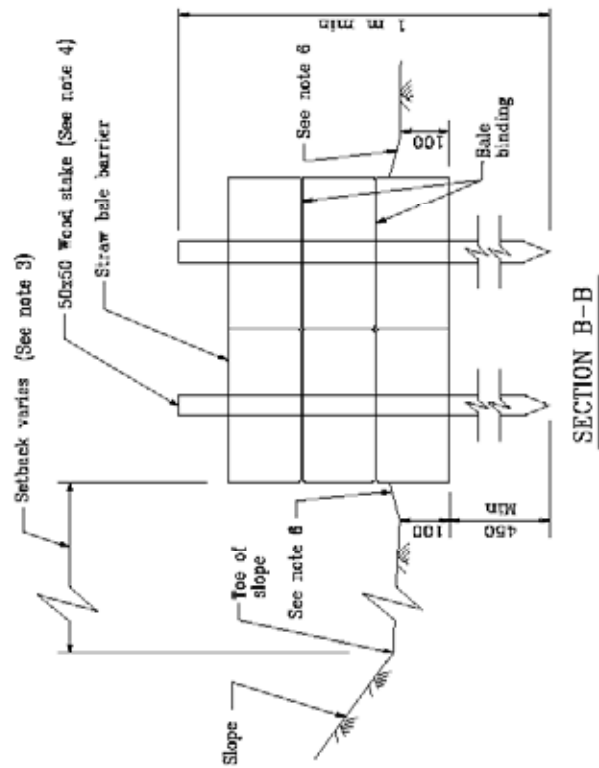
- Slopes of 2:100 (V:H) (2%) or flatter are preferred. If the slope exceeds 1:10 (V:H) (10%), the length of slope upstream of the barrier must be less than 15 m (50 ft).
- Install straw bale barriers along a level contour, with the last straw bale turned up slope.
- Straw bales must be installed in a trench and tightly abut adjacent bales.
- Construct straw bale barriers with a set-back of at least 1 m (3 ft) from the toe of a slope. Where it is determined to be not practical due to specific site conditions, the straw bale barrier may be constructed at the toe of the slope, but shall be constructed as far from the toe of the slope as practical.
- See pages 4 and 5 of this BMP for installation detail.

## Maintenance and Inspection

- Inspect straw bale barriers before and after each rainfall event, and weekly throughout the rainy season.
- Inspect straw bale barriers for sediment accumulations and remove sediment when depth reaches one-third the barrier height. Removed sediment shall be incorporated in the project at locations designated by the RE or disposed of outside the highway right-of-way in conformance with the Standard Specifications.
- Replace or repair damage bales as needed or as directed by the RE.
- Repair washouts or other damages as needed or as directed by the RE.
- Remove straw bales when no longer needed. Remove sediment accumulation, and clean, re-grade, and stabilized the area.

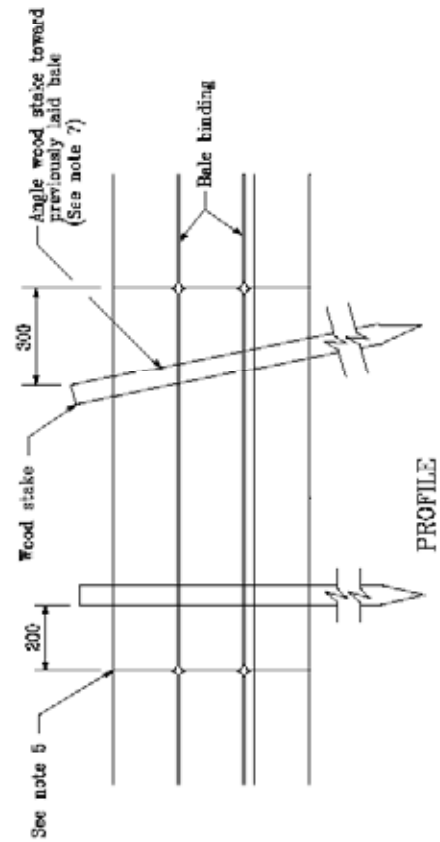
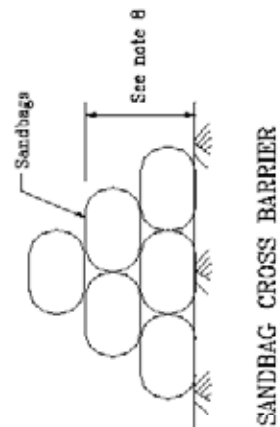
# Straw Bale Barrier

**SC-9**



## LEGEND

~~~~~ DIRECTION OF FLOW

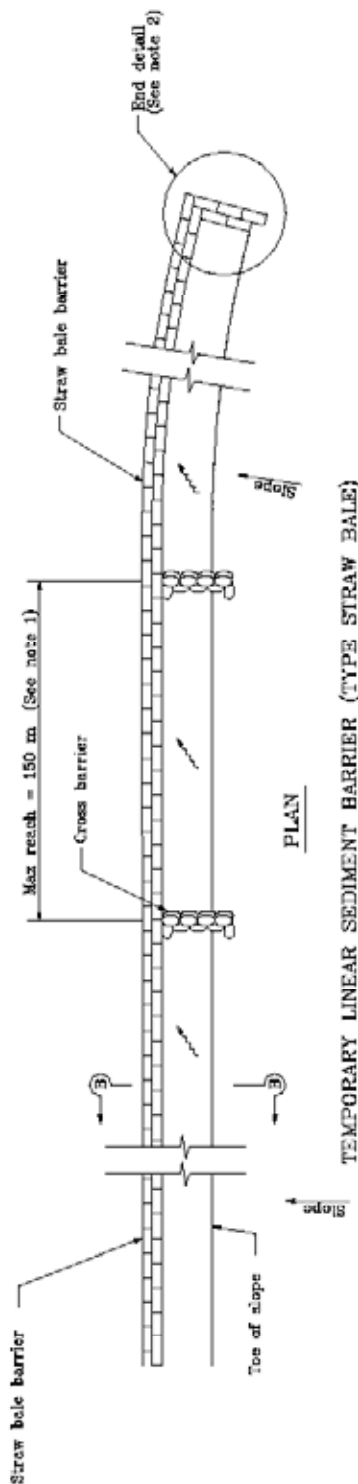


STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
TEMPORARY LINEAR SEDIMENT BARRIER  
(TYPE STRAW BALE)

NO SCALE  
ALL DIMENSIONS ARE IN  
MILLIMETERS UNLESS OTHERWISE SHOWN

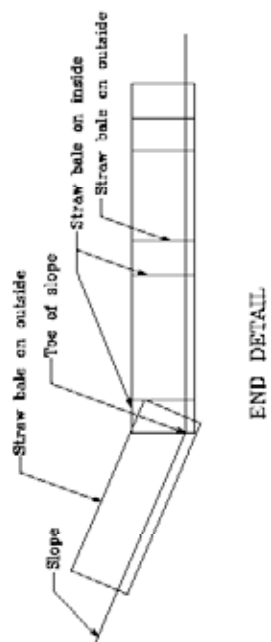
# Straw Bale Barrier

**SC-9**



## NOTES

1. Construct the length of each reach so that the change in base elevation along the reach does not exceed  $1/2$  the height of the linear barrier. In no case shall the reach length exceed 150 m.
2. The end of barrier shall be turned up slope.
3. Dimension may vary to fit field condition.
4. Stake dimensions are nominal.
5. Place straw bales tightly together.
6. Temp embedment spoils against sides of installed bales.
7. Drive angled wood stake before vertical stake to ensure tight abutment to adjacent bale.
8. Cross barriers shall be a min of  $1/2$  and a max of  $2/3$  the height of the linear barrier.
9. Sandbag rows and layers shall be offset to eliminate gaps.



STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

## TEMPORARY LINEAR SEDIMENT BARRIER (TYPE STRAW BALE)

NO SCALE

ALL DIMENSIONS ARE IN  
MILLIMETERS UNLESS OTHERWISE SHOWN

**APPENDIX E**  
**Notice of Intent (Approved)**



## State Water Resources Control Board



**Linda S. Adams**  
Secretary for  
Environmental  
Protection

**Division of Water Quality**  
1001 I Street o Sacramento, California 95814 o (916) 341-5536  
Mailing Address: P.O. Box 1977 o Sacramento, California o 95812-1977  
FAX (916) 341-5543 o Internet Address:  
<http://www.waterboards.ca.gov>  
Email Address: [stormwater@waterboards.ca.gov](mailto:stormwater@waterboards.ca.gov)

**Arnold  
Schwarzenegger**  
Governor

**Approved Date:** 01/13/2009

John Goodwin  
FPL Energy  
700 University Blvd  
Juno Beach, FL 33408

### RECEIPT OF YOUR NOTICE OF INTENT (NOI)

The State Water Resources Control Board (State Water Board) has received and processed your NOI to comply with the terms of the General Permit for Storm Water Discharges Associated with Construction Activity. Accordingly, you are required to comply with the permit requirements.

The Waste Discharger Identification (WDID) number is: **7 33C354373** .  
Please use this number in any future communications regarding this permit.

### SITE DESCRIPTION

**OWNER:** FPL Energy  
**DEVELOPER:** Blythe Energy LLC  
**SITE INFORMATION:** Blythe Energy Project Transmission Line BEPTL  
**SITE LOCATION:** Julian Hinds Substation Hayfield, CA 92225  
**COUNTY:** Riverside  
**TOTAL DISTURBED ACRES:** 179.0  
**START DATE:** 02/09/2009  
**COMPLETION DATE:** 08/01/2010

When construction is complete or ownership is transferred, **dischargers are required to submit a Notice of Termination (NOT)** to the local Regional Water Board. All State and local requirements must be met in accordance with Special Provision No. 7 of the General Permit. If you do not submit a NOT when construction activity is completed you will continue and are responsible to pay the annual fee invoiced each January.

If you have any questions regarding permit requirements, please contact your Regional Water Board at **(760) 346-7491**. Please visit the storm water web page at [www.waterboards.ca.gov/stormwtr/index.html](http://www.waterboards.ca.gov/stormwtr/index.html) to obtain an NOT and other storm water related information and forms.

Sincerely,

Storm Water Section

Division of Water Quality

*California Environmental Protection Agency*



State Water Resources Control Board  
**NOTICE OF INTENT**  
TO COMPLY WITH THE TERMS OF THE  
GENERAL PERMIT TO DISCHARGE STORM WATER  
ASSOCIATED WITH CONSTRUCTION ACTIVITY (WQ ORDER No. 99-08-DWQ)

Attachment 2



**I. NOI STATUS (SEE INSTRUCTIONS)**

|                    |                                                         |                                                                        |  |
|--------------------|---------------------------------------------------------|------------------------------------------------------------------------|--|
| MARK ONLY ONE ITEM | 1. <input checked="" type="checkbox"/> New Construction | 2. <input checked="" type="checkbox"/> Change of Information for WDID# |  |
|--------------------|---------------------------------------------------------|------------------------------------------------------------------------|--|

**II. PROPERTY OWNER**

|                                                |                                      |                                       |                                   |
|------------------------------------------------|--------------------------------------|---------------------------------------|-----------------------------------|
| Name<br>See Attachment A                       | Contact Person                       |                                       |                                   |
| Mailing Address                                | Title                                |                                       |                                   |
| City                                           | State                                | Zip                                   | Phone                             |
| Owner Type (check one)                         |                                      |                                       |                                   |
| 1. <input type="checkbox"/> Private Individual | 2. <input type="checkbox"/> Business | 3. <input type="checkbox"/> Municipal | 4. <input type="checkbox"/> State |
| 5. <input type="checkbox"/> Federal            | 6. <input type="checkbox"/> Other    |                                       |                                   |

**III. DEVELOPER/CONTRACTOR INFORMATION**

|                                            |                               |              |                         |
|--------------------------------------------|-------------------------------|--------------|-------------------------|
| Developer/Contractor<br>Blythe Energy, LLC | Contact Person<br>Gary Hickey |              |                         |
| Mailing Address<br>1152 Greenbrier Drive   | Title                         |              |                         |
| City<br>Forsyth                            | State<br>IL                   | Zip<br>62535 | Phone<br>(217) 877-9718 |

**IV. CONSTRUCTION PROJECT INFORMATION**

|                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                   |                                                                                             |                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------|
| Site/Project Name<br>Blythe Energy Project Transmission Line (BEPTL)                                                                                                                                                                                                                                                                                                                                        |                                                                                                                   | Site Contact Person<br>Rob Holt                                                             |                            |
| Physical Address/Location<br>Blythe, CA to Julian Hinds Substation located near                                                                                                                                                                                                                                                                                                                             |                                                                                                                   | Latitude<br>°                                                                               | Longitude<br>°             |
| City (or nearest City)<br>Hayfield, CA, adjacent to Interstate 10                                                                                                                                                                                                                                                                                                                                           |                                                                                                                   | County<br>Riverside                                                                         |                            |
| Zip<br>92225                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                   | Site Phone Number<br>(760) 922-4658                                                         | Emergency Phone Number     |
| A. Total size of construction site area:<br>776 Acres                                                                                                                                                                                                                                                                                                                                                       | C. Percent of site imperviousness (including rooftops):<br>Before Construction: 0 %<br>After Construction: <0.1 % |                                                                                             | D. Tract Number(s): NA, NA |
| B. Total area to be disturbed:<br>179 Acres (% of total 23%)                                                                                                                                                                                                                                                                                                                                                |                                                                                                                   |                                                                                             | E. Mile Post Marker: NA    |
| F. Is the construction site part of a larger common plan of development or sale?<br><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO                                                                                                                                                                                                                                                     |                                                                                                                   | G. Name of plan or development:<br>NA                                                       |                            |
| H. Construction commencement date: 02 / 09 / 09                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                   | J. Projected construction dates:<br>Complete grading: NA / / Complete project: 08 / 01 / 10 |                            |
| I. % of site to be mass graded: 0                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                   |                                                                                             |                            |
| K. Type of Construction (Check all that apply):<br>1. <input type="checkbox"/> Residential 2. <input type="checkbox"/> Commercial 3. <input type="checkbox"/> Industrial 4. <input type="checkbox"/> Reconstruction 5. <input type="checkbox"/> Transportation<br>6. <input checked="" type="checkbox"/> Utility Description: Transmission Line 7. <input checked="" type="checkbox"/> Other (Please List): |                                                                                                                   |                                                                                             |                            |

**V. BILLING INFORMATION**

|                                                                      |                                          |                               |
|----------------------------------------------------------------------|------------------------------------------|-------------------------------|
| SEND BILL TO:<br><input type="checkbox"/> OWNER<br>(as in II. above) | Name<br>Blythe Energy, LLC               | Contact Person<br>Gary Hickey |
| <input checked="" type="checkbox"/> DEVELOPER<br>(as in III. above)  | Mailing Address<br>1152 Greenbrier Drive | Phone/Fax<br>(217) 877-9718   |
| <input type="checkbox"/> OTHER<br>(enter information at right)       | City<br>Forsythe                         | State<br>IL                   |
|                                                                      |                                          | Zip<br>62535                  |

## VI. REGULATORY STATUS

|                                                                                                                                               |                                         |                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------------------------------------|
| A. Has a local agency approved a required erosion/sediment control plan?.....                                                                 | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |
| Does the erosion/sediment control plan address construction activities such as infrastructure and structures?.....                            | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |
| Name of local agency: <u>California Energy Commission</u>                                                                                     | Phone: <u>(916) 654-4287</u>            |                                        |
| B. Is this project or any part thereof, subject to conditions imposed under a CWA Section 404 permit of 401 Water Quality Certification?..... | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |
| If yes, provide details: _____                                                                                                                |                                         |                                        |

## VII. RECEIVING WATER INFORMATION

|                                                                                                |                                                                                  |
|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| A. Does the storm water runoff from the construction site discharge to (Check all that apply): |                                                                                  |
| 1. <input type="checkbox"/>                                                                    | Indirectly to waters of the U.S.                                                 |
| 2. <input type="checkbox"/>                                                                    | Storm drain system - Enter owner's name: _____                                   |
| 3. <input type="checkbox"/>                                                                    | Directly to waters of U.S. (e.g. , river, lake, creek, stream, bay, ocean, etc.) |
| B. Name of receiving water: (river, lake, creek, stream, bay, ocean): <u>NA</u>                |                                                                                  |

## VIII. IMPLEMENTATION OF NPDES PERMIT REQUIREMENTS

|                                                                                                                                                                                                                                                    |                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A. STORM WATER POLLUTION PREVENTION PLAN (SWPPP) (check one)                                                                                                                                                                                       |                                                                                                                                                                                                       |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                | A SWPPP has been prepared for this facility and is available for review: Date Prepared: <u>5 / 1 / 08</u> Date Amended: <u>11 / 14 / 08</u>                                                           |
| <input type="checkbox"/>                                                                                                                                                                                                                           | A SWPPP will be prepared and ready for review by (enter date): <u>    </u> / <u>    </u> / <u>    </u>                                                                                                |
| <input type="checkbox"/>                                                                                                                                                                                                                           | A tentative schedule has been included in the SWPPP for activities such as grading, street construction, home construction, etc.                                                                      |
| B. MONITORING PROGRAM                                                                                                                                                                                                                              |                                                                                                                                                                                                       |
| <input type="checkbox"/>                                                                                                                                                                                                                           | A monitoring and maintenance schedule has been developed that includes inspection of the construction BMPs before anticipated storm events and after actual storm events and is available for review. |
| If checked above: A qualified person has been assigned responsibility for pre-storm and post-storm BMP inspections to identify effectiveness and necessary repairs or design changes..... <input type="checkbox"/> YES <input type="checkbox"/> NO |                                                                                                                                                                                                       |
| Name: _____ Phone: _____                                                                                                                                                                                                                           |                                                                                                                                                                                                       |
| C. PERMIT COMPLIANCE RESPONSIBILITY                                                                                                                                                                                                                |                                                                                                                                                                                                       |
| A qualified person has been assigned responsibility to ensure full compliance with the Permit, and to implement all elements of the Storm Water Pollution Prevention Plan including:                                                               |                                                                                                                                                                                                       |
| 1. Preparing an annual compliance evaluation.....                                                                                                                                                                                                  | <input type="checkbox"/> YES <input type="checkbox"/> NO                                                                                                                                              |
| Name: _____ Phone: _____                                                                                                                                                                                                                           |                                                                                                                                                                                                       |
| 2. Eliminating all unauthorized discharges.....                                                                                                                                                                                                    | <input type="checkbox"/> YES <input type="checkbox"/> NO                                                                                                                                              |

## IX. VICINITY MAP AND FEE (must show site location in relation to nearest named streets, intersections, etc.)

|                                                                       |                                         |                             |
|-----------------------------------------------------------------------|-----------------------------------------|-----------------------------|
| Have you included a vicinity map with this submittal? .....           | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
| Have you included payment of the annual fee with this submittal?..... | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |

## X. CERTIFICATIONS

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| "I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment. In addition, I certify that I have read the entire General Permit, including all attachments, and agree to comply with and be bound by all of the provisions, requirements, and prohibitions of the permit, including the development and implementation of a Storm Water Pollution Prevention Plan and a Monitoring Program Plan will be complied with." |                       |
| Printed Name: <u>BENJAMIN E. GIBSON, Jr.</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                       |
| Signature: <u>[Signature]</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Date: <u>11/25/08</u> |
| Title: <u>vice president</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                       |

| Notice of Intent                        |                                  |                                                                                                                                      |
|-----------------------------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Blythe Energy Project Transmission Line |                                  |                                                                                                                                      |
| Attachment A                            |                                  |                                                                                                                                      |
| List of Landowners                      |                                  |                                                                                                                                      |
| APN                                     | OWNER NAME                       | SHORT LEGAL DESCRIPTION                                                                                                              |
| 824-101-021                             | BLYTHE ENERGY, LLC               | 66.95 ACRES IN POR PAR 34 AND PAR 35 PM 105/078 PM 14093                                                                             |
| 824-101-013                             | CAITHNESS BLYTHE II              | 52.23 ACRES NET IN PAR 37 PM 105/078 PM 14093                                                                                        |
| 824-101-012                             | CAITHNESS BLYTHE II              | 23.72 ACRES NET IN PAR 36 PM 105/078 PM 14093                                                                                        |
| 824-102-026                             | SUN WORLD INTERNATIONAL          | 21.96 ACRES NET IN PAR 42 PM 105/078 PM 14093                                                                                        |
| 824-102-025                             | SUN WORLD INTERNATIONAL          | 21.60 ACRES NET IN PAR 41 PM 105/078 PM 14093                                                                                        |
| 824-090-028                             | SUN WORLD INTERNATIONAL          | 20.90 ACRES NET IN PAR 40 PM 105/078 PM 14093                                                                                        |
| 824-090-037                             | RONALD E DAWSON                  | 16.89 ACRES NET IN PAR 3 PM 111/073 PM 18641                                                                                         |
| 824-090-009                             | MESA VINEYARD                    | 39.25 ACRES M/L IN POR SE 1/4 OF SEC 32 T6S R22EE FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                           |
| 863-040-017                             | MESA VINEYARD                    | 105.19 ACRES M/L IN POR N 1/4 OF SEC 5 T7S R22E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                             |
| 863-020-015                             | BEN GOSSER                       | 160.95 ACRES IN POR SEC 5 T7S R22E AND POR SEC 6 T7S R22ER FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                  |
| 863-030-009                             | JESUS M RIVERA                   | 19.90 ACRES NET IN PAR 8 PM 087/096 PM 14907                                                                                         |
| 863-030-010                             | JESUS M RIVERA                   | 19.76 ACRES NET IN PAR 9 PM 087/096 PM 14907                                                                                         |
| 863-080-002                             | USA                              | 321.15 ACRES M/L IN POR N 1/2 OF SEC 7 T7S R22E                                                                                      |
| 863-090-002                             | USA                              | 284.42 ACRES M/L IN POR S 1/2 OF SEC 8 T7S R22E                                                                                      |
| 863-140-003                             | USA                              | 244.44 ACRES M/L IN POR N 1/2 OF SEC 18 T7S R22E                                                                                     |
| 863-150-003                             | USA                              | 122.48 ACRES M/L IN POR S 1/2 OF SEC 18 T7S R22E                                                                                     |
| 879-110-008                             | USA                              | 640.00 ACRES M/L IN POR SEC 13 T7S R21E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                     |
| 879-110-011                             | USA                              | 640.00 ACRES M/L IN POR SEC 24 T7S R21E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                     |
| 879-130-006                             | LORRAINE R AUDET                 | 150.00 ACRES IN POR SEC 25 T7S R21E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                         |
| 879-130-029                             | USA                              | 320.00 ACRES M/L IN POR E 1/2 OF SEC 26 T7S R21EE FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                           |
| 879-110-012                             | USA                              | 120.00 ACRES M/L IN POR SE 1/4 OF SEC 23 T7S R21EA FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                          |
| 879-110-010                             | USA                              | 520.00 ACRES M/L IN POR SEC 23 T7S R21E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                     |
| 879-110-005                             | GEORGE JOROSHI MIYASAKO          | 80.00 Acres in The East Half of the Southeast quarter of Section 22, Township 7, South Range 21 East                                 |
| 879-110-009                             | USA                              | 480.00 ACRES M/L IN POR SEC 22 T7S R21E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                     |
| 879-110-006                             | USA                              | 480.00 ACRES M/L IN POR SEC 15 T7S R21E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                     |
| 879-100-005                             | JUAN & AURORA ACOSTA             | 320.00 Acres; The East half of Section 16, Township 7 South, Range 21 East, San Bernardino Base Meridian in the County of Riverside. |
| 879-100-003                             | DOUGLAS D WALDRON                | 80.00 ACRES IN POR NW 1/4 OF SEC 16 T7S R21E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                |
| 879-100-011                             | MAJID YOUSSEFIHA                 | 37.50 ACRES M/L IN POR NW 1/4 OF SEC 16 T7S R21EE FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                           |
| 879-080-024                             | USA                              | 480.00 ACRES M/L IN POR SEC 9 T7S R21E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                      |
| 879-080-015                             | ANDREW NGUYEN                    | 160.00 Acres; The Southeast quarter of Section 8, Township 7 South, Range 21 East                                                    |
| 879-080-031                             | RICHARD N. NELSON                | 160.00 Acres; The Northeast quarter of Section 8, Township 7 South, Range 21 East                                                    |
| 879-080-027                             | USA                              | 82.40 ACRES M/L IN POR NW 1/4 OF SEC 8 T7S R21E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                             |
| 879-080-022                             | USA                              | 895.09 ACRES M/L IN POR SEC 7 T7S R21E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                      |
| 879-080-002                             | MICHAEL ENNIS J TRUST            | 158.94 ACRES IN POR SEC 6 T7S R21E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                          |
| 879-080-001                             | MICHAEL ENNIS J TRUST            | 94.65 ACRES IN POR SEC 6 T7S R21E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                           |
| 879-030-007                             | ROBERT B. HELMAND                | 160.00 ACRES IN POR SE 1/4 OF SEC 1 T7S R20E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                |
| 879-030-014                             | USA                              | 478.34 ACRES M/L IN POR SEC 1 T7S R20E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                      |
| 879-030-013                             | USA                              | 477.82 ACRES M/L IN POR SEC 2 T7S R20E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                      |
| 879-030-002                             | ETHEL WEINNING                   | 40.00 ACRES IN POR SW 1/4 OF SEC 2 T7S R20E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                 |
| 879-030-001                             | CHERYL M GRAY                    | 40.00 ACRES IN POR SW 1/4 OF SEC 2 T7S R20E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                 |
| 879-030-012                             | USA                              | 639.56 ACRES M/L IN POR SEC 3 T7S R20E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                      |
| 879-020-025                             | USA                              | 641.32 ACRES M/L IN POR SEC 4 T7S R20E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                      |
| 879-020-008                             | ROBERT DESSUREAUT                | 40.00 ACRES IN POR NE 1/4 OF SEC 5 T7S R20E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                 |
| 879-020-007                             | RENEE SWITZKY/BLYTHE ENERGY LLC  | 40.00 ACRES IN POR NE 1/4 OF SEC 5 T7S R20E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                 |
| 879-020-006                             | SHARON SWITZKY/BLYTHE ENERGY LLC | 40.00 ACRES IN POR NW 1/4 OF SEC 5 T7S R20E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                 |
| 879-020-023                             | USA                              | 119.89 ACRES M/L IN POR W 1/2 OF SEC 5 T7S R20E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                             |
| 879-020-022                             | USA                              | 566.55 ACRES M/L IN POR SEC 6 T7S R20E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                      |
| 879-020-002                             | ROBERT CITTELL                   | 39.87 ACRES IN POR NE 1/4 OF SEC 6 T7S R20E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                 |
| 879-020-001                             | CAROL CONE                       | 39.87 Acres; The West half of the West half of Lots 1 and 2, of the Northeast Quarter of Section 6, Township 7 South, Range 20 East  |
| 860-140-005                             | FREDERICK JONES                  | 320.30 Acres; Lots 1 and 2 of the Northeast Quarter and the Southeast Quarter of Section 1, Township 7 South, Range 19 East          |
| 860-140-020                             | USA                              | 320.92 ACRES M/L IN POR W 1/2 OF SEC 1 T7S R19E                                                                                      |
| 860-140-019                             | USA                              | 602.80 ACRES M/L IN POR SEC 2 T7S R19E                                                                                               |

| Notice of Intent                        |                      |                                                                                                                                                                                                                                                           |
|-----------------------------------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Blythe Energy Project Transmission Line |                      |                                                                                                                                                                                                                                                           |
| Attachment A                            |                      |                                                                                                                                                                                                                                                           |
| List of Landowners                      |                      |                                                                                                                                                                                                                                                           |
| APN                                     | OWNER NAME           | SHORT LEGAL DESCRIPTION                                                                                                                                                                                                                                   |
| 860-140-018                             | USA                  | 603.40 ACRES IN POR SEC 3 T7S R19E                                                                                                                                                                                                                        |
| 860-140-018                             | USA                  | 643.56 ACRES IN POR SEC 4 T7S R19E                                                                                                                                                                                                                        |
| 860-230-003                             | SURENDER VUTHOORI    | 62.13 ACRES M/L IN POR NE 1/4 OF SEC 5 T7S R19E                                                                                                                                                                                                           |
| 860-230-002                             | DAVID J VANBEBBER    | 40.87 Acres; The Northeast Quarter of the Northwest Quarter of Section 5, Township 7 South, Range 19 East                                                                                                                                                 |
| 860-230-001                             | MARTIN D MARQUEZ     | 40.74 Acres; The West one-half of Government Lot 2 in the Northwest one-quarter of Section 5, Township 7S, Range 19 East                                                                                                                                  |
| 860-140-015                             | USA                  | 655.86 ACRES IN POR SEC 6 T7S R19E                                                                                                                                                                                                                        |
| 860-100-004                             | SUZANNE SHOWERS      | 39.93 Acres; The East half of Government Lot 2 of the Northeast Quarter of the Northeast Quarter of Section 1, Township 7 South, Range 18 East                                                                                                            |
| 860-100-003                             | PHYLLIS G DIEBENKORN | 39.80 Acres; The West half of Government Lot 2 of the Northeast Quarter of Section 1, Township 7 South, Range 18 East                                                                                                                                     |
| 860-100-002                             | OSAMA FAKHORI        | 39.66 Acres; The East half of Lot 2 of the Northwest Quarter of Section 1, Township 7 South, Range 18 East                                                                                                                                                |
| 860-100-001                             | USA                  | 199.54 ACRES IN POR SEC 1 T7S R18E                                                                                                                                                                                                                        |
| 860-100-024                             | USA                  | 481.23 Acres; The Southwest Quarter and the North half of Section, 3, Township 7 South, Range 18 East                                                                                                                                                     |
| 860-100-022                             | USA                  | 483.40 Acres; The Southwest Quarter and the North half of Section, 3, Township 7 South, Range 18 East                                                                                                                                                     |
| 810-392-006                             | USA                  | 316.71 Acres; The South half of Section 34, Township 16 South, Range 18 East                                                                                                                                                                              |
| 810-392-003                             | USA                  | 40.00 ACRES M/L IN POR SE 1/4 OF SEC 33 T6S R18E                                                                                                                                                                                                          |
| 810-392-001                             | CASPER FAMILY TRUST  | 124.42 ACRES M/L IN POR SE 1/4 OF SEC 33 T6S R18E                                                                                                                                                                                                         |
| 810-392-002                             | USA                  | 179.25 ACRES M/L IN POR W 1/2 OF SEC 33 T6S R18E                                                                                                                                                                                                          |
| 810-391-002                             | USA                  | 220.50 Acres; The Northwest Quarter and the North half of the Northeast Quarter of Section 33, Township 6 South, Range 18 East                                                                                                                            |
| 810-382-001                             | USA                  | 67.46 ACRES M/L IN POR N 1/2 OF SEC 32 T6S R18E                                                                                                                                                                                                           |
| 810-352-008                             | USA                  | 273.27 ACRES M/L IN POR S 1/2 OF SEC 29 T6S R18E                                                                                                                                                                                                          |
| 810-352-005                             | LOAN THIVU TUYET     | 80.00 Acres; The South half of the Northwest Quarter of Section 29, Township 6 South, Range 18 East                                                                                                                                                       |
| 810-352-006                             | USA                  | 223.16 ACRES M/L IN POR SEC 30 T6S R18E                                                                                                                                                                                                                   |
| 810-320-001                             | USA                  | 653.83 ACRES M/L IN POR SEC 19 T6S R18E                                                                                                                                                                                                                   |
| 810-262-005                             | USA                  | 266.59 ACRES M/L IN POR SEC 24 T6S R17E                                                                                                                                                                                                                   |
| 810-262-004                             | WESTERN OILFIELDS    | 122.62 Acres; The Northwest quarter of Section 24, Township 6 South, Range 17 East                                                                                                                                                                        |
| 810-241-003                             | USA                  | 480.00 ACRES M/L IN POR SEC 13 T6S R17E                                                                                                                                                                                                                   |
| 810-241-002                             | USA                  | 563.79 ACRES M/L IN POR SEC 14 T6S R17E                                                                                                                                                                                                                   |
| 810-232-023                             | ESTELLE AMOU ASENSI  | 57.56 ACRES; THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 AND THE EAST 1/2 OF THE NORTHEAST HALF OF THE NORTHEAST QUARTER OF SECTION 15, TOWNSHIP 6 SOUTH, RANGE 17 EAST                                                                                        |
| 810-232-013                             | RODERICK T WARING    | 10.00 Acres; The East One-Half of the Northwest Quarter of the Northeast Quarter of the Northeast Quarter and the East One-Half of the Southwest Quarter of the Northeast Quarter of the Northeast Quarter of Section 15, Township 6 South, Range 17 East |
| 810-232-012                             | ADAPA SATYA          | 10.00 ACRES IN POR NE 1/4 OF SEC 15 T6S R17E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                                                                                                                                     |
| 810-232-011                             | VERONICA C EVANS     | 20.00 Acres; The North One-Half of the Northwest Quarter of the Northeast Quarter of Section 15, Township 6 South, Range 17 East                                                                                                                          |
| 810-232-014                             | USA                  | 63.48 ACRES M/L IN POR NW 1/4 OF SEC 15 T6S R17E                                                                                                                                                                                                          |
| 810-211-002                             | USA                  | 636.45 ACRES M/L IN POR SEC 10 T6S R17E                                                                                                                                                                                                                   |
| 810-211-001                             | USA                  | 361.43 ACRES M/L IN POR SEC 9 T6S R17E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                                                                                                                                           |
| 810-202-002                             | USA                  | 606.15 ACRES M/L IN POR SEC 8 T6S R17E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                                                                                                                                           |
| 810-181-003                             | USA                  | 41.22 ACRES M/L IN POR SW 1/4 OF SEC 5 T6S R17E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                                                                                                                                  |
| 810-181-001                             | USA                  | 493.08 ACRES M/L IN POR SEC 6 T6S R17E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                                                                                                                                           |
| 811-240-006                             | USA                  | 640.00 ACRES M/L IN POR SEC 1 T6S R16E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                                                                                                                                           |
| 811-240-005                             | USA                  | 640.00 ACRES M/L IN POR SEC 2 T6S R16E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                                                                                                                                           |
| 811-221-002                             | USA                  | 559.39 ACRES M/L IN POR SEC 34 T5S R16E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                                                                                                                                          |
| 811-221-001                             | USA                  | 640.00 ACRES M/L IN POR SEC 33 T5S R16E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                                                                                                                                          |
| 811-190-014                             | USA                  | 645.64 ACRES M/L IN POR SEC 32 T5S R16E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                                                                                                                                          |
| 811-202-001                             | USA                  | 278.81 ACRES M/L IN POR SEC 30 T5S R16E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                                                                                                                                          |
| 808-122-004                             | USA                  | 393.17 ACRES M/L IN POR SEC 25 T5S R15E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                                                                                                                                          |
| 808-122-003                             | USA                  | 320.00 ACRES M/L IN POR S 1/2 OF SEC 26 T5S R15E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                                                                                                                                 |
| 808-092-004                             | USA                  | 200.00 ACRES IN POR S 1/2 OF SEC 27 T5S R15E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                                                                                                                                     |
| 808-055-006                             | USA                  | 640.00 ACRES M/L IN POR SEC 34 T5S R15E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                                                                                                                                          |
| 808-055-005                             | USA                  | 320.00 ACRES M/L IN POR N 1/2 OF SEC 33 T5S R15E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                                                                                                                                 |
| 808-130-011                             | USA                  | 560.00 ACRES M/L IN POR SEC 32 T5S R15E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                                                                                                                                          |
| 808-130-006                             | GOLDEN MONKEY INC.   | 160.00 ACRES IN POR NE 1/4 OF SEC 31 T5S R15E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                                                                                                                                    |
| 808-130-004                             | MARY URSEGAY         | 40.00 Acres; The Northeast Quarter (NE1/4) of the Southeast Quarter (SE1/4) of Section 31, Township 5 South, Range 15 East                                                                                                                                |
| 808-130-010                             | GOLDEN MONKEY INC.   | 120.00 Acres; The South one half of Section 31, Township 5 South, Range 15 East                                                                                                                                                                           |
| 808-130-009                             | GOLDEN MONKEY INC.   | 222.45 Acres; Government Lot 1 and Government Lot 2 in the Northwest quarter of Section 31, Township 5 South, Range 15 East                                                                                                                               |

| Notice of Intent                        |                                          |                                                                                                                                              |
|-----------------------------------------|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Blythe Energy Project Transmission Line |                                          |                                                                                                                                              |
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| APN                                     | OWNER NAME                               | SHORT LEGAL DESCRIPTION                                                                                                                      |
| 808-130-008                             | GOLDEN MONKEY INC.                       | 88.33 ACRES M/L IN POR SW 1/4 OF SEC 31 T5S R15EE FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                   |
| 811-052-007                             | GOLDEN MONKEY INC.                       | 287.62 ACRES M/L IN POR E 1/2 OF SEC 36 T5S R14EE FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                   |
| 811-052-019                             | STATE OF CALIFORNIA                      | 91.39 ACRES NET IN POR W 1/2 OF SEC 36 T5S R14E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                     |
| 811-052-021                             | GOLDEN MONKEY INC.                       | 150.48 ACRES NET IN POR W 1/2 OF SEC 36 T5S R14EE FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                   |
| 811-052-009                             | JAMES BOWMAN E & SUSANE                  | 105.02 ACRES M/L IN POR E 1/2 OF SEC 35 T5S R14EE FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                   |
| 811-052-005                             | MARY URSEGAY                             | 72.00 ACRES M/L IN POR E 1/2 OF SEC 35 T5S R14E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                     |
| 811-052-017                             | AMERI. LAND LIQUIDATOR/BLYTHE ENERGY LLC | 10.00 ACRES IN POR SW 1/4 OF SEC 35 T5S R14E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                        |
| 811-052-012                             | GEORGE LIDDLE                            | 5.00 ACRES IN POR SW 1/4 OF SEC 35 T5S R14E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                         |
| 811-052-008                             | KAO LI YU                                | 73.10 ACRES M/L IN POR W 1/2 OF SEC 35 T5S R14E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                     |
| 811-042-010                             | USA                                      | 186.94 ACRES M/L IN POR S 1/2 OF SEC 34 T5S R14EE FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                   |
| 811-072-008                             | USA                                      | 454.58 Acres; Sections 3 and 4, excepting from said Section 4 the Northwest Quarter, in Township 6 south, Range 14 East                      |
| 811-072-001                             | MAX COHEN                                | 160.00 Acres; Northwest quarter, Section 3, Township 6 South, Range 14 East                                                                  |
| 811-072-006                             | USA                                      | 86.56 ACRES M/L IN POR SEC 4 T6S R14E                                                                                                        |
| 811-072-011                             | M.W.D.                                   | 45.10 ACRES M/L IN POR SW 1/4 OF SEC 3 T6S R14E AND POR SEC 4 T6S R14E                                                                       |
| 811-072-005                             | USA                                      | 378.12 ACRES M/L IN POR SEC 4 T6S R14E                                                                                                       |
| 811-072-002                             | JANE G. HIRD                             | 151.72 Acres; That part of Government Lots 1 and 2 of the Northwest Quarter of Section 4, Township 6 South, Range 14 East                    |
| 811-062-014                             | USA                                      | 429.02 ACRES M/L IN POR SW 1/4 OF SEC 5 T6S R14EE FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                   |
| 811-062-016                             | USA                                      | 303.23 ACRES M/L IN POR SEC 6 T5S R14E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                              |
| 811-080-001                             | USA                                      | 274.95 ACRES M/L IN POR N 1/2 OF SEC 7 T6S R14E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                     |
| 709-390-002                             | USA                                      | 640.00 ACRES M/L IN POR SEC 12 T6S R13E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                             |
| 709-390-001                             | USA                                      | 640.00 ACRES M/L IN POR SEC 11 T6S R13E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                             |
| 709-380-009                             | USA                                      | 628.10 ACRES M/L IN POR SEC 10 T6S R13E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                             |
| 709-380-002                             | FAIRMAN MOINFAR & TAHEREH                | 145.73 ACRES M/L IN POR SEC 9 T6S R13E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                              |
| 709-380-005                             | I.I.D.                                   | 81.67 ACRES IN POR E 1/2 OF SEC 9 T6S R13E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                          |
| 709-380-006                             | CARO MINAS                               | 59.81 ACRES IN POR E 1/2 OF SEC 9 T6S R13E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                          |
| 709-380-004                             | GEORGE RICHARD WHEELOCK                  | 138.44 ACRES M/L IN POR SEC 9 T6S R13E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                              |
| 709-380-003                             | WARREN W HAMILTON                        | 135.10 ACRES M/L IN POR SEC 9 T6S R13E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                              |
| 709-370-013                             | USA                                      | 499.58 ACRES M/L IN POR SEC 8 T6S R13E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                              |
| 709-370-012                             | USA                                      | 92.73 ACRES M/L IN POR N 1/2 OF SEC 8 T6S R13E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                      |
| 709-340-001                             | M.W.D.                                   | 642.80 Acres; Section 5, Township 6 South, Range 13 East, in the County of Riverside, State of California, San Bernardino Base and Meridian. |
| 705-230-040                             | M.W.D.                                   | 538.00 ACRES IN POR SEC 32 T5S R13E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                                 |
| 705-230-041                             | M.W.D.                                   | 640.00 ACRES M/L IN POR SEC 33 T5S R13E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                             |
| 705-230-031                             | M.W.D.                                   | 405.69 ACRES IN POR SEC 28 T5S R13E FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS                                                                 |

## **Appendix G**

### **Copy of Lease Agreement between Western and Blythe Energy**



**AUTHENTICATED COPY**

**United States  
Department of Energy**

**WESTERN AREA  
POWER ADMINISTRATION**

**Desert Southwest  
Regional Office**

# **CONTRACT**

**CONTRACT NO. 09-DSR-11995**

**BETWEEN**

**THE UNITED STATES  
DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION  
Desert Southwest Region  
Parker-Davis Project**

**AND**

**BLYTHE ENERGY, LLC**

**FOR**

**FACILITY USE LICENSE FOR BUCK BOULEVARD SUBSTATION**

**CONTRACT NO. 09-DSR-11995**

**BETWEEN**

**UNITED STATES  
DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION  
Desert Southwest Region  
Parker-Davis Project  
Central Arizona Project  
Pacific Southwest-Pacific Northwest Intertie Project**

**AND**

**BLYTHE ENERGY, LLC**

**FOR**

**FACILITY USE LICENSE FOR BUCK BOULEVARD SUBSTATION**

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**CONTRACT NO. 09-DSR-11995**

**BETWEEN**

**UNITED STATES  
DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION  
Desert Southwest Region  
Parker-Davis Project  
Central Arizona Project  
Pacific Southwest-Pacific Northwest Intertie Project**

**AND**

**BLYTHE ENERGY, LLC**

**FOR**

**FACILITY USE LICENSE FOR BUCK BOULEVARD SUBSTATION**

1. **PREAMBLE:** This Contract is made this 22 day of May, 2009, pursuant to the Acts of Congress approved June 17, 1902 (32 Stat. 388); August 4, 1939 (53 Stat. 1187); May 28, 1954 (68 Stat. 143); August 4, 1977 (91 Stat. 565); and Acts amendatory or supplementary to the foregoing Acts, between the UNITED STATES OF AMERICA, Department of Energy, acting by and through the Administrator of Western Area Power Administration, hereinafter called Western, represented by the officer executing this Contract or a duly appointed successor; and **BLYTHE ENERGY, LLC**, organized and existing under the laws of the State of Delaware (Contractor), its successors and assigns; each sometimes individually called Party and both sometimes collectively called Parties.

2. **EXPLANATORY RECITALS:**

- 2.1 Western operates and maintains an electrical system known as the Parker-Davis Project Transmission System (Transmission System).
- 2.2 Contractor desires to obtain an irrevocable license from Western for use of the Buck Boulevard Substation facilities (Buck).
- 2.3 The Parties desire to provide herein for ownership, operation, maintenance, and replacement of the Buck facility.
- 2.4 The Parties agreed that Buck will initially be connected to Western's system and will be electrically disconnected prior to the start of a new Purchase Power Agreement with adjacent Balancing Authorities on August 1, 2010.
- 2.5 The Parties desire to enter into this Licensing Contract (Contract).

3. **AGREEMENT:** The Parties agree to the terms and conditions set forth herein.

4. **TERMINATION/REVISION OF PRIOR AGREEMENT(S):**

- 4.1 Contract No. 01-DSR-11300, dated June 13, 2002, as supplemented or amended, and other contracts, as they may apply, shall be revised or terminated effective when Contractor electrically disconnects from Western's system.

5. **TERM OF CONTRACT:**

- 5.1 This Contract shall become effective on May 1, 2010, and shall remain in effect until midnight, May 31, 2013, unless terminated earlier pursuant to subsection 5.2. All obligations pursuant to this Contract incurred prior to its termination shall be preserved until satisfied.

- 5.2 Contractor may terminate this Contract upon twelve (12) months advance written notice to Western after the first year of the Contract. Such notice shall include the date upon which Contractor's facilities are to be disconnected from the Transmission System and removed in accordance with Section 12, herein. The Parties acknowledge and agree that this Contract is an irrevocable license which may be terminated only pursuant to this subsection or Section 13 of this Contract, or expire by its terms.
6. **RIGHT OF ENTRY**: Western, under the terms and conditions specified herein, hereby grants to Contractor, its employees, agents, and subcontractors, a right to enter Western's easements and rights-of-way to perform operation and maintenance of Buck during the term of this Contract. Western has granted Contractor a right of early access to the Buck facility, including the easements and rights-of-way, for the period beginning June 1, 2009, and ending on midnight of May 1, 2010, for the purpose of assessing the Buck Substation and performing make ready work (the "Early Access Period"). Contractor shall provide Western with a formal scope of work to be performed at Buck during the Early Access Period prior to June 1, 2009, for Western's prior review and approval, which approval shall not be unreasonably withheld, conditioned or delayed.
7. **OWNERSHIP**: Ownership of Buck shall remain with Western. Upon termination of this Contract, use of Buck shall return to Western absent a subsequent agreement for an alternative use of the facility.
8. **OUTAGES**: During that portion of the term of this Contract that Buck remains connected to Western's Transmission System, the work being performed under this Contract may result in one or more planned or unplanned outages to the Transmission

System. During that portion of the term of this Contract that Buck remains connected to Western's Transmission System, the Contractor hereby agrees to indemnify and hold Western harmless from any loss and from any liability associated with the curtailment of transmission and/or generation resulting from Contractor or Contractor's agents' actions or failure to act resulting in such outage, including claims from Western's customers, except if such outage is caused by the gross negligence or willful misconduct of Western.

9. **OPERATION OF FACILITIES:**

- 9.1 During that portion of the term of this Contract that Buck remains connected to Western's Transmission System, the Parties agree to establish standard operating procedures to govern the control and operation of facilities referenced in this Contract, including the Security Regulations attached hereto as Attachment 1.
- 9.2 The Parties agree that Buck shall be operated by the Contractor, but shall remain in the sole possession of Western. The Parties also agree that, in the case of construction of new facilities or the modification of existing facilities, the Parties shall collaborate and mutually agree to arrangements which result in a reliable and safe operational configuration.

10. **MAINTENANCE AND REPLACEMENT OF FACILITIES:**

- 10.1 Operation and maintenance of Buck, shall be performed by Contractor or its agent at Contractor's expense during the term of this Contract.
- 10.2 Contractor shall provide to Western annually its Maintenance Schedule, as well as a layout of its overall maintenance plan.
- 10.3 Exhibit B.BKB of Contract No. 01-DSR-11300 shall be revised to provide for the change in operation and maintenance responsibilities.

- 10.4 During that portion of the term of this Contract that Buck remains connected to Western's Transmission System, Western may perform emergency maintenance at Buck in accordance with Contract No 01-DSR-11300.
- 10.5 Western's existing Maintenance Schedule for Buck will be provided to the Contractor prior to June 1, 2009.
11. **DISCONNECT/RECONNECT COSTS:** Contractor shall be solely responsible for any and all costs for Western to disconnect its transmission line connection in Bay Nos. 5 and 6 from the Buck Substation. Upon termination of this Contract, Contractor shall also be responsible for any and all costs for Western to reconnect its transmission line connection to the Buck Substation, absent a subsequent agreement for alternative use of the facility. Costs to disconnect and/or reconnect to the Buck Substation shall be paid in accordance with Exhibit A.
12. **RESTORATION OF FACILITIES:** Contractor, at its sole expense, shall remove the relevant Contractor owned equipment from Western's facilities and shall restore the facility in or on which the equipment was installed to its original condition or to a condition satisfactory to Western. If the equipment is not removed and the property restored to a satisfactory condition within one hundred twenty (120) days, Western may, at no cost or expense to Western, assume ownership of the equipment and, at its discretion, (i) use the equipment at no cost, (ii) dispose of it in a manner consistent with sound business principles, or (iii) may choose to restore the facilities to its original or satisfactory condition. In the event Western sells salvaged equipment, any funds remaining after deducting Western's costs of removal, disposal, and appropriate allocable expenses, will be returned to Contractor without interest whatsoever. Should sale of the

salvaged facilities fail to meet Western's cost of removal and disposal, Contractor shall pay Western the difference upon demand. If Western chooses to restore the facilities, the Contractor shall pay Western for the cost of restoration upon demand. Contractor agrees to indemnify and hold Western harmless from any loss and from any liability arising from Contractor's failure to remove the equipment.

13. **COMPENSATION:** Contractor shall pay to Western a license fee for use of Buck in the amount of Twenty Thousand Dollars (\$20,000) per month during the term of this Contract. Failure by Contractor to pay such fee thirty (30) days after Contractor's receipt of written notice of such default sent from Western, may at Western's sole discretion result in loss of license and use of Buck by Contractor, and termination of this Contract. Payments shall be made in accordance with Exhibit B, attached hereto.
14. **CONTROL AND POSSESSION OF SYSTEMS:** Western shall remain in possession of Buck, and this Contract shall not be construed to grant Contractor any rights of ownership, control, or possession of Western's system. Notwithstanding the foregoing, Contractor shall, during the term of this Contract, have exclusive use and control of Buck and Western shall have no operational control over any equipment at Buck during the Contract term, except as provided in subsection 10.4 of this Contract.
15. **SPECIAL PROVISIONS:** As part of the negotiation process for the construction, operation, maintenance, and replacement of facilities, the Parties may agree upon additional special provisions associated with such facilities. Such special provisions may include future upgrades, enlargements, betterments, or additional facility construction, exchange of equipment, use of rights-of-way or facilities of either Party, and similar special terms and conditions. All special provisions shall be included in an appropriate

exhibit which details the responsibility of the Parties for ownership, operation, maintenance, and replacement of facilities associated with the special provisions.

16. **AMENDMENTS AND MODIFICATIONS:** This Contract may be amended or modified only by an amendment or modification duly executed by the Parties.
17. **EXHIBITS:** Inasmuch as certain provisions of this Contract may change during the term of this Contract, they will be set forth in exhibits as formulated and modified from time to time and as agreed upon by the Parties in writing. The initial exhibits are attached hereto, and each is incorporated into this Contract in accordance with its respective terms until superseded by a subsequent exhibit. Changes, additions, or modifications to the facilities shall be reflected in new or revised exhibits.
18. **ATTACHMENTS:** Inasmuch as certain terms of this Contract may change during the term of this Contract, they will be set forth in attachments as formulated and modified from time to time and will be distributed in accordance with Provision 40 of Western's General Power Contract Provisions.
19. **GENERAL POWER CONTRACT PROVISIONS:** The General Power Contract Provisions (GPCP), dated September 1, 2007, attached hereto, are hereby made a part of this Contract the same as if they had been expressly set forth herein; provided, that if the provisions in the GPCP are in conflict with this Contract, the terms of this Contract shall control.
20. **SUCCESSOR AND ASSIGNS:** This license shall be binding on the successors or assigns of Contractor and Western; however, it shall not be assigned by Contractor without prior written consent of Western.

21. **AUTHORITY TO EXECUTE:** Each individual signing this Contract certifies that the Party represented has duly authorized such individual to execute this Contract that binds and obligates the Party.

The Parties have caused this Contract No. 09-DSR-11995 to be executed the date first written above.

DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION

By  \_\_\_\_\_

Darrick Moe

Title Regional Manager

Address Desert Southwest Region

P.O. Box 6457

Phoenix, Arizona 85005-6457

BLYTHE ENERGY, LLC

By  \_\_\_\_\_

Title Vice President

Address 700 Universe Boulevard

Juno Beach, Florida 33408

**DISCONNECT/RECONNECT CHARGES**

1. This Exhibit A, effective under and as a part of Contract No. 09-DSR-11995 (Contract), shall become effective on May 1, 2010, and shall remain in effect until superseded by another Exhibit A; provided this Exhibit A or any superseding Exhibit A shall terminate upon expiration of the Contract.
2. Cost incurred for Western to Disconnect/Reconnect at Buck Boulevard Substation shall be paid in advance by the Contractor. The Disconnect/Reconnect Charge shall be in the amount of Fifteen Thousand Dollars (\$15,000) for each occurrence, paid in advance prior to the work to be performed by Western, and in accordance with Section 4 of this Exhibit.
3. The Parties to the Contract may review the Reconnect Charges at the end of this Contract and shall as necessary revise the Reconnect Charges appropriately.
4. If you are sending your payment via **Electronic Funds Transfer (EFT)**, (New York Federal Reserve Bank), please provide your bank with the following information:

ABA (Routing Identifier): 021030004

ALC (Agency Locator Code): 890001602

If you are sending your payment via **Automatic Clearing House (ACH)**, (Richmond Federal Reserve Bank), please provide your bank with the following information:

ABA (Routing Identifier): 051036706

Account Number: 312003

5. This Exhibit A to Contract No. 09-DSR-11995 may be modified in accordance with Section 17 of this Contract.

**COMPENSATION**

1. This Exhibit B, effective under and as a part of Contract No. 09-DSR-11995 (Contract), shall become effective on May 1, 2010, and shall remain in effect until superseded by another Exhibit B; provided this Exhibit B or any superseding Exhibit B shall terminate upon expiration of the Contract.
2. Western shall invoice Contractor on a monthly basis for the license of Buck Boulevard Substation. Such invoices will be submitted to Contractor for immediate payment in full prior to each month of service under this Contract.
3. If you are sending your payment via **Electronic Funds Transfer (EFT)**, (New York Federal Reserve Bank), please provide your bank with the following information:

ABA (Routing Identifier): 021030004

ALC (Agency Locator Code): 890001602

If you are sending your payment via **Automatic Clearing House (ACH)**, (Richmond Federal Reserve Bank), please provide your bank with the following information:

ABA (Routing Identifier): 051036706

Account Number: 312003
4. This Exhibit B to Contract No. 09-DSR-11995 may be modified in accordance with Section 17 of this Contract.

**SECURITY REGULATIONS**

1. If Contractor or Contractor's representative needs to access a Western-owned or controlled facility, the following procedure shall be followed:
  - 1.1 There must be an expressed need to enter the facility.
  - 1.2 Where access is controlled through the use of a Western-issued access control device (i.e. substation key, card key, combination, or any other controlled token necessary to gain access), it shall be requested by Contractor or Contractor's representative from Western's Safety and Security Office.
  - 1.3 If an access control device is provided to the Contractor or Contractor's representative, the Contractor will be responsible to assure only authorized personnel are issued access control devices to the authorized Western facilities.
  - 1.4 If a single-access control device is used to allow access to a Western facility for one or more of a group of individuals employed by the Contractor or Contractor's representative, a record must be kept by the Contractor or Contractor's representative to track use of the access control device. When the access control device is not in use, it shall be kept in a secure location by the Contractor or Contractor's representative.
2. Contractor or Contractor's representative, when granted a Western-issued access control device, has the following responsibilities:
  - 2.1 If an access control device is lost or compromised, it must be reported immediately to the Safety and Security Office. The Safety and Security Office can be contacted by calling Western's reception desk at (602) 605-2525, request

to speak to the Safety and Security Office, or fax the information to  
(602) 605-2589.

- 2.2 If an individual resigns or is no longer employed by Contractor or Contractor's representative, the access control device is non-transferable and shall be returned to Western's Safety and Security Office immediately.
- 2.3 If the individual leaves Contractor or Contractor's representative employment and does not return the issued access control device, Contractor or Contractor's representative must immediately notify Western's Safety and Security Office by phone, as described in subsection 2.1 herein.
3. All non-U.S. Citizen Foreign National Contractor or Contractor's employees, sub-contractor employees, consultant or visiting representative participating in work which involves access to Western facilities, or Western information that is not releasable to the public, shall comply with all requirements of the Western Unclassified Foreign Visits and Assignments Program (WAPA O 470.1, Chapter 13, as amended), in Attachment No. 2, attached hereto.
  - 3.1 The Contractor shall provide an accurate and complete Foreign National Data Card, WAPA Form 3000-72, Attachment No. 3 attached hereto, for each of their Foreign National employees that may visit or work at any Western facility. The form must be submitted 30 days prior to the visit or assignment, unless the Foreign National is from a *sensitive* country (See WAPA O 470.1, Chapter 13, as amended, for a web site listing of sensitive countries), and then the form must be submitted at least 45 days in advance of the visit or assignment to the Western Security Manager. Submit WAPA Form 3000-72 to:

Attachment No. 1  
Contract No. 09-DSR-11995  
BLYTHE ENERGY, LLC

Safety and Security Office  
Desert Southwest Region  
Western Area Power Administration  
615 S. 43<sup>rd</sup> Avenue  
Phoenix, AZ 85009

4. If you have a question regarding these requirements, please call Western's reception desk.
5. These Attachments No. 1, 2, and 3 to Contract No. 09-DSR-11995 may be modified in accordance with Section 18 of this Contract.

WAPA O 470.1E  
10-17-05

CHAPTER 13  
FOREIGN VISITS AND ASSIGNMENTS

32

1. POLICY. All Foreign Visits and Assignments must be entered into the Foreign Access Central Tracking System (FACTS). This Policy includes all contractors working for Western who are not U.S. citizens.

2. REFERENCES.

a. DOE O 142.3, Unclassified Foreign Visits and Assignments.

3. PROCEDURES. FACTS is the official DOE system for monitoring, tracking, and approving all Foreign Visits and Assignments to DOE facilities. Western has access to FACTS through the Corporate Service Office, Safety and Security Office.

a. Foreign visits (30 days or less) and assignments (more than 30 days) will be managed consistent with DOE requirements.

b. The sponsoring host must complete WAPA Form 3000.72, Foreign National Data Card, and submit it to the Regional Manager or Administrator for signature and then forward to the CSO Security Office, A7700, 30 days prior to the visit or assignment.

c. The following information on each foreign visitor and assignee shall be reported:

(1) Personal information including date of birth, place of birth, place of employment, and permanent address.

(2) Passport, Visa, and Immigration and Naturalization Service information.

(3) Detailed explanation of the purpose for the visit or assignment.

(4) Actual dates, subjects, and areas to be visited.

(5) Name and phone number of the host who will be escorting the visitor or assignee.

(6) Any other pertinent information the host feels reportable.

d. If the foreign visitor or assignee is from a **sensitive** country, the information must be forwarded to the CSO Security Officer, and then on to the DOE Counterintelligence Office a minimum of 45 days in advance of the visit or assignment for a background check to be completed. DOE Headquarters will have final determination on approving or denying the visit or assignment.

A list of current sensitive countries is located at the following web site  
<http://www.cso.wapa.gov/cpo/3700/security/sensitivecountries.htm>.

**INSTRUCTIONS FOR PREPARING Foreign National Data Card for Unclassified Foreign Visits and Assignments to WAPA (WAPA F 3000-72#- 6-03)**

**Routing of Form:**

- ☐ 1. Requestor- Meeting host initiates the form at least 30-45 days before planned visit
- ☐ 2. Regional Manager (or Acting Official) for approval signature
- ☐ 3. Original to Regional Safety and Security Office (The Safety and Security office reviews and sends to Pam Garcia- CSO)
- ☐ 4. Pam Garcia (CSO- A7700) (Conducts required back-ground checks and approves visit)
- ☐ 5. Approval sent to Regional Safety and Security Officer
- ☐ 6. Regional Safety and Security Officer notifies host and front desk personnel of approval/denial

**To allow time for background checks, this form must be completed at least 30 days for non-sensitive countries visitors, and 45 days for visitors from sensitive countries.**

**For more information and a list of sensitive countries go to:  
<http://www.cso.wapa.gov/cpo/3700/SECURITY/fva.htm>**

(Failure to complete this approval process may result in denial of visit.)

**Section A – PERSONAL DATA INFORMATION**

- BLOCK 1. Employee name: Last name; first name, middle name
- BLOCK 2. Select Male or Female: Place a check mark in the appropriate box
- BLOCK 3. Country of Birth: Spell out. No abbreviations
- BLOCK 4. City of Birth: Spell out. No abbreviations
- BLOCK 5. Permanent Address: Self-explanatory
- BLOCK 6. Date of Birth: Month/Day/Year
- BLOCK 7. Social Security Number: Self-explanatory
- BLOCK 8. Country of Citizenship: Spell out. No abbreviations
- BLOCK 9. Passport/Visa/Immigration Number: One must be supplied
- BLOCK 10. Country of Issue of Passport/Visa/Immigration Number
- BLOCK 11. Expiration Date: of above issued document Month/Day/Year

**Section B – EMPLOYMENT DATA**

- BLOCK 12. International Agreement Code: If one exists the visitor will know it. Not required.
- BLOCK 13. Current Employer/Business Name: Self-explanatory
- BLOCK 14. Business Address: Self-explanatory

**Section C – VISIT DATA INFORMATION**

- BLOCK 15. Buildings/Sites to be Visited: Be specific (note: Must be escorted by host at all times)
- BLOCK 16. Request Date: Date host is submitting this request for approval
- BLOCK 17. Name and Signature of DOE Host: Must be a supervisor
- BLOCK 18. Purpose of Visit: State clear purpose
- BLOCK 19. Technological Area: Be very specific- DO NOT abbreviate
- BLOCK 20. Start Date of Visit: Month/Day/Year
- BLOCK 21. End Date of Visit: Month/Day/Year
- BLOCK 22. Authorized SES Manager Signature: Regional Manager or SES.
- BLOCK 23. Authorized Approval Signature Pam Garcia –visit not approved without this signature

WAPA F  
 3000-72#  
 (6/03)

**FOREIGN NATIONAL DATA CARD**  
**FOR UNCLASSIFIED FOREIGN VISITS AND ASSIGNMENTS**  
**TO WESTERN AREA POWER ADMINISTRATION**  
 Please print clearly

| Personal Data                                                    |  |                                     | SECTION A                             |  |       |
|------------------------------------------------------------------|--|-------------------------------------|---------------------------------------|--|-------|
| 1. Name of Visitor: (Last)                                       |  | (First)                             | (Middle)                              |  |       |
| 2. Male <input type="checkbox"/> Female <input type="checkbox"/> |  |                                     |                                       |  |       |
| 3. Country of Birth:                                             |  | 6. Date of Birth:<br>/ /            | 8. Citizenship:                       |  |       |
| 4. City of Birth:                                                |  | 7. Social Security Number:          | 9. Passport/Visa/Immigration Numbers: |  |       |
| 5. Permanent Address:                                            |  |                                     | 10. Country of Issue:                 |  |       |
|                                                                  |  |                                     | 11. Expiration Date:                  |  |       |
| Employment Data                                                  |  |                                     | SECTION B                             |  |       |
| 12. International Agreement Code:                                |  | 13. Current Employer/Business Name: |                                       |  |       |
|                                                                  |  | 14. Business Address:               |                                       |  |       |
| Visit Data                                                       |  |                                     | SECTION C                             |  |       |
| 15. Buildings/Sites to be Visited:                               |  |                                     |                                       |  |       |
| 16. Request Date:                                                |  | 17. Name and Signature of DOE Host: |                                       |  |       |
| 18. Purpose of Visit:                                            |  |                                     |                                       |  |       |
| 19. Technological Area (Be very specific):                       |  |                                     |                                       |  |       |
| 20. Start Date of Visit:                                         |  | 21. End Date of Visit:              |                                       |  |       |
| 22. Authorized SES Manager - Signature:                          |  |                                     |                                       |  | Date: |
| 23. Security Office Approval - Signature:                        |  |                                     |                                       |  | Date: |

**WESTERN AREA POWER ADMINISTRATION  
GENERAL POWER CONTRACT PROVISIONS**

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## **Appendix H**

### **Copy of Letter from Western Acknowledging and Approving Proposed Substation Use and Change**



**Department of Energy**  
Western Area Power Administration  
Desert Southwest Customer Service Region  
P.O. Box 6457  
Phoenix, AZ 85005-6457

OCT 1 2009

Ms. Mary Dyas  
Compliance Project Manager  
California Energy Commission  
Siting, Transmission, & Environmental  
Protection (STEP) Division  
1516 Ninth Street  
Sacramento, CA 95814

Dear Ms. Dyas;

This letter will serve as confirmation that Western Area Power Administration (Western) is aware, and concurs, with Blythe Energy's proposal to connect the Blythe-Julian Hinds 230-kV Transmission Line to the existing open bus Buck Boulevard Switchyard.

Instead of constructing a gas insulated substation adjacent to the existing switchyard, an additional transmission structure will be installed to facilitate the connection to Buck Boulevard Switchyard. The transmission line from Buck Boulevard that connects to Western's system is scheduled to be disconnected by May 21, 2010, so Western's and Blythe Energy's systems will be separate unconnected systems. Blythe Energy plans to connect to the SCE system by June 1, 2010.

If you have any questions regarding this matter, please don't hesitate to contact the Project Manager, Chuck McEndree, at (602) 605-2790.

Sincerely,

A handwritten signature in black ink, reading "Gary L. Bates", is positioned above the printed name.

Gary L. Bates  
Engineering & Construction  
Manager

## **Appendix I**

### **Copy of Letter from Southern California Edison Requesting California ISO Approval of the Proposed Substation Use and Change**

**Blythe Energy, LLC  
700 Universe Blvd.  
Juno Beach, FL 33408**

---

Via email John.Tucker@sce.com and US Mail

June 2, 2009

Mr. John Tucker  
Southern California Edison  
T&D - Federal Regulation and Contracts  
P. O. Box 800  
Rosemead, CA 91770

RE: Blythe Energy, LLC usage of Buck Blvd substation

John,

This letter serves to confirm the topics discussed recently between you and Gary Hickey.

Specifically, in lieu of building a new gas insulated substation at the Blythe Energy Center, Blythe Energy LLC will utilize the existing Buck Blvd substation as the eastern terminus of the 67-mile transmission line project. The Buck Blvd substation is located immediately adjacent to the Blythe Energy Center and will be utilized pursuant to a license agreement between Blythe Energy, LLC and Western Area Power Administration.

Using the Buck Blvd substation makes good sense for several reasons:

- 1) From an electrical perspective, the transmission line project will be virtually identical to the original plan.
- 2) The environmental impacts will be reduced since the need to build a GIS on vacant property will be eliminated.
- 3) The Buck Blvd substation will be physically disconnected from the WAPA system. Blythe Energy Center will not be physically connected to WAPA or any other system. Thus, there will be no electrical connection between the CAISO and any other system.

If you have any further questions or need any additional information, please contact me at 561-304-5126 or Gary Hickey at 217-877-9718.

Sincerely,



John Goodwin  
Business Director  
Blythe Energy, LLC

cc: Gary Hickey, NextEra Energy Resources, LLC



FOR INTERNAL USE ONLY

Hello David and Songzhe,

This email is related to the Blythe Energy Project 520 MW generator interconnection to the ISO Grid at Julian Hinds via their new 67 mile gen-tie line. SCE, ISO, and Blythe Energy executed the associated LGIA in May 2008 and the interconnection facilities and gen-tie line are currently under construction to meet a desired in-service date of June 1, 2010 (for backfeed).

The eastern terminus of the gen-tie line, as currently shown in the LGIA, is at a new Blythe Energy 230kV switchyard that would be located adjacent to the existing Blythe Energy Project. As you know, the Blythe Energy Project is currently connected to Western's system at Bulk Blvd Substation, and, pursuant to the LGIA among SCE, ISO, and Blythe Energy, will be disconnected from WAPA and directly connected to the ISO Grid upon energization of the interconnection facilities and gen-tie line. The connection to the ISO Grid will be a radial gen-tie connection and there will be no physical connection of the ISO Grid and WAPA's electrical system.

Blythe Energy has informed SCE that they have worked out an arrangement with WAPA that will allow the Blythe Energy Project to terminate the new 67 mile gen-tie line at the existing Buck Blvd substation in lieu of having to construct a new switchyard at the Blythe Energy Project. Under the arrangement, Buck Blvd substation would be physically disconnected from the WAPA system and serve solely as the generator switchyard and eastern terminus for the gen-tie line to the ISO Grid. As with the original configuration, under this arrangement the Blythe Energy Project would be directly connected to the ISO Grid and there would be no electrical connection between the Blythe Energy Project and WAPA or between the ISO Grid and WAPA.

SCE's grid planning and protection personnel have reviewed the proposed configuration and agree that the proposed configuration change is essentially the same as the original plan given the physical location of the existing Buck Blvd substation relative to where the new switchyard would have been constructed, and the fact that there would be no physical connection to WAPA's electrical system at Buck Blvd substation.

SCE is in the process of amending the LGIA which we will forward to the ISO in the next week or so, which, among other things, will include the above termination change.

I have attached a copy of the letter SCE received from Blythe Energy and a one line diagram which shows the proposed termination at Buck Blvd substation.

***Please confirm that the ISO agrees with SCE that the above change is*** acceptable.

Please call me if you have any questions. I would appreciate your response by close of business on Friday, if possible. Thank you.

John Tucker  
Southern California Edison  
T&D - Federal Regulation and Contracts  
(626) 302-8623  
Fax (626) 302-1152

## **Appendix J**

### **List of Property Owners within 1,000 Feet Affected by BEP Change**



201 E. Hobsonway, # 36, Blythe, CA 92225  
1601 North Imperial Avenue, El Centro, CA 92273  
Phone (760) 337-3883 • Fax (760) 337-5997

|                  |                                                               |
|------------------|---------------------------------------------------------------|
| THG Project No.: | <b>632.030E</b>                                               |
| Project Title:   | <b>Blythe Transmission Line (BTL)</b>                         |
| Sheet Content:   | <b>Property Owners within 1000 feet from perimeter of BEP</b> |
| Date:            | <b>October 19, 2009</b>                                       |
| Crew:            |                                                               |

[illegible]