

## DOCKETED

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| <b>Docket Number:</b>   | 16-MISC-01                                                                                 |
| <b>Project Title:</b>   | DCBO Selection Process Workshop                                                            |
| <b>TN #:</b>            | 212010                                                                                     |
| <b>Document Title:</b>  | Request for Qualifications Delegate Chief Building Official Services for the STEP Division |
| <b>Description:</b>     | Request for Qualifications                                                                 |
| <b>Filer:</b>           | Raquel Rodriguez                                                                           |
| <b>Organization:</b>    | California Energy Commission                                                               |
| <b>Submitter Role:</b>  | Commission Staff                                                                           |
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| <b>Docketed Date:</b>   | 6/28/2016                                                                                  |

**Request for Qualifications Delegate Chief  
Building Official Services  
For The  
Siting, Transmission and Environmental  
Protection (STEP) Division  
And The**

**[Insert Project Name & AFC#]**

**Compliance Office**



**[RFQ-XX-XXX]**

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State of California  
California Energy Commission

**[DATE 20XX]**

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## I. INTRODUCTION

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### BACKGROUND SUMMARY

The Warren-Alquist Act (Public Resources Code sections 25000 et. seq.) grants the California Energy Commission (Energy Commission) exclusive jurisdiction to regulate the construction, operation, modification and closure of thermal power plants 50 megawatts or greater. To begin the construction or modification process the Project Owner submits to the Energy Commission either an Applications for Certification (AFC) or a Petition to Amend (PTA). The Energy Commission's approval process culminates with the issuance of a Final Decision (Decision). The Decision utilizes new or amended conditions of certification (COCs) to ensure that the power plant will be constructed or modified in accordance with all Energy Commission requirements and all applicable laws, ordinances, regulations and standards (LORS). To aid with the construction or amendment process, the Energy Commission's Siting, Transmission, and Environmental Protection (STEP) Division assigns a Compliance Project Manager (CPM) to assist Energy Commission staff with monitoring all COC and LORS compliance, including the California Building Standards Code (CBSC).

The CBSC is comprised of many code sections applicable to power plant construction or modification including the California Building Code (CBC). The CBC authorizes and directs a Chief Building Official (CBO) to enforce all CBSC provisions (CBC § 104.2). The Energy Commission functions as the CBO for all jurisdictional power plants, and per the code the CBO can designate a Delegate CBO (DCBO) to aid with CBO responsibilities. The DCBOs, as appointed experts, carry out the design review and construction inspections on behalf of the Energy Commission. The DCBO performs this responsibility through 1) engineering plan and technical specification review, analysis and calculation; and 2) DCBO staff or a certified third party for field inspections and testing procedures, including a COC-required independent Safety Monitor. The DCBO also works with Energy Commission staff to enforce local building codes, the Facility Design, Geology and Transmission System Engineering COCs, the Storm Water Pollution Prevention Plan and Erosion Control Plan (SWPPP) and the Drainage, Erosion, and Sediment Control Plan (DESCP), as well as other applicable project LORS to ensure public health and life/safety.

A power plant's COCs define the various design and construction compliance tasks imposed on a Project Owner by the Energy Commission. These tasks may involve the performance of work not typically required by other jurisdictional agencies for other construction projects. The COCs are the compliance road map followed by a power plant project team; it defines how a project is to proceed to completion and subsequently to begin or resume operation. COCs vary from project to project, and the DCBO must understand this fact and become familiar with the site specific COCs applicable to each project. Although the DCBO's oversight is instrumental for COC and LORS compliance, the Energy Commission always retains final authority to ensure the project is built accordingly, and the DCBO has no authority to alter or substitute any COCs.

It is the DCBO's responsibility to ensure design document compliance is achieved by a thorough review of: engineered plans; project specifications; and the design document calculations provided by California-licensed plan review engineers. The DCBO's lead plan reviewers must have verifiable knowledge and experience reviewing high voltage power generating facility construction documents in California. Lastly, the Project Owner's Resident Engineer (RE) is responsible for monitoring the DCBO plan review activities. The DCBO should be aware of this and work closely with the project's RE to help minimize project delays.

The DCBOs are also delegated the authority to conduct project site field inspections. In this capacity, the DCBOs will inspect, write corrections if applicable, and eventually approve and document all CBSC required inspections. This is achieved by providing high quality, certified lead building inspectors that have verifiable experience performing high voltage power generating facility inspections in California.

A project's COCs will also require that qualified special inspectors be assigned to oversee work that requires special inspections by the applicable LORS. The DCBO reviews and approves the project's special inspection program. This review will ensure that the CBSC's special inspection requirements are met. The DCBO will review and approve any potential special inspector proposed, and will oversee the special inspection program for the life of the resulting contract to ensure all requirements are met.

In addition, the COCs require that the Project Owner make payments to the DCBO for the services of a Safety Monitor. The Safety Monitor will be selected by, and report directly to, the DCBO and will be responsible for verifying that the Construction Safety Supervisor, as required by other COCs, is implementing all Division of Occupational Safety and Health (DOSH), better known as Cal/OSHA, and Energy Commission-required safety requirements. The DCBO must provide a Safety Monitor certified from a recognized state, national or international organization as a Safety Professional.

Energy Commission staff recognize that power plant construction or modification can be complex, due in part to the fast-track, design-build nature of such projects, and the potential for worksite hazards. This complexity also requires the DCBOs to use their independent judgment to ensure compliance with a vast array of COCs and LORS. Thus, adequately qualified DCBO Firms require a team of uniquely experienced, licensed and certified professionals with highly technical qualifications specific to high voltage electricity infrastructure. The term "Firm", "Contractor" or "DCBO" used in this Request for Qualification (RFQ) all refer to the company or entity submitting a Statement of Qualifications (SOQ).

The AFC [or PTA] process for the [PROJECT] (XXX) (XX-AFC-XX) began on [DATE]. The [PROJECT] is located [INSERT PROJECT DESCRIPTION]. The [PROJECT] proposes to start initial construction (or major modifications) on [DATE] and begin (or resume) commercial operation by [DATE]. Additional information regarding the specific power generation equipment and linear facilities required for the [PROJECT] can be

found in [APPENDIX X] and comprehensive information, including the AFC and the Energy Commission Decision(s), are found at the [PROJECT'S] website [INSERT HYPERLINK]

The result of this DCBO RFQ process will be an invitation to enter into a professional services agreement between the successful Firm and the Energy Commission to act as the Energy Commission's DCBO for the [XX Project].

The successful DCBO Firm shall enter into a separate contract with the Project Owner for the payment of DCBO services provided. The Energy Commission is using this RFQ process to procure an independent and highly qualified DCBO Firm for the [XX Project]. Payments to the DCBO Firm for work satisfactorily completed may be paid directly to the DCBO Firm in advance, in arrears, or from a credit account established with the DCBO by the Project Owner.

### PURPOSE OF THIS RFQ

The purpose of this RFQ is to initiate a competitive bid process to select a highly qualified DCBO for the [PROJECT NAME]. With the DCBO's assistance, the Compliance Office can ensure that the [XX Project] is built, [or modified] on schedule and in accordance with all COCs.

The Energy Commission is seeking one team of technical specialists led by a contractor. A single Firm, and not a group of representatives from different companies, must submit an SOQ as the prime contractor. The prime contractor will be responsible for all contract administrative duties, analysis, project management, report preparation, quality assurance, graphics support services, direction of team members in all contract provisions, and participation in technical work assignments. The contractor and the team can be from the same pre-existing organization, such as a full service consultant Firm, or they can be from separate organizations (or self-employed) and form a partnership that can successfully work together for purposes of this RFQ.

### KEY ACTIVITIES AND DATES

Key activities including dates and times for this RFQ are presented below. An addendum will be released if the dates change for the asterisked (\*) activities.

| ACTIVITIES                                          | ACTION DATE             |
|-----------------------------------------------------|-------------------------|
| RFQ Release                                         | To Be Determined by CAO |
| Pre-Bid Conference*                                 | To Be Determined by CAO |
| Written Question Submittal Deadline by 3:00 p.m.*   | To Be Determined by CAO |
| Distribute Questions / Answers and Addenda (if any) | To Be Determined by CAO |
| Deadline to submit SOQ by 3:00 p.m.*                | To Be Determined by CAO |
| SOQ Discussions with Firms*                         | To Be Determined by CAO |
| Notice of Selection                                 | To Be Determined by CAO |
| Cost Negotiations                                   | To Be Determined by CAO |
| Notice of Proposed Award                            | To Be Determined by CAO |
| Energy Commission Business Meeting                  | To Be Determined by CAO |
| Contract Start Date                                 | To Be Determined by CAO |
| Contract End Date                                   | TBD*                    |

\* Contract end date will be evidenced by issuance of the Final Occupancy Permit for the project

## **CONTRACT AMOUNT**

The contract amount between the Energy Commission and the selected DCBO Firm will be zero dollars. The DCBO Firm will be reimbursed through a separate agreement with the Project Owner. The Energy Commission will be an expressly named third-party beneficiary to the agreement between the DCBO Firm and the Project Owner.

## **FIRM ELIGIBILITY**

This solicitation is restricted to public and private entities that can meet the requirements of this solicitation and agree to the attached terms and conditions that will be included in the resulting agreement.

All corporations, limited liability companies (LLCs) and limited partnerships (LPs) are required to register and be in good standing with the California Secretary of State to enter into an agreement with the Energy Commission. If not currently registered with the California Secretary of State, applicants are encouraged to contact the Secretary of State's Office as soon as possible to avoid potential delays in beginning the proposed project(s) (should the application be successful). For more information, contact the Secretary of State's Office via its website at [www.sos.ca.gov](http://www.sos.ca.gov).

## **PRE-BID CONFERENCE**

There will be one Pre-Bid Conference; participation in this meeting is optional but encouraged. The Pre-Bid Conference will be held at the date, time and location listed below. Please call (916) 654-4381 or refer to the Energy Commission's website at [www.energy.ca.gov/contracts](http://www.energy.ca.gov/contracts) to confirm the date and time.

**[INSERT START TIME ONLY]**

California Energy Commission

**[INSERT ROOM LOCATION]**

1516 9th Street

Sacramento, CA 95814

Telephone: (916) 654-4381

## **QUESTIONS**

During the RFQ process, questions of clarification about this RFQ must be directed to the Commission Agreement Officer (CAO) listed in the following section. Potential Firms shall carefully examine the qualifications and specifications of this RFQ. You may ask questions at the Pre-Bid Conference, and you may submit written questions via mail, electronic mail, and by FAX. All questions must be received by 5:00 pm on the date indicated in the Key Activities and Dates section.

The questions and answers will be posted on the Energy Commission's website at: <http://www.energy.ca.gov/contracts/index.html>.

Any verbal communication with an Energy Commission employee concerning this RFQ is not binding on the State and shall in no way alter a specification, term, or condition of the RFQ. Therefore, all communication should be directed in writing to the CAO listed below.

## **CONTACT INFORMATION**

Commission Agreement Officer  
California Energy Commission  
1516 Ninth Street, MS-18  
Sacramento, California 95814  
Telephone: (916) [INSERT TELEPHONE NUMBER]  
FAX: (916) 654-4423  
E-mail: [CONTRACT AGREEMENT OFFICER]@energy.ca.gov

## **RESPONSES TO THIS RFQ**

Responses to this solicitation shall be in the form of a Statement of Qualifications (SOQ) according to the format described in this RFQ. The SOQ shall detail the DCBO Firm's qualifications to perform the tasks outlined in the Scope of Work.

## **PROJECT SPECIFIC DCBO REFERENCE DOCUMENTS**

Firms responding to this RFQ must familiarize themselves with the [PROJECT NAME] DCBO Best Management Practices Guide ("Guide"), which is included as Attachment 6 (Exhibit H) of this RFQ package. The Guide provides the Energy Commission's expectations in the performance of the resulting contract and will become part of the final contract. The Guide is solely applicable to the contract between the Energy Commission and the selected Firm. Please see Attachment 6 Exhibit H of the RFQ pack

Important information necessary for responding to this RFQ include the [XX Project's] Final Staff Assessment (FSA), and/or the Presiding Members Proposed Decision (PMPD) and/or any prior relevant Final Decisions (as applicable) [INSERT DOCKETS HYPERLINK(S)]

Additionally, the DCBO Firm should be familiar with the following publications available on-line and at the Energy Commission Library:

Warren-Alquist State Energy Resources Conservation and Development Act, Public Resources Code Section 25000 et seq. (available online at <http://www.energy.ca.gov/2015publications/CEC-140-2015-002/CEC-140-2015-002.pdf>)

Rules of Practice and Procedure Power Plant Site Certification Regulations, California Energy Commission, Publication No. 800-00-006, August 2000 California Code of Regulations, Title 20, Public Utilities and Energy, Division 2, State Energy Resources Conservation and Development Commission available online at: <https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=I6BD74060D44E11DEA95CA4428EC25FA0&originationContext=documenttoc&transitionType=Default&contextData=%28sc.Default%29>

Energy Facility Licensing Process - Developers Guide of Practices & Procedures, California Energy Commission, Publication No. 700-00-007, November 2000 (available online at: [http://www.energy.ca.gov/siting/documents/2000-12-07\\_700-00-007.PDF](http://www.energy.ca.gov/siting/documents/2000-12-07_700-00-007.PDF) (Developer's Guide))

## II. SCOPE OF WORK

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### ABOUT THIS SECTION

In this section, the Energy Commission describes the tasks the DCBO Firm will be asked to perform under the direction of the Energy Commission's CPM. This section also describes the work assignment process and deliverables.

### DCBO WORK REQUIREMENTS

The Energy Commission utilizes the California Code of Regulations, Title 24, Parts 1 through 12, herein referred to as the California Building Standards Code (CBSC) for jurisdictional power plants. The design and construction of all civil, structural, mechanical (except process piping), electrical, and fire prevention facilities must comply with the CBSC, so these codes apply to all power plant construction, modification or closure. Energy Commission DCBOs are required to have total familiarity with them. The CBSC includes the following code parts relevant to power generation facilities and their commonly referenced names:

- Part 1 - California Building Standards Administrative Code
- Part 2 - California Building Code (Volumes 1 and 2)
- Part 3 - California Electrical Code
- Part 4 - California Mechanical Code
- Part 5 - California Plumbing Code
- Part 6 - California Energy Code
- Part 7 - no longer in use
- Part 8 - California Historical Building Code
- Part 9 - California Fire Code
- Part 10 - California Existing Building Code (formally - California Code for Building Conservation)
- Part 11 - California Green Building Code
- Part 12 - California Reference Standards Code

A properly designed, constructed or modified power plant will meet or exceed all applicable LORS. Some of the applicable LORS include, but are not limited to, the list below. Energy Commission DCBOs must have complete familiarity with all applicable LORS.

- American National Standards Institute (ANSI)
- American Petroleum Institute (API)
- American Society of Civil Engineers (ASCE)
- American Society of Mechanical Engineers (ASME)
- American Society for Testing and Materials (ASTM)
- Institute of Electrical and Electronics Engineers (IEEE)

- National Fire Protection Association (NFPA)
- Underwriters Laboratories (UL)
- American Welding Society (AWS)
- National Electrical Code (NEC)
- National Electrical Safety Code

Additional DCBO service LORS of note include, but are not limited to, the California Professional Engineers Act (Business and Professions Code sections 6700-6799), California Professional Land Surveyors' Act (Business and Professions Code sections 8700-8805) and California contractors license laws.

## **DCBO TASKS AND WORK PERFORMANCE**

Contained herein is a generalized version of the roles, responsibilities, and varied tasks expected of a DCBO Firm. Please note that although the DCBO functions as the Energy Commission's delegate, the Energy Commission has the final authority and responsibility to ensure that each power generating facility certified is built or modified in accordance with the Energy Commission's Decision and the applicable LORS.

As an Energy Commission delegate, the DCBO must abide by any interpretation of the CBSC made by the Energy Commission. In addition, all DCBO team members must be approved by Energy Commission staff, including additions or replacement team members.

The DCBO will perform contract administration functions; complete a series of specific plan review, site-inspection, and construction-monitoring and reporting tasks; and provide technical/interpretive support services when necessary. Required DCBO tasks include Tasks 1-7, below.

### **TASK 1 – PROJECT MANAGEMENT (DCBO INFRASTRUCTURE)**

The DCBO shall:

- Attend and participate in Energy Commission team meetings as requested by the CPM.
- Work with the CPM to ensure all pre-construction submittals are complete before issuance of a Notice to Proceed;
- Develop and maintain a password-protected, project-specific website for the posting of the weekly reports and other project documents. The documents on the website will be posted in an MS Word- or Excel-compatible format, and applicable submittals will be converted to .pdf files for the periodic compliance reports (PCRs).
- Provide document security and backup methods to the CPM for review and approval to ensure that the electronic submittal process is secure and data can be re-established if it is lost or damaged.
- Develop and provide an initial hard copy, and an easily referenced and updateable on-line copy, of the "Project-Specific DCBO Project Guide". The



DCBO must update the Guide to include new or updated information that assists with the Energy Commission's compliance requirements. The project-specific DCBO Project Guide will include a:

- Table of Contents, pagination, an acronym list, and a list of references;
- Organizational Chart with photo identification and contact information for all staff and contractors responsible for code and regulatory compliance, including specializations and current trainings/certifications and project-specific team assignments;
- DCBO work flow chart (including a timeline provided by the Project Owner);
- A color-coded CBO/DCBO COCs verification spreadsheet with submittal deadlines for preconstruction, construction, and commissioning stages;
- Detailed list of CBO/DCBO pre-construction documentation submittal requirements, including schedules, master lists, site plans, general submittals, and transmission system engineering conditions;
- Detailed list of DCBO quality control program elements to work in conjunction with the Project Owner's quality controls for design and plan review;
- Summary overview of the CBSC Structural Engineering, Piping, Fabrication Inspection, and Special Inspection guidelines applicable to the project;
- Summary overview of the DCBO's on-line document repository, including a file-naming protocol consistent with the Energy Commission's COC; and
- Summary overview of the DCBO's Document Submittal and Tracking System (DSTS) used to track document submittals, revisions, and inspections; and to ensure design and plan consistency between field crews and engineering and project management staff (see Task 2 below).
- Maintain a site presence and an on-site field office (provided by the Project Owner) during all construction activities or as directed by the CPM;
  - Issue as necessary correction notices and non-conformance reports to ensure COC and LORS compliance
- Select a DCBO Team Engineer, as directed by the CPM, to oversee engineering construction compliance, as delineated by the Facility Design, Geology, and Transmission System Engineering COCs, as well as the SWPPP and the DESCP;
- Include all the components listed below in a PCR with an easily-navigable format. Provide the PCRs to the CPM via email or web posting, and include:
  - List of DCBO staff onsite and their duties;
  - Executive summary of current construction activities, broken down by facility design engineering elements:
    - General (GEN);
    - Civil (CIVIL);
    - Structural (STRUC);

- Mechanical (MECH);
- Electrical (ELEC);
- Safety; and
- Environmental (as applicable)
- Project completion percentage, based on the amount of work completed to date for all systems before plant operation;
- Compliance issues with applicable LORS and all COCs;
- List of issued or potential non-conformance reports;
- List and status of submitted plans;
- Status of interconnections;
  - Natural Gas
  - Backfeed
  - Potable Water
  - Waste Water
  - Fire Water
- A 3 week look ahead schedule or scheduling forecast for construction progress;
- A site map (including a scale bar and directional key) and a minimum of 10 date-stamped project photographs identifying construction activities with a brief description broken down by facility design engineering elements;
- Estimate of construction staff/contractors onsite;
- List of field inspections performed this week (inspection reports shall be posted for CPM review no longer than 3 days after inspection was done); and
- List of any job related accidents whether recordable or not.
- Provide initial and periodic refresher training support to the project-specific team and the CPM on the DCBO's Document Submittal and Tracking System (DSTS); and
- Maintain, via a document control manager (DCM), a log of all email correspondence pertinent to all submittals, reviews, comments, approval, inspection requests, and inspection activity.

In addition to contract administration duties (Task 1), the DCBO will assist with code interpretation and enforcement, plan review, engineering and construction monitoring support, and potential plan amendment analyses to facilitate the successful and timely completion of the following tasks (Tasks 2-7).

## **TASK 2 – PROJECT COORDINATION AND COMMUNICATION PROTOCOLS**

Power plant development projects typically involve concurrent design and construction efforts. This "fast-track" approach requires well-organized processes in place to name and track all submittals in their various stages of development and review. Conversely, especially during the design phase, significant time may pass between subsequent submittals of the same package. To keep all parties on track, it is important that all

DCBO comments are well documented, and that a standardized electronic file-naming protocol is used.

The DCBO shall:

- Develop a web-based electronic Document Submittal and Tracking System (DSTS), designed to minimize hard-copy transmittals, that includes but is not limited to the following:
  - Username and password protection to restrict access to submittals
  - The DSTS must provide submittal associative links to review comments, document approvals, inspection requests, and construction approvals
  - File names that include:
    - The COC section abbreviation and number (i.e. "STRUC-1");
    - A short but recognizable description of the submittal type and document contents; and
    - The version or revision number, including the date received and the date returned or approved.
  - A multi-level file structure that can organize the submittals by various document characteristics and allow the user to easily identify the status of the submittal through the approval process. For example, using a query function, the user should be able to identify and/or review:
    - The COC section requiring the submittal;
    - Chronological order and date of the submittal;
    - Approval status of the submittal, including partial approvals;
    - Time anticipated (due date) for completion of the DCBO's review;
    - Document review comments;
    - Subsequent re-submittal of the corrected documents;
    - Approval signature by the DCBO Firm;
    - A separate file for the latest approved revision and another file for all the previous revisions (i.e. if the latest approved revision is number 5, then that revision should have its own file. Revisions 1-4 should be together in another file to be used if needed);
    - Construction inspection requests;
    - Notices of non-conformance;
    - Inspection comments, rejections, and approvals;
    - Special inspections; and
    - Safety Inspections.
  - A query function to locate and determine the status of every submittal, drawing, inspection, report, or other document. The query function must have the capability to link with the submittal and to gather data relating to the various sections within the COC. For example, an authorized individual should be able to query a list of all STRUC-1 compliance submittals.

- Maintain a DSTS log that follows the file structure logic to track submittals from original receipt through final inspection. The submittal log should provide a means to identify:
  - Which documents are contained within a submittal;
  - Which documents have been approved;
  - Which documents have been revised; and
  - The current document revision number.
- Maintain an accessible historical DSTS document archive of all documents submitted to the DCBO for authorized individuals. Simply having the most current version of a document in the document tracking system does not provide an adequate record of the submittal history.
- Maintain the minimum types of project documents including: construction drawings; supporting calculations; construction specifications; inspections; special inspections; worker safety records; and when applicable, environmental monitoring records.
  - Required documents submitted to the DCBO to be in an Adobe Acrobat® .pdf, secure, electronic file format, and if an Engineer of Record (EOR) is associated with the submittal, it must include a digital signature.

If approved by the CPM, minor variations to the document tracking structure described herein, and alternative methods of saving documents within a traditional, multi-level file structure may be acceptable, provided they function in a similar manner. Database and/or document tracking systems are acceptable, provided they are organized with a search engine that locates submittals and documents in the same logical fashion as would be done within a traditional data file-server structure.

### **Task 2.1 – Kick Off and Coordination Meeting(s)**

As directed by the CPM, the DCBO shall attend project-specific coordination meetings and be prepared to provide information regarding the timing, schedule, and critical path issues for COC compliance and monitoring.

### **TASK 3 – PROJECT SPECIFIC DCBO PRE-CONSTRUCTION COMPLIANCE ASSISTANCE**

There is often an extensive list of pre-construction submittals that must be approved before the Energy commission can issue a Notice to Proceed for the project. The Notice to Proceed allows site mobilization for construction to commence. Although the Energy Commission retains the final authority over all matters relating to COC interpretation, the DCBO does provide certain preliminary document review and pre-construction COC compliance assistance.

The DCBO shall assist, as directed by the CPM, with preliminary document review and pre-construction COC compliance. The amount of time required for this type of work varies from project to project, however the DCBO should communicate this to the Project Owner during their contract negotiations.

#### **TASK 4 – PROJECT SPECIFIC DCBO CONSTRUCTION PLAN REVIEW**

The bulk of the work performed by the DCBO involves the review of construction drawings, calculations, and other documents supporting the project's engineering activities. The DCBO should also anticipate document submittals concurrent with on-going construction.

Project Owners often submit multiple documents/drawings within a single submittal. The DCBO will review the submittal and approve individual documents within a submittal if possible to expedite the document review process. The documents/drawings that require re-work will be allowed to be resubmitted alone as a revision to the original submittal.

The DCBO shall:

- Review, and when found to be in compliance with all applicable LORS, approve the selection of dynamic analysis and/or alternative methods of analysis for the design of those major structures designated in the project's Facility Design COCs;
- Ensure that the results of all plan checks and construction inspections are available to the CPM via the DCBO website;
- Retain all approved plans, specifications, calculations, and marked-up "as-builts" for 90 days after the project's construction completion date, after which the DCBO will deliver them to the Project Owner for long-term retention at the project site or other accessible location; and
- Provide electronic copies of the approved plans, specifications, calculations, marked-up "as-builts," and other relevant submittals to the CPM, in the form of DVDs, compact discs or a USB memory stick, within 90 days of the project's construction completion date (see Task 7).

#### **TASK 5 – DCBO CONSTRUCTION COMPLIANCE AND FIELD INSPECTIONS**

The DCBO's responsibilities may also include conducting field inspections and providing COC compliance oversight. In this role, the DCBO is responsible for the inspection of constructed facilities to ensure compliance with the approved construction drawings. The CBSC requires that all plans be reviewed and approved before construction. There are tasks not typically performed by building department inspectors that are a part of the Energy Commission's DCBO responsibilities. These include, but are not limited to compliance items identified below and within the project-specific COCs.

The DCBO shall:

- Review and approve any of a project's proposed special inspection programs, approve the qualifications and experience of the proposed special inspectors; monitor the DCBO approved special inspectors work as needed in the field; and review the special inspectors daily reports to ensure all CBC requirements are met.
- Select a Certified Safety Monitor, financed by the Project Owner who reports directly to the DCBO and the CPM; the Certified Safety Monitor's role will include,

but not be limited to conducting on-site (including linear facilities) safety inspections to verify that the Construction Safety Supervisor implements all appropriate Cal/OSHA and Energy Commission safety requirements.

- The Safety Monitor will conduct on-site safety inspections during demolition and construction at intervals necessary to fulfill those responsibilities.
  - The Safety monitor will have the authority to issue a stop work order for unsafe conditions found on the work site. The stop work order will be in writing and given to the Construction Safety Supervisor with the necessary conditions to remedy the unsafe condition(s) before work can resume.
  - The Safety Monitor will ensure that the corrective actions have been properly taken by the Construction Safety Supervisor before work can resume.
- Provide an inspection notification process that includes independent feedback to the project team and CPM when multiple or repeated inspection failures have occurred.

#### **TASK 6 – NON-COMPLIANCE AND INCIDENT REPORTING AND RESOLUTION**

The primary responsibility of the DCBO is to ensure compliance with local building codes; the CBSC; the Facility Design, Geology and Transmission System Engineering COCs; Workers Safety; Fire Protection; the SWPPP, the DESC, and other applicable LORS. As per Task 1 above, if a non-conformance report is issued, it must be reported to the CPM (on a per incident basis or in the next PCR). The non-conformance report should only be issued after all other measures are exhausted (i.e. correction notices, discussion with CPM, etc.) to seek compliance.

The DCBO shall:

- Communicate any concerns regarding a Project Owner's design and quality assurance/quality control (QA/QC) process and documentation to the CPM for issue resolution
- Take any action allowed by the California Code of Regulations, CBSC, and LORS to ensure that the Energy Commission's interests are properly addressed and protected.
- Seek the cooperation and assistance of the CPM prior to initiating a stop-work order. For emergency situations, the DCBO may initiate a stop-work prior to notifying the CPM or the Compliance Office Manager if the CPM is not available. For any action taken under emergency conditions, the CPM must be notified within 4 hours of the action.

#### **TASK 7 –DCBO “AS-BUILT” DOCUMENT PACKAGE AND ARCHIVING**

The DCBO is responsible for the oversight/development of the as-built document package within 90 days of project/amendment construction completion. The as-built drawings originate from redlined construction drawings and these drawings are maintained by the project development team at the power plant site. The DCBO construction inspectors will ensure that the project development team captures field changes. The DCBO will receive the revised construction drawings from the project

development team's Engineer of Record and combine them with the project supporting documents to create the as-built document package. The submittal of the as-built document package to the Energy Commission is for document archival purposes as required by the COCs.

The DCBO shall:

- Ensure that the project development team captures field changes for the as-built document package.
- Receive the project development team's revised construction drawings from the EOR and combine them with the project supporting documents to create the as-built document package.
- Develop and submit as-built electronic file package consisting of construction drawings and supporting documents including, but not limited to, the following:
  - Construction drawings;
  - Supporting calculations;
  - Construction specifications;
  - Inspection records;
  - Special inspection records; and
  - Worker safety records, etc.
- Submit one copy to the Energy Commission and one copy to the Project Owner of all volumes of the as built document package on CD-ROM, DVDs or USB memory stick, saved in Adobe Acrobat® .pdf file format, and organized by COC section:
  - General – GEN;
  - Civil – CIVIL;
  - Structural – STRUC;
  - Mechanical – MECH;
  - Electrical – ELEC;
  - Transmission Systems Engineering– TSE.

The DCBO is responsible for verifying the completeness of this package, which should include any additional related facilities<sup>1</sup> within the Energy Commission's jurisdiction that are not included in the six facility design elements above.

### **DCBO WORK PERFORMED PRIOR TO ISSUANCE OF FINAL DECISION**

The Energy Commission must ensure that the projects related to the RFQ are designed, constructed, and operated in conformity with their Final Decisions; the CBSC; the local building codes adopted by the County or City of [Enter name of County or City]; and all other applicable LORS. If the Project Owner anticipates site mobilization immediately following issuance of the Final Decision, the Project Owner may be permitted to file compliance submittals prior to the issuance of the Final Decision. Compliance verifications may be submitted in advance of the Final Decision, but the Project Owner submits the compliance verifications at its own risk. Additionally, any work undertaken by DCBO prior to the issuance of the Final Decision shall be

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<sup>1</sup> Cal. Code Regs. tit. 20, §1201(r)

performed at the sole risk of DCBO. Any compliance approvals by Energy Commission staff prior to the issuance of the Final Decision are subject to change, and staff compliance approvals provided before the issuance of the Final Decision does not imply that the Energy Commission will approve the project for actual construction and operation.

### **No Work Guarantee**

The Energy Commission does not guarantee any minimum or maximum amount of work to the prime Contractor or any subcontractor under the agreement. Selection as a Project Specific DCBO by the Energy Commission does not guarantee that the project will be constructed or that construction will be completed in a definite timeframe.



### III. SOQ FORMAT, REQUIRED DOCUMENTS AND DELIVERY

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#### ABOUT THIS SECTION

This section contains the format requirements and instructions on how to submit an SOQ in response to this RFQ. The format is prescribed to assist the Firm in meeting State requirements and to enable the Energy Commission to evaluate each SOQ uniformly and fairly. Firms must follow all SOQ format instructions, answer all questions, and supply all requested data.

#### PRICING/RATES INFORMATION

Do not submit any price quotes or bids in your SOQ since this will be negotiated with the top-rated firm.

#### REQUIRED FORMAT FOR AN SOQ

All SOQs submitted under this RFQ must be typed or printed using a standard 12-point font, singled-spaced and a blank line between paragraphs. SOQs must be no more than 15 double-sided, 8 1/2 x 11 pages (excluding required appendices). Pages must be numbered and sections titled and printed back-to-back. Spiral or comb binding is preferred and tabs are encouraged. Binders are discouraged.

#### NUMBER OF COPIES

Firms must submit the original and **[# OF EVALUATORS +1]** copies of the SOQ

Firms must also submit electronic files of all volumes on CD-ROM, DVD or USB memory stick along with the paper submittal. Only one CD-ROM, DVD or USB memory stick is needed. Electronic files must be in Microsoft Word XP (.doc format) and Excel Office Suite formats. Electronic files submitted via e-mail will not be accepted.

#### PACKAGING AND LABELING

The original and copies of the SOQ must be labeled "Request for Qualifications, [RFQ-XX-XXX]," and include the title of SOQ and the appropriate volume number.

Include the following label information and deliver your SOQ, in a sealed package:

|                                                                                           |                                                                                                                                                |
|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Person's Name, Phone #<br>Firm's Name<br>Street Address<br>City, State, Zip Code<br>FAX # |                                                                                                                                                |
|                                                                                           | <b>[RFQ-XX-XXX]</b><br>Contracts Office, MS-18<br>California Energy Commission<br>1516 Ninth Street, 1st Floor<br>Sacramento, California 95814 |

## **PREFERRED METHOD FOR DELIVERY**

A Firm may deliver an SOQ by:

- U.S. Mail, FedEx, UPS (or similar mail service);
- In person; or
- Messenger service

SOQs must be delivered **no later than 3:00 p.m.**, to the Energy Commission's Contracts, Grants and Loans Office during normal business hours and prior to the deadline specified in this RFQ (Section 1). Any SOQ received after the specified date and time are considered late and will not be accepted. Postmark dates of mailing, E-mail and facsimile (FAX) transmissions are not acceptable in whole or in part, under any circumstances.

## **SOQ ORGANIZATION**

### **SECTION 1: ADMINISTRATIVE RESPONSE**

Cover Letter

Table of Contents

Contractor Status Form

Darfur Contracting Act Form

DVBE Declarations Form Std 843 (if applicable)

Bidder Declaration Form GSPD-05-105 (if applicable)

Contractor Certification Clauses

Client References

Certification Regarding Conflict of Interest

Iran Contracting Act Form

Attachment 1

Attachment 2

Attachment 3

Attachment 4

Attachment 5

Attachment 7

Attachment 8

Attachment 9

### **SECTION 2: MINIMUM REQUIREMENTS FOR SOQ SUBMITTAL**

A. Conflict of Interest Minimum Requirements

B. Project Team Qualification Minimum Requirements

#### **Minimum Requirements**

In order for a Firm's SOQ to be accepted and scored on the technical substance, the Firm must meet both the Conflict of Interest Minimum Requirements and the Project Team Qualification Minimum Requirements. The Energy Commission will determine if the Firm meets the minimum requirements. If not, the Firm shall be eliminated and the SOQ will not be evaluated and scored. For the purpose of this section the terms "Application" and "Project Owner" are defined as follows:

- "Application" means an application for certification for an energy facility or an application for a small power plant exemption. Application also means a petition to amend an existing license already issued by the Energy Commission.
- "Project Owner" means the entity submitting an application for certification for an energy facility. Project Owner also means the project developer or operator filing a petition to amend an existing license. Project Owner includes the business

entity responsible for filing the application for certification or petition to amend and all of its parent companies and subsidiaries.

#### **A. Conflict of Interest Minimum Requirements**

The Firm must meet the conflict of interest minimum requirements described in this section. First, the Firm must be Available to Work on the power plant project. Second, the Firm must certify that it has a team that is Available to Work that can cover every position listed on Table 1, Project Team Qualification, Experience, and License Requirements. "Available to Work" is defined in each section below.

##### Minimum Requirements for the Firm

The Firm must be Available to Work on the power plant project. A Firm is Available to Work on the power plant project if:

- The Firm has not worked on behalf of the Project Owner on the power plant Application that is the subject of this RFQ and has not received income from the power plant Project Owner within the twelve months prior to the start of work for the Energy Commission under the agreement resulting from this RFQ, except income received from the Project Owner pursuant to a Memorandum of Understanding between the Energy Commission and the Firm for work as the Energy Commission's DCBO.
- The Firm's subcontractors have not worked on behalf of the Project Owner on the power plant Application that is the subject of this RFQ and have not received income from the power plant Project Owner within the twelve months prior to the start of work for the Energy Commission under the agreement resulting from this RFQ, except income received from the Project Owner pursuant to a Memorandum of Understanding between the Energy Commission and the Firm for work as the Energy Commission's DCBO.

##### Minimum Requirements for the Team

The Firm must certify that it has a team that is Available to Work that can cover every position listed on Table 1, Project Team Minimum Requirements. To cover every position, the Firm must certify that it has the at least one team member for each position that is Available to Work on the power plant project. "Available to Work" means that the team member has no conflicts of interest associated with the power plant project. A team member is Available to Work on the power plant project if:

- The person has not previously worked on behalf of the Project Owner on the power plant Application that is the subject of this RFQ.
- The person has no financial interest in the Project Owners and Project Entities identified below, except for income received for performing work as DCBO on behalf of the Energy Commission.

Please use Attachment 8, *Certification Regarding Conflicts of Interest*, to help you determine whether a team member is Available to Work. Please use the Power Plant Project Owner and Project Entities List below for your answers to Section 3 of Attachment 8.

**Power Plant Project Owner and Project Entities List** [This section should match the list provided to the Firm in the Certification Regarding Conflicts of Interest for submission at point (1).]

Name of Power Plant Project: [insert name]

Project Owner(s):

- [Insert names]

Project Entities:

- [Insert names]

## B. Project Team Qualification Minimum Requirements

The Firm must satisfy all of the Minimum Qualifications listed below. If the Firm fails to satisfy all of the Minimum Qualifications at the time of SOQ submission the Firm shall be eliminated and the SOQ will not be evaluated and scored. The successful Firm must continue to satisfy all of the Minimum Qualifications throughout the term of the contract resulting from this RFQ.

| TABLE 1: PROJECT TEAM MINIMUM REQUIREMENTS |                                                                                                                                                                                                                                     |                                                                                                                                              |                                                                                                                                             |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| DELEGATED POSITION                         | QUALIFICATIONS                                                                                                                                                                                                                      | EXPERIENCE                                                                                                                                   | EDUCATION/ LICENSE/ CERTIFICATION REQUIREMENTS                                                                                              |
| Chief Building Official (CBO)              | Verifiable experience as a Chief Building Official on complex industrial* facilities and high-voltage power generating facilities in California                                                                                     | Minimum 2 years as a CBO on a power generating facility                                                                                      | Minimum Combination Building Inspector, but desired Chief Building Official from a recognized state, national or international organization |
| Deputy Chief Building Official             | Verifiable experience as a Deputy Chief Building Official on complex industrial* facilities (preferably with high-voltage power generating facilities) in California                                                                | Minimum 2 years, but desired 3 years as a Deputy CBO for Complex industrial facilities (preferably high voltage power generating facilities) | Minimum Building Inspector, but desired Combination Inspector, from a recognized state, national or international organization              |
| Fire Marshall                              | Certified California Fire plan reviewer and certified California fire inspector with verifiable experience as a Fire Marshall on complex industrial* facilities and high-voltage power generating facilities in California          | Minimum 2 years, but desired 3 years reviewing fire plans for a high voltage power generating facility                                       | Minimum Fire Marshall and Fire Plans Reviewer from a recognized state, national or international organization                               |
| Lead Structural Plan Review Engineer       | California licensed structural engineer or California licensed civil engineer with verifiable knowledge and experience in structural engineering, and is fully competent and proficient in reviewing construction documents (plans, | Minimum 2 years, but desired 3 years reviewing plans for a high voltage power generating facility                                            | Engineering degree that is licensed and in good standing with the California Department of Consumer Affairs,                                |

| TABLE 1: PROJECT TEAM MINIMUM REQUIREMENTS |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                    |                                                                                                                                                                                                                |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DELEGATED POSITION                         | QUALIFICATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | EXPERIENCE                                                                                                                                         | EDUCATION/ LICENSE/ CERTIFICATION REQUIREMENTS                                                                                                                                                                 |
|                                            | calculations and specifications) of complex industrial* facilities and power generating facilities structures and equipment supports in California                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                    | Board for Professional Engineers, Land Surveyors and Geologists for the discipline to be reviewed                                                                                                              |
| Lead Electrical Plan Review Engineer       | California licensed electrical engineer with verifiable knowledge and experience in electrical engineering, and is fully competent and proficient in reviewing construction documents (plans, calculations and specifications) of complex industrial* facilities and power generating facilities' electrical systems that include low, medium and high voltages                                                                                                                                                                                                                                                                 | Minimum 2 years, but desired 3 years reviewing plans for a high voltage power generating facility                                                  | Engineering degree that is licensed and in good standing with the California Department of Consumer Affairs, Board for Professional Engineers, Land Surveyors and Geologists for the discipline to be reviewed |
| Lead Mechanical Plan Review Engineer       | California licensed mechanical engineer with verifiable knowledge and experience in mechanical engineering, and is fully competent and proficient in reviewing construction documents (plans, calculations and specifications) of complex industrial* facilities and high-voltage power generating facilities mechanical systems that include but are not limited to: chemical conveying systems; potable water; fire protection; pressure vessels; steam piping; and high pressure gas lines                                                                                                                                   | Minimum 2 years, but desired 3 years reviewing plans for a high voltage power generating facility                                                  | Engineering degree that is licensed and in good standing with the California Department of Consumer Affairs, Board for Professional Engineers, Land Surveyors and Geologists for the discipline to be reviewed |
| Lead Civil/Geology Plan Review Engineer    | California licensed civil engineer with verifiable knowledge and experience in civil engineering, and is fully competent and proficient in reviewing construction documents (plans, calculations and specifications) of complex industrial* facilities and high-voltage power generating facilities that include but are not limited to: foundation investigations; geotechnical/ soils reports; site preparation; excavation; compaction; secondary containment; foundations; erosion and sedimentation control structures; drainage facilities; underground utilities; culverts; site access roads and sanitary sewer systems | Minimum 2 years, but desired 3 years reviewing Civil plans for Complex industrial facilities (preferably high voltage power generating facilities) | Engineering degree that is licensed and in good standing with the California Department of Consumer Affairs, Board for Professional Engineers, Land Surveyors and Geologists for the discipline to be reviewed |
| Lead Building (Life/Safety) Plan           | Certified commercial building plan reviewer with verifiable knowledge and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Minimum 2 Years, but                                                                                                                               | Certification from a recognized state,                                                                                                                                                                         |

**TABLE 1: PROJECT TEAM MINIMUM REQUIREMENTS**

| DELEGATED POSITION              | QUALIFICATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | EXPERIENCE                                                                                                                           | EDUCATION/ LICENSE/ CERTIFICATION REQUIREMENTS                                     |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Reviewer                        | experience reviewing plans for life/safety compliance on complex industrial* facilities (preferably with high-voltage power facilities) in California. Experience should include but not be limited to reviewing: Occupancy classification; type of construction; allowable square footage; fire separations; elevators; ADA; building egress; and Green Building, including planning and design, energy efficiency, water efficiency, resource efficiency and environmental quality                                           | desired 3 years Reviewing Life/Safety Plans for Complex industrial* facilities (preferably high voltage power generating facilities) | national or international organization as a commercial plan reviewer               |
| Mechanical Plan Review Engineer | Mechanical engineer with verifiable experience and knowledge, that with supervision from the lead mechanical plan review engineer, is fully competent and proficient in reviewing construction documents (plans, calculations and specifications) of complex industrial* facilities (preferably with high-voltage power generating facilities) mechanical systems that include but are not limited to; chemical conveying systems; potable water; fire protection; pressure vessels; steam piping; and high pressure gas lines | 1 Year Reviewing Plans for Complex industrial* facilities (preferably high voltage power generating facilities)                      | Engineering Degree                                                                 |
| Electrical Plan Review Engineer | Electrical engineer with verifiable experience and knowledge, that with supervision from the lead electrical engineer is fully competent and proficient in reviewing construction documents (plans, calculations and specifications) of complex industrial* facilities and power generating facilities electrical systems that include low, medium and high voltages                                                                                                                                                           | 1 Year Reviewing Plans for Complex industrial* facilities (preferably high voltage power generating facilities)                      | Engineering Degree                                                                 |
| Structural Plan Review Engineer | Structural engineer or civil engineer with verifiable experience and knowledge, that with supervision from the lead structural plan review engineer is fully competent and proficient in reviewing construction documents (plans, calculations and specifications) of complex industrial* facilities and power generating facilities, structures and equipment supports in California                                                                                                                                          | 1 Year Reviewing Plans for Complex industrial* facilities (preferably high voltage power generating facilities)                      | Engineering Degree                                                                 |
| Lead Onsite Inspector           | Certification from a recognized state, national or international organization as a combination Building Inspector with verifiable experience as a lead inspector on high voltage power generating and                                                                                                                                                                                                                                                                                                                          | Minimum 2 years, but desired 3 years as a lead inspector on high-voltage                                                             | Certification from a recognized state, national or international organization as a |



| TABLE 1: PROJECT TEAM MINIMUM REQUIREMENTS |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                   |                                                                                                                                                          |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| DELEGATED POSITION                         | QUALIFICATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | EXPERIENCE                                                                                                        | EDUCATION/ LICENSE/ CERTIFICATION REQUIREMENTS                                                                                                           |
|                                            | complex industrial* facilities in California                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | power generating facilities in California                                                                         | Building (Life/Safety), Electrical, Mechanical and Plumbing inspector                                                                                    |
| Onsite Inspector                           | Certification from a recognized state, national or international organization as a combination Building Inspector with verifiable knowledge and experience as an inspector on complex industrial* facilities (preferably high voltage power generating facilities) in California                                                                                                                                                                                                                                                            | 1 year as an inspector on complex industrial* (preferably high voltage power generating) facilities in California | Certification from a recognized state, national or international organization as a Building (Life/Safety), Electrical, Mechanical and Plumbing inspector |
| Worker Safety Monitor                      | Verifiable experience as a safety representative on complex industrial* (preferably high voltage power generating) facilities                                                                                                                                                                                                                                                                                                                                                                                                               | 2 years as a Safety Professional on complex industrial* (preferably high voltage power generating) facilities     | Certification from a recognized state, national or international organization as a Safety Professional                                                   |
| Document Control                           | Verifiable experience to include but not be limited to; collecting, maintaining and distribution of all documents necessary for successful project delivery; management, tracking and distribution of engineering documents; tracking of review deadlines; distribution of tasks including inspection requests, engineering document review requests and other miscellaneous project requirement due dates; compilation of project documents; and review and editing of inspection reports, engineering letters, etc.                       | Minimum 1 year, but desired 2 years                                                                               | Bachelor's degree                                                                                                                                        |
| Project Assistant                          | Verifiable experience to include but not be limited to; assisting field and office staff with the creation of project deliverables; coordinate office and field supply requirements for specific assignments; perform clerical duties to generate and revise documents as necessary; performing technical writing duties as assigned; and website maintenance (upload/download documentation) as necessary. Should be proficient in the following: Microsoft Word, Excel, PowerPoint; presentation development; technical writing; editing; | Minimum 1 year, but desired 2 years                                                                               | Bachelor's Degree preferred, but not required if experience is sufficient                                                                                |

| TABLE 1: PROJECT TEAM MINIMUM REQUIREMENTS |                                                                                               |            |                                                |
|--------------------------------------------|-----------------------------------------------------------------------------------------------|------------|------------------------------------------------|
| DELEGATED POSITION                         | QUALIFICATIONS                                                                                | EXPERIENCE | EDUCATION/ LICENSE/ CERTIFICATION REQUIREMENTS |
|                                            | process implementation; and must have excellent communication skills with attention to detail |            |                                                |

\*Complex industrial experience is defined as having similar systems as a high-voltage power generating facility that include but are not limited to: high pressure gas system; high pressure steam, chemical carrying pipeline systems, etc.

For each expertise/position listed in Table 1, the Firm must submit the name of the team member, a short description of the person's qualifications, experience, and education/license/certification, a copy of those licenses and certifications, and a completed Attachment 8, *Certification Regarding Conflicts of Interest*.

### **SECTION 3: TECHNICAL RESPONSE**

- A. Approach to Tasks in Scope of Work
- B. Project Team Management and Quality Control Experience
- C. Project Team Organizational Structure
- D. Project Team Relevant Experience and Qualifications
- E. Analytical Tools
- F. Client References

#### **Project Specific DCBO Experience**

Provided below are the required supplemental documentation and desired experience of the DCBO either as it pertains to the scope of work or under the specific categories used by the evaluation committee.

##### ***A. Approaches to Scope of Work***

Describes the Firm's general and specific proposed approaches to providing the services listed in the Scope of Work, highlighting outstanding features, qualifications, and experience of the team.

- TASK 1 – Project Management (DCBO Infrastructure)
- TASK 2 – Project Coordination and Communication Protocols
  - Task 2.1 – Kick Off and Coordination Meetings
- TASK 3 – Pre-Construction Compliance Assistance
- TASK 4 – Construction Plan Review
- TASK 5 – Construction Compliance and Field Inspection
- TASK 6 – Non-compliance and Incident Reporting and Resolution
- TASK 7 – "As-Built" Document Package and Archiving



### ***B. Project Team Management and Quality Control Experience***

- Describe how the Firm would initiate, schedule, and manage the project team for a complex construction project, including a narrative of the team's communication protocol among the Firm's team members (including subcontractors), the Project Owner's team members, and the CPM.
- Describe the Firm's approach to the contract management and administration of this agreement. Identify the contract management team members.
- Describe the Firm's code interpretation and conflict resolution processes with contractors, local jurisdictions, and the public.
- Describe the Firm's approach to provide quality assurance for each team member's performance, and to identify and resolve performance problems effectively.
- Describe the Firm's approach to minimize turnover and provide a stable professional team for the duration of the agreement, including the ability to effectively and efficiently add and train new team members as needed.

### ***C. Project Team Organizational Structure***

- Describe the composition and organizational structure of the Firm, including providing an organizational chart of the entire team. In addition, provide the following:
  - Identify all responsible engineering team members and supervisorial/senior monitoring team members, with photo identification (See Task 1);
  - Identify senior team members familiar with the facility types specific to the Energy Commission's jurisdiction;
  - Provide the number of employees in the Firm and the number of years the Firm has been in business.
- Describe the composition and organizational structure of each subcontractor, including providing an organizational chart for each subcontractor. In addition, provide the following:
  - Provide the number of employees, number of years in business, and key team members,
- Identify the primary contact person for the Firm and each subcontractor. The primary contact person for the Firm must attend the discussion session described in Section IV. Additionally, at least one individual representing the team's expertise in each of the technical areas of your SOQ is encouraged to attend the discussion session.
- Identify the locations of the Firm's and each subcontractor's headquarters and/or satellite office(s).
- Provide a short description of each subcontractor and key members of the team. Describe the relationship between the Firm and the subcontractors on your team. Indicate any history of a working relationship between the team members noting any significant success stories.

- Describe the Firm's ability to pay subcontractors on a timely basis.

***D. Project Team Relevant Experience and Qualifications***

- Identify and list all of the Firm's staff and subcontractors (all team members) who will be committed to the tasks. Describe their roles and familiarity with the technical areas pertinent to the tasks identified in the Scope of Work. Include job classifications, relevant experience, education level, and academic degrees (as applicable).
- Provide a brief description of the Firm's familiarity with the Energy Commission's AFC/PTA processes and COCs, in conjunction with the scope of the DCBO's duties and responsibilities.
- Identify the percentage of time each team member will be available throughout the contract term.
- Describe any professional awards of the Firm and each subcontractor.
- Highlight any awards, specialized facility compliance experience, or current certifications of the project team that are applicable to the tasks in the Scope of Work.
- Provide a description of the project team's experience evaluating code compliance for projects with a significantly large and varied array of conditions for approval.
- Identify the project team's qualified experts in plan review and in construction inspection and monitoring.
- Include a current set of qualifications for all project team members expected to conduct plan review services.
- Provide a list of projects completed in the last five years by the project team that demonstrate familiarity with these elements of energy facility compliance plans:
  - Energy Commission COCs (including Facility Design, Hazardous Materials, Worker Safety, Fire Protection, Soil and Water, and Transmission Safety Engineering);
  - Construction and operational safety and health programs;
  - Injury and illness prevention programs; and
  - Emergency action and fire prevention plans.
- Provide a list of projects completed by the project team in the last five years that demonstrate engineering plan-review experience with the following:
  - Facility design review (i.e., civil and structural, electrical, and mechanical engineering);
  - Pipeline safety;
  - Storm water management;
  - Transmission system engineering;
  - Geology and seismic safety experience; and

- Geothermal or solar technology experience (as applicable).
- Identify any work done in the last five years with any thermal power plant developer or owners that have projects in California.
  - include relevant documentation, qualifications, and technical certifications;
  - include all third party plan review service providers, and the relevant documentation, qualifications, and technical certifications for the subcontractors

#### ***E. Analytical Tools***

- Describe capability to use computers and/or analytical tools to accomplish the tasks listed in the Scope of Work and what types of computers and/or analytical tools will be used.
- Describe any technical capabilities that would facilitate communication with the Energy Commission.

#### ***F. Client References***

The Firm and each subcontractor shall complete a Client Reference Form. Three client references are required for the Firm and three Client references are required for each subcontractor.

## **IV. EVALUATION CRITERIA AND SELECTION PROCESS**

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### **SELECTION PROCESS STEPS**

This section contains the Energy Commission's evaluation and selection process. After passing an initial screening the Energy Commission will organize a committee (the Evaluation Committee) whose members have expertise in the evaluation of architectural and engineering services. The Evaluation Committee will evaluate, score, and rank the SOQs, and ultimately select the highest ranked Firm.

### **ADMINISTRATIVE AND COMPLETENESS SCREENING CRITERIA (MANDATORY)**

Each SOQ will be screened for compliance with the Administrative Screening Criteria below. The Energy Commission will evaluate each SOQ to determine its responsiveness to these requirements. SOQs that fail or do not fully comply with any of the Administrative and Completeness Screening Criteria shall be disqualified and eliminated from further evaluation.

- SOQ must be received no later than time and date set for receipt of SOQs.
- SOQ must be responsive to the California Disabled Veteran Business Enterprise participation requirements.
- SOQ must include properly executed Contractor Certification Clauses.
- SOQ must include a properly executed Darfur Contracting Act Form.
- SOQ must include a properly executed Iran Contracting Act Form.
- SOQ must not contain false or intentionally misleading statements or references that do not support an attribute or condition contended by the Firm.
- SOQ must not be intended to erroneously and fallaciously mislead the State in its evaluation of the SOQ and the attribute, condition, or capability is a requirement of this RFQ.
- SOQ must not have a conflict of interest as stated in this RFQ.
- SOQ must not contain confidential information or contain any portion marked confidential.
- Firm must agree to the terms and conditions as attached to the solicitation. Firm must sign the Contractor Status Form indicating acceptance with the terms and conditions. Firm must not state anywhere in the SOQ that acceptance is based on modifications to those terms and conditions or separate terms and conditions.

### **GROUND S TO REJECT A SOQ**

In addition to the Administrative Screening Criteria identified above, the Energy Commission reserves the right to reject an SOQ if:

- The SOQ is unsigned.
- The SOQ is not prepared in the format described.
- The Firm has submitted multiple SOQ's.

- The Firm does not meet the minimum qualifications found in Table 1.
- The SOQ does not literally comply or contains caveats that conflict with the RFQ and the variation or deviation is material, or it is otherwise non-responsive.
- The Firm has previously completed a PIER agreement, received the PIER Royalty Review letter, which the Energy Commission annually sends out to remind past recipients of their obligations to pay royalties, and has not responded to the letter or is otherwise not in compliance with repaying royalties.

### **MINIMUM QUALIFICATIONS**

The Evaluation Committee will determine if the Firm meets the minimum qualifications. If not, the Firm shall be eliminated and the SOQ will not be evaluated and scored.

### **EVALUATION CRITERIA AND SCORING PROCESS**

The Evaluation Committee will review and score all remaining SOQs based on the Evaluation Criteria in this RFQ. The preliminary technical score for each SOQ will be the average of the combined scores of all Evaluation Committee members.

### **EVALUATION CRITERIA WORKSHEET AND SCORING SCALE**

Using this Scoring Scale, the Evaluation Committee will give a score for each criterion described in the Evaluation Criteria Worksheet below.

#### **Scoring Scale**

| <b>% OF POSSIBLE POINTS</b> | <b>INTERPRETATION</b> | <b>EXPLANATION FOR PERCENTAGE POINTS</b>                                                                                                                                                                                                                       |
|-----------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0%                          | Not Responsive        | Response does not include or fails to address the requirements being scored. The omission(s), flaw(s), or defect(s) are significant and unacceptable.                                                                                                          |
| 10-30%                      | Minimally Responsive  | Response minimally addresses the requirements being scored. The omission(s), flaw(s), or defect(s) are significant and unacceptable.                                                                                                                           |
| 40-60%                      | Inadequate            | Response addresses the requirements being scored, but there are one or more omissions, flaws, or defects or the requirements are addressed in such a limited way that it results in a low degree of confidence in the proposed solution.                       |
| 70%                         | Adequate              | Response adequately addresses the requirements being scored. Any omission(s), flaw(s), or defect(s) are inconsequential and acceptable.                                                                                                                        |
| 80%                         | Good                  | Response fully addresses the requirements being scored with a good degree of confidence in the Firm's response or proposed solution. No identified omission(s), flaw(s), or defect(s). Any identified weaknesses are minimal, inconsequential, and acceptable. |
| 90%                         | Excellent             | Response fully addresses the requirements being scored with a high degree of confidence in the Firm's response or proposed solution. Firm offers one or more enhancing features, methods or approaches exceeding basic expectations.                           |
| 100%                        | Exceptional           | All requirements are addressed with the highest degree of confidence in the Firm's response or proposed solution. The response exceeds the requirements in providing multiple enhancing features, a creative approach, or an exceptional solution.             |

## SOQ Evaluation Scoring Worksheet

| EVALUATION OF STATEMENT OF QUALIFICATIONS - CRITERIA<br>*REFERENCES WILL BE CONSIDERED THROUGHOUT THE SCORING CRITERIA*                                                                                                                                            |  | POINTS<br>POSSIBLE | POINTS<br>AWARDED |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------|-------------------|
| <b>WRITTEN EVALUATION CRITERIA</b>                                                                                                                                                                                                                                 |  |                    |                   |
| <b>1. Approach to Tasks in Scope of Work</b><br>Describes the Firm's general and specific proposed approaches to providing the services listed in the Scope of Work, highlighting outstanding features, qualifications, and experience of the team.                |  |                    |                   |
| a. TASK 1 – Project Management (DCBO Infrastructure)                                                                                                                                                                                                               |  | 25                 |                   |
| b. TASK 2 – Project Coordination and Communication Protocols<br>i) Task 2.1 Kick Off and Coordination Meetings                                                                                                                                                     |  | 25                 |                   |
| c. TASK 3 – Pre-Construction Compliance Assistance                                                                                                                                                                                                                 |  | 20                 |                   |
| d. TASK 4 – Construction Plan Review                                                                                                                                                                                                                               |  | 25                 |                   |
| e. TASK 5 – Construction Compliance and Field Inspection                                                                                                                                                                                                           |  | 25                 |                   |
| f. TASK 6 – Non-compliance and Incident Reporting and Resolution                                                                                                                                                                                                   |  | 25                 |                   |
| g. TASK 7 – "As-Built" Document Package and Archiving                                                                                                                                                                                                              |  | 25                 |                   |
| <b>2. Project Management and Quality Control Experience</b>                                                                                                                                                                                                        |  |                    |                   |
| a. Ability of the Firm to initiate, schedule, and manage the project team for a complex construction project, and effectiveness of communication protocol among the Firm's team members (including subcontractors), the Project Owner's team members, and the CPM. |  | 75                 |                   |
| b. Ability of the Firm to perform its prime contract management and administration duties.                                                                                                                                                                         |  | 20                 |                   |
| c. Effectiveness of the Firm's code interpretation and conflict resolution processes.                                                                                                                                                                              |  | 60                 |                   |
| d. Ability of the Firm to provide quality assurance for each team member's performance, and to identify and resolve performance problems effectively.                                                                                                              |  | 80                 |                   |
| e. Ability of the Firm to minimize turnover and effectively and efficiently recruit and train new team members as needed.                                                                                                                                          |  | 20                 |                   |
| <b>3. Project Team Organizational Structure</b>                                                                                                                                                                                                                    |  |                    |                   |
| a. Effectiveness of project team organization.                                                                                                                                                                                                                     |  | 25                 |                   |
| b. Depth of knowledge of senior team members with the facility types specific to Energy Commission jurisdiction.                                                                                                                                                   |  | 80                 |                   |
| c. Ability of the Firm to create and maintain a positive working relationship with subcontractors.                                                                                                                                                                 |  | 20                 |                   |
| d. Ability of the Firm to pay subcontractors on a timely basis.                                                                                                                                                                                                    |  | 20                 |                   |
| <b>4. Project Team Relevant Experience and Qualifications</b>                                                                                                                                                                                                      |  |                    |                   |
| a. Depth of experience of team members, including awards, specialized experience, current certifications, and overall team qualifications.                                                                                                                         |  | 50                 |                   |



| <b>EVALUATION OF STATEMENT OF QUALIFICATIONS - CRITERIA</b><br>*REFERENCES WILL BE CONSIDERED THROUGHOUT THE SCORING CRITERIA* |                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>POINTS<br/>POSSIBLE</b> | <b>POINTS<br/>AWARDED</b> |
|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------|
| b.                                                                                                                             | Team members' familiarity with Energy Commission's AFC/PTA processes and COCs.                                                                                                                                                                                                                                                                                                                                      | 30                         |                           |
| c.                                                                                                                             | Depth of team members' code compliance experience for projects with a significantly large and a varied array of conditions for approval.<br>i) Expertise in plan review and construction inspection and monitoring.                                                                                                                                                                                                 | 100                        |                           |
| d.                                                                                                                             | Knowledge of the following elements of energy facility compliance plans:<br>i) Energy Commission COCs (including Facility Design, Hazardous Materials, Worker Safety, Fire Protection, Soil and Water, and Transmission Safety Engineering);<br>ii) Construction and operational safety and health programs;<br>iii) Injury and illness prevention programs; and<br>iv) Emergency action and fire prevention plans. | 30                         |                           |
| e.                                                                                                                             | Demonstrates engineering plan-review experience with the following:<br>i) Facility design review (i.e., civil and structural, electrical, and mechanical engineering);<br>ii) Pipeline safety;<br>iii) Storm water management;<br>iv) Transmission system engineering;<br>v) Geology and seismic safety experience; and<br>vi) Geothermal or solar technology experience (as applicable).                           | 100                        |                           |
| <b>5. Analytical Tools</b>                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                     |                            |                           |
| a.                                                                                                                             | Ability of Firm to use computers and/or analytical tools to accomplish the tasks listed in the Scope of Work and what types of computers and/or analytical tools will be used.                                                                                                                                                                                                                                      | 20                         |                           |
| b.                                                                                                                             | Technical capabilities of Firm that would facilitate communication with the Energy Commission.                                                                                                                                                                                                                                                                                                                      |                            |                           |
| <b>Written Evaluation Maximum Points Possible</b>                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>900</b>                 |                           |
| <b>Firm's Written Score</b>                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                     |                            |                           |
| <b>DISCUSSION EVALUATION CRITERIA</b>                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>POINTS<br/>POSSIBLE</b> | <b>POINTS<br/>AWARDED</b> |
| <b>6. Discussion</b>                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                     |                            |                           |
| a.                                                                                                                             | Quality of presentation.                                                                                                                                                                                                                                                                                                                                                                                            | 25                         |                           |
| b.                                                                                                                             | Clean and concise responses to questions.                                                                                                                                                                                                                                                                                                                                                                           | 25                         |                           |
| c.                                                                                                                             | Demonstrated knowledge of the subject/issues.                                                                                                                                                                                                                                                                                                                                                                       | 25                         |                           |
| d.                                                                                                                             | Demonstrated ability to anticipate and resolve problems                                                                                                                                                                                                                                                                                                                                                             | 25                         |                           |
| <b>Discussion Evaluation Maximum Points Possible</b>                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>100</b>                 |                           |
| <b>Firm's Discussion Score</b>                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                     |                            |                           |

|                                                           |             |
|-----------------------------------------------------------|-------------|
| <b>Maximum Points (Written SOQ and Discussion)</b>        | <b>1000</b> |
| <b>Written SOQ Evaluation Minimum Passing Score (75%)</b> | <b>675</b>  |
| <b>Firm's Total Score</b>                                 |             |

## **Ranking an SOQ**

After each SOQ is scored, it will be placed on a list, in rank order, with the highest scoring SOQ placed first and the remainder in descending order based on score.

## **FIRM SELECTION AND NOTICING PROCESS**

### **NOTICE OF FIRMS SELECTED FOR DISCUSSIONS**

Approximately 5 business days before the time scheduled for discussions, the Energy Commission will notify all Firms indicating whether they will be invited to participate in the discussions.

#### **Discussions**

The Evaluation Committee shall conduct discussions during the Evaluation Process with no less than three Firms regarding qualifications and methods for furnishing the required services. Firms invited to participate in the Discussion will be scored by the Evaluation Committee on their response. The Evaluation Committee may use patterned questions and/or questions specific to an SOQ to conduct these discussions. The Evaluation Committee may provide the Firms with a copy of the questions and/or issues to be addressed and a format for structured discussions.

Firms should anticipate travel to the Energy Commission Headquarters for the discussions. The Firm is responsible for any travel costs associated with participating in discussions. At the discretion of the CPM, discussions may be held via conference call or web-ex. The project lead and at least one person from each technical area is encouraged participate in the discussion.

Upon completion of the discussions the Evaluation Committee may make adjustments to the preliminary scores and re-rank the Firms. From the Firms with which discussions are held, the Evaluation Committee shall select no less than three, in order of preference, based upon the established criteria, who are deemed to be the most highly qualified to provide the required services.

### **NOTICE OF SELECTION**

Subsequent to the SOQ evaluations and the discussions with Firms, the Energy Commission will post a "Notice of Selection" of the top-scoring Firm at the Energy Commission's headquarters in Sacramento, and on the Energy Commission's website at [www.energy.ca.gov](http://www.energy.ca.gov).

#### **Negotiations**

Pursuant to Title 20, California Code of Regulations (CCR), section 2565 and Public Contract Code (PCC) 6106, within 14 days after posting the Notice of Selection, the Energy Commission will begin negotiations with the top ranked Firm for an acceptable fee (hourly rates and markup on direct costs, if any).

The top ranked Firm will be required to submit:

- 1) Proposed percentage that the Firm will markup on any direct costs incurred, if any. Direct cost items, such as equipment purchase or rental, copying, etc. must be



charged to the Energy Commission at the same actual cost that the Firm is charged by outside vendors or subcontractors, or the same cost the Firm charges other customers. The Energy Commission will negotiate with the Firm on any markup that the Firm proposes to charge, if any, on top of the actual cost of the item.

2) A list of rates for people listed in the SOQ, after written notification of selection. The Energy Commission may consider negotiating rates for a person that the Firm did not include in the SOQ. However, because the additional person might affect the Firm's score or take additional time that the Energy Commission does not have or does not want to spend, the Energy Commission reserves the right to do any of the following, along with any other existing rights:

- Assess how the new person might affect the Firm's score, including possibly rescoring its SOQ
- Refuse to add the new person
- Add the new person.

If the Energy Commission determines that it will not accept a new person or hourly rate that the Firm proposes for a particular person, the Energy Commission will stop rate negotiations for that person, and proceed with negotiations for the remainder of the people. Firms are cautioned that they should include all team members in their SOQ. The Energy Commission does not want to be in the position of assessing additional persons during rate negotiations.

If negotiations with the top ranked Firm fail, the Energy Commission will enter into negotiations with the next highest scoring Firm, and so on.

#### **NOTICE OF PROPOSED AWARD**

Subsequent to the negotiations, the Energy Commission will post a "Notice of Proposed Award" at the Energy Commission's headquarters in Sacramento, and on the Energy Commission's website.

California Energy Commission  
Contracts Office, MS-18  
1516 Ninth Street  
Sacramento, CA 95814

The Evaluation Committee may reject all Firms and SOQs if none are considered to be in the best interest of the Energy Commission

## **V. BUSINESS PARTICIPATION PROGRAMS**

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### **No DVBE PARTICIPATION COMPLIANCE OR BUSINESS PARTICIPATION PROGRAMS REQUIREMENT**

This RFQ is not subject any Business Participations Programs including the mandatory certified DVBE participation program. Firms are not required to include DVBEs as part of the contract team; however Attachment XX and Attachment XX are still included in this RFQ to allow the Firm to disclose DVBE participation voluntarily.

DRAFT

## VI. ADMINISTRATION

### RFQ DEFINED

The competitive method used for this procurement of services is an RFQ. An SOQ submitted in response will be scored and ranked based on the criteria in this RFQ. Every SOQ must establish in writing the Firm's ability to perform the RFQ's tasks. The Energy Commission shall conduct discussions and then select the most qualified Firm. The Energy Commission will negotiate an Agreement with the selected Firm for compensation that the Energy Commission determines to be fair and reasonable.

### DEFINITION OF KEY WORDS

Important definitions for this RFQ are presented below:

| WORD/TERM         | DEFINITION                                                                      |
|-------------------|---------------------------------------------------------------------------------|
| AFC               | Application for Certification                                                   |
| State             | State of California                                                             |
| CAM               | Commission Agreement Manager                                                    |
| CAO               | Commission Agreement Office                                                     |
| CBC               | California Building Code                                                        |
| CBO               | Chief Building Official                                                         |
| CBSC              | California Building Standards Code                                              |
| CPM               | Compliance Project Manager                                                      |
| COCs              | Conditions of Certification                                                     |
| CSCR              | California State Contracts Register                                             |
| DCBO              | Delegate Chief Building Official                                                |
| DCM               | Document Control Manager                                                        |
| Decision          | Original or Amended Energy Commission Final Decision                            |
| DESCP             | Drainage, Erosion, and Sediment Control Plan                                    |
| DGS               | Department of General Services                                                  |
| DSTS              | Document Submittal and Tracking System                                          |
| DVBE              | Disabled Veteran Business Enterprises                                           |
| EOR               | Engineer of Record                                                              |
| Energy Commission | California Energy Commission                                                    |
| Firm              | Respondent to this RFQ                                                          |
| LORS              | Laws, Ordinances, Regulations and Standards                                     |
| OSDS              | Office of Small Business and DVBE Services                                      |
| PMPD              | Presiding Members Proposed Decision                                             |
| PTA               | Petition to Amend                                                               |
| QA/QC             | Quality assurance/Quality control (QA/QC)                                       |
| RE                | Resident Engineer                                                               |
| RFQ               | Request for Qualifications, this entire document                                |
| SOQ               | Statement of Qualifications, formal written response to this document from Firm |
| STEP              | Siting, Transmission and Environmental Protection Division                      |
| SWPPP             | Storm Water Pollution Prevention Plan and Erosion Control Plan                  |

## **SOQ PRODUCTION REQUIREMENTS**

### **SOQ DEVELOPMENT COSTS**

The Firm is responsible for the cost of developing an SOQ and this cost cannot be charged to the State. The Firm is also responsible for any travel costs associated with participating in this RFQ.

### **PRINTING SERVICES**

Per Management Memo 07-06, State Agencies must procure printing services through the Office of State Publishing (OSP). Firms shall not include printing services in their SOQs.

### **CONFIDENTIAL INFORMATION**

The Energy Commission will not accept or retain any SOQs that contain confidential information or have any portion marked confidential.

### **DARFUR CONTRACTING ACT OF 2008**

Effective January 1, 2009, all solicitations must address the requirements of the Darfur Contracting Act of 2008 (Act). (Public Contract Code sections 10475, *et seq.*; Stats. 2008, Ch. 272). The Act was passed by the California Legislature and signed into law by the Governor to preclude State agencies generally from contracting with "scrutinized" companies that do business in the African nation of Sudan (of which the Darfur region is a part), for the reasons described in Public Contract Code section 10475.

A scrutinized company is a company doing business in Sudan as defined in Public Contract Code section 10476. Scrutinized companies are ineligible to, and cannot, bid on or submit an SOQ for a contract with a State agency for goods or services. (Public Contract Code section 10477(a)).

Therefore, Public Contract Code section 10478 (a) requires a company that currently has (or within the previous three years has had) business activities or other operations outside of the United States to certify that it is not a "scrutinized" company when it submits a bid or SOQ to a State agency. **(See # 1 on Attachment 2)**

A scrutinized company may still, however, submit a bid or SOQ for a contract with a State agency for goods or services if the company first obtains permission from the Department of General Services (DGS) according to the criteria set forth in Public Contract Code section 10477(b). **(See # 2 on Attachment 2)**

### **IRAN CONTRACTING ACT OF 2010**

Prior to bidding on, submitting a proposal or executing a contract or renewal for a State of California contract for goods or services of \$1,000,000 or more, a vendor must either:

a) certify it is **not** on the current list of persons engaged in investment activities in Iran created by the California Department of General Services ("DGS") pursuant to Public Contract Code section 2203(b) and is not a financial institution extending twenty million

dollars (\$20,000,000) or more in credit to another person, for 45 days or more, if that other person will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS; (See Option #1 on Attachment 9)

b) demonstrate it has been exempted from the certification requirement for that solicitation or contract pursuant to Public Contract Code section 2203(c) or (d). (See Option #2 on Attachment 9)

## **RFQ CANCELLATION AND AMENDMENTS**

If it is in the State's best interests, the Energy Commission reserves the right to do any of the following:

- Cancel this RFQ,
- Amend this RFQ as needed, or
- Reject any or all SOQs received in response to this RFQ

If the RFQ is amended, the Energy Commission will send an addendum to all parties who requested the RFQ and will also post it on the Energy Commission's website: <http://www.energy.ca.gov/contracts/index.html> and Department of General Services' website: <https://caleprocure.ca.gov/pages/LPASearch/lpa-search.aspx>.

## **ERRORS**

If a Firm discovers any ambiguity, conflict, discrepancy, omission, or other error in the RFQ, the Firm shall immediately notify the Energy Commission of such error in writing and request modification or clarification of the document. Modifications or clarifications resulting from this notice will be posted on the Energy Commission's website without divulging the source of the request for clarification. The Energy Commission shall not be responsible for failure to correct errors.

## **MODIFYING OR WITHDRAWAL OF SOQ**

A Firm may, by letter to the Contact Person at the Energy Commission, withdraw or modify a submitted SOQ before the deadline to submit an SOQ. An SOQ cannot be modified after that date and time, but an SOQ may still be withdrawn. An SOQ cannot be "timed" to expire on a specific date. For example, a statement such as the following is non-responsive to the RFQ: "This SOQ is valid for 60 days."

## **IMMATERIAL DEFECT**

The Energy Commission may waive any immaterial defect or deviation contained in a Firm's SOQ. The Energy Commission's waiver shall in no way modify the SOQ or excuse the successful Firm from full compliance.

## **FIRM DOCUMENTATION AND RESPONSIBILITIES**

### **DISPOSITION OF FIRM'S DOCUMENTS**

On the submission date, all SOQs and related material submitted in response to this RFQ become the property of the State. After the Notice of Proposed Award is posted, all SOQs and related materials become public records. In addition, all evaluation and scoring sheets become public records after the Notice of Proposed Award is posted.

### **FIRMS' ADMONISHMENT**

This RFQ contains the instructions governing the requirements for an SOQ to be submitted by interested Firms, the format in which the information is to be submitted, the material to be included, the requirements that must be met to be eligible for consideration, and Firm responsibilities. Firms must take the responsibility to carefully read the entire RFQ, ask appropriate questions in a timely manner, submit all required responses in a complete manner by the required date and time, make sure that all procedures and requirements of the RFQ are followed and appropriately addressed, and carefully reread the entire RFQ before submitting an SOQ.

### **AGREEMENT REQUIREMENTS**

The content of this RFQ shall be incorporated by reference into the final contract. See the Agreement terms and conditions included in this RFQ.

### **NO CONTRACT UNTIL SIGNED & APPROVED**

No agreement between the Energy Commission and the successful Firm is in effect until the contract is signed by the Contractor, approved at an Energy Commission Business Meeting, and signed by the Energy Commission Contracts Office Manager.

### **CONTRACT AMENDMENT**

The contract executed as a result of this RFQ will be able to be amended by mutual consent of the Energy Commission and the Contractor. The contract may require amendment as a result of project review, changes and additions, changes in project scope, or availability of funding.

### **CONFLICT OF INTEREST**

Any Energy Commission employee who participates in the selection process and any Firm seeking a contract under this RFQ are prohibited from offering, soliciting, or accepting gifts, services, goods, loans, rebates or payments of any kind (such as kickbacks) to or from one another. Except as provided by the terms of the contract, this prohibition extends both to any Energy Commission employee who manages a contract awarded under this RFQ or reviews or approves contractor work products under the contract, and to the Contractor (see Attachment 8).

**ATTACHMENT 1**  
**Contractor Status Form**  
**RFQ (INSERT NUMBER HERE)**

This document provides the Energy Commission with basic information about the Firm and its key subcontractors. Each Firm must complete, sign and include this attachment in its SOQ.

**1. Firm Information**

Full Legal Name of Firm \_\_\_\_\_

Business Address \_\_\_\_\_

\_\_\_\_\_  
(street number and name)

\_\_\_\_\_  
(city)

\_\_\_\_\_  
(county)

\_\_\_\_\_  
(state)

\_\_\_\_\_  
(zip code)

Contact Person \_\_\_\_\_ Title \_\_\_\_\_

Telephone \_\_\_\_\_ Fax \_\_\_\_\_

E-mail \_\_\_\_\_

**2. Type of Entity or Business Organization**

Organization Tax ID Number \_\_\_\_\_ How long under current ownership \_\_\_\_\_

Nature of Business Activity \_\_\_\_\_

Number of employees \_\_\_\_\_ Year established \_\_\_\_\_

Legal form of organization (check one):

☐ Sole Proprietorship

☐ Corporation

☐ LLC

☐ General Partnership

☐ Sub-Chapter S Corporation

☐ Limited Partnership

☐ Other (describe) \_\_\_\_\_

**3. Small Business Preference Claim \*\*\*NOT APPLICABLE FOR RFQ\*\*\***

Is your organization certified as a small business by the State of California, or have you applied for certification?

☐ No

☐ Yes If yes, list your OSDS Number \_\_\_\_\_

☐ Date certified \_\_\_\_\_

☐ Application submitted to Office of Small Business Certification and Resources on:  
\_\_\_\_\_ (date)



#### 4. Disabled Veteran Business Participation Acknowledgement

I certify that I have read and understand the requirements of DVBE participation and understand my obligations in regard to DVBE. I also understand that failure to meet the requirements of the DVBE will cause my SOQ to be rejected before evaluation.

DVBE Participation ☐ YES ☐ NO

DVBE Incentive Participation ☐ YES ☐ NO

DVBE Participation Amount must be documented on Attachment 3.4 Bidder Declaration.

#### 5. Statement of Qualifications Contents

Check to indicate the SOQ material you are submitting

☐ Volume #1, Administrative Response ☐ CD ROM or USB memory stick

☐ Volume #2, Technical Response

#### 6. Authorization and Certification

I hereby authorize the California Energy Commission to make any inquiries necessary to verify the information I have presented in my Application.

I hereby authorize the California Energy Commission to obtain business credit reports and make any inquiries necessary to verify and evaluate the financial condition of the applicant.

I hereby certify that this application does not contain any confidential or proprietary information.

I hereby certify to the best of my knowledge and belief that I have read, understand, and do hereby accept the terms and conditions contained in this solicitation, including the provisions of the Agreement Terms and Conditions and, further, I am willing to enter into an agreement with the Commission to conduct the proposed project according to the terms and conditions without negotiation.

I hereby certify to the best of my knowledge, and under penalty of perjury, that the information contained in this Application is correct and complete.

I hereby certify that I am authorized to complete and sign this form on behalf of the applicant.

---

Signature of Authorized Representative Date

---

Typed Name Title

**ATTACHMENT 2**  
**Darfur Contracting Act**  
**RFQ-XX-XXX**

Pursuant to Public Contract Code section 10478, if a bidder or proposer currently or within the previous three years has had business activities or other operations outside of the United States, it must certify that it is not a "scrutinized" company as defined in Public Contract Code section 10476.

Therefore, to be eligible to submit a bid or proposal, please complete only one of the following three paragraphs (via initials for Paragraph # 1 or Paragraph # 2, or via initials and certification for Paragraph # 3):

1.        \_\_\_\_\_        We do not currently have, or we have not had within the previous  
             Initials        three years, business activities or other operations outside of the United  
                                 States.
- OR**
2.        \_\_\_\_\_        We are a scrutinized company as defined in Public Contract Code  
             Initials        section 10476, but we have received written permission from the Department  
                                 of General Services (DGS) to submit a bid or proposal pursuant to Public  
                                 Contract Code section 10477(b). A copy of the written permission from DGS  
                                 is included with our bid or proposal.
- OR**
3.        \_\_\_\_\_        We currently have, or we have had within the previous three years,  
             Initials        business activities or other operations outside of the United States,  
             + certification        but we certify below that we are not a scrutinized company  
             below        as defined in Public Contract Code section 10476.

**CERTIFICATION For # 3**

I, the official named below, CERTIFY UNDER PENALTY OF PERJURY that I am duly authorized to legally bind the prospective proposer/bidder to the clause listed above in # 3. This certification is made under the laws of the State of California.

|                                                 |                                            |                          |
|-------------------------------------------------|--------------------------------------------|--------------------------|
| <i>Proposer/Bidder Firm Name (Printed)</i>      |                                            | <i>Federal ID Number</i> |
| <i>By (Authorized Signature)</i>                |                                            |                          |
| <i>Printed Name and Title of Person Signing</i> |                                            |                          |
| <i>Date Executed</i>                            | <i>Executed in the County and State of</i> |                          |

**YOUR SOQ WILL BE DISQUALIFIED UNLESS YOUR SOQ INCLUDES THIS FORM WITH EITHER  
PARAGRAPH # 1 OR # 2 INITIALED OR PARAGRAPH # 3 INITIALED AND CERTIFIED.**

**DISABLED VETERAN BUSINESS ENTERPRISE DECLARATIONS**

ATTACHMENT 3

STD. 843 (Rev. 5/2006)

**Instructions:** The disabled veteran (DV) owner(s) and DV manager(s) of the Disabled Veteran Business Enterprise (DVBE) must complete this declaration when a DVBE contractor or subcontractor will provide materials, supplies, services or equipment [Military and Veterans Code Section 999.2]. Violations are misdemeanors and punishable by imprisonment or fine and violators are liable for civil penalties. All signatures are made under penalty of perjury.

**SECTION 1**

Name of certified DVBE: \_\_\_\_\_ DVBE Ref. Number: \_\_\_\_\_

Description (materials/supplies/services/equipment proposed): \_\_\_\_\_

Solicitation/Contract Number: \_\_\_\_\_ SCPRS Ref. Number: \_\_\_\_\_

(FOR STATE USE ONLY)

**SECTION 2****APPLIES TO ALL DVBEs. Check only one box in Section 2 and provide original signatures.**

- ☐ I (we) declare that the DVBE is not a broker or agent, as defined in Military and Veterans Code Section 999.2 (b), of materials, supplies, services or equipment listed above. Also, complete Section 3 below if renting equipment.
- ☐ Pursuant to Military and Veterans Code Section 999.2 (f), I (we) declare that the DVBE is a broker or agent for the principal(s) listed below or on an attached sheet(s). *(Pursuant to Military and Veterans Code 999.2 (e), State funds expended for equipment rented from equipment brokers pursuant to contracts awarded under this section shall not be credited toward the 3-percent DVBE participation goal.)*

All DV owners and managers of the DVBE (attach additional pages with sufficient signature blocks for each person to sign):

|                                             |                                           |                        |
|---------------------------------------------|-------------------------------------------|------------------------|
| _____<br>(Printed Name of DV Owner/Manager) | _____<br>(Signature of DV Owner/ Manager) | _____<br>(Date Signed) |
|---------------------------------------------|-------------------------------------------|------------------------|

|                                             |                                          |                        |
|---------------------------------------------|------------------------------------------|------------------------|
| _____<br>(Printed Name of DV Owner/Manager) | _____<br>(Signature of DV Owner/Manager) | _____<br>(Date Signed) |
|---------------------------------------------|------------------------------------------|------------------------|

Firm/Principal for whom the DVBE is acting as a broker or agent: \_\_\_\_\_  
 (If more than one firm, list on extra sheets.) (Print or Type Name)

Firm/Principal Phone: \_\_\_\_\_ Address: \_\_\_\_\_

**SECTION 3****APPLIES TO ALL DVBEs THAT RENT EQUIPMENT AND DECLARE THE DVBE IS NOT A BROKER.**

- ☐ Pursuant to Military and Veterans Code Section 999.2 (c), (d) and (g), I am (we are) the DV(s) with at least 51% ownership of the DVBE, or a DV manager(s) of the DVBE. The DVBE maintains certification requirements in accordance with Military and Veterans Code Section 999 et. seq.
- ☐ The undersigned owner(s) own(s) at least 51% of the quantity and value of each piece of equipment that will be rented for use in the contract identified above. I (we), the DV owners of the equipment, have submitted to the administering agency my (our) personal federal tax return(s) at time of certification and annually thereafter as defined in *Military and Veterans Code 999.2, subsections (c) and (g)*. *Failure by the disabled veteran equipment owner(s) to submit their personal federal tax return(s) to the administering agency as defined in Military and Veterans Code 999.2, subsections (c) and (g), will result in the DVBE being deemed an equipment broker.*

Disabled Veteran Owner(s) of the DVBE (attach additional pages with signature blocks for each person to sign):

|                         |                      |                        |
|-------------------------|----------------------|------------------------|
| _____<br>(Printed Name) | _____<br>(Signature) | _____<br>(Date Signed) |
|-------------------------|----------------------|------------------------|

|                             |                      |                                               |
|-----------------------------|----------------------|-----------------------------------------------|
| _____<br>(Address of Owner) | _____<br>(Telephone) | _____<br>(Tax Identification Number of Owner) |
|-----------------------------|----------------------|-----------------------------------------------|

Disabled Veteran Manager(s) of the DVBE (attach additional pages with sufficient signature blocks for each person to sign):

|                                       |                                    |                        |
|---------------------------------------|------------------------------------|------------------------|
| _____<br>(Printed Name of DV Manager) | _____<br>(Signature of DV Manager) | _____<br>(Date Signed) |
|---------------------------------------|------------------------------------|------------------------|

Page 1 of 1

(Business Meeting Date)

**PRINT****CLEAR**

Attachment 3, DVBE

RFQ-XX-XXX  
(Title of Solicitation)

## BIDDER DECLARATION

**1. Prime bidder information (Review attached Bidder Declaration Instructions prior to completion of this form):**

- a. Identify current California certification(s) (MB, SB, NVSA, DVBE): \_\_\_\_\_ or None ☐ (If "None," go to Item #2)
- b. Will subcontractors be used for this contract? Yes ☐ No ☐ (If yes, indicate the distinct element of work your firm will perform in this contract e.g., list the proposed products produced by your firm, state if your firm owns the transportation vehicles that will deliver the products to the State, identify which solicited services your firm will perform, etc.). Use additional sheets, as necessary.

- c. If you are a California certified DVBE:
- (1) Are you a broker or agent? Yes ☐ No ☐
- (2) If the contract includes equipment rental, does your company own at least 51% of the equipment provided in this contract (quantity and value)? Yes ☐ No ☐ N/A ☐

**2. If no subcontractors will be used, skip to certification below. Otherwise, list all subcontractors for this contract. (Attach additional pages if necessary):**

| Subcontractor Name, Contact Person,<br>Phone Number & Fax Number | Subcontractor Address<br>& Email Address | CA Certification (MB, SB,<br>NVSA, DVBE or None) | Work performed or goods provided<br>for this contract | Corresponding<br>% of bid price | Good<br>Standing?        | 51%<br>Rental?           |
|------------------------------------------------------------------|------------------------------------------|--------------------------------------------------|-------------------------------------------------------|---------------------------------|--------------------------|--------------------------|
|                                                                  |                                          |                                                  |                                                       | 3%                              | <input type="checkbox"/> | <input type="checkbox"/> |
|                                                                  |                                          |                                                  |                                                       |                                 | <input type="checkbox"/> | <input type="checkbox"/> |
|                                                                  |                                          |                                                  |                                                       |                                 | <input type="checkbox"/> | <input type="checkbox"/> |

**CERTIFICATION:** By signing the bid response, I certify under penalty of perjury that the information provided is true and correct.

## BIDDER DECLARATION Instructions

All prime bidders (the firm submitting the bid) must complete the Bidder Declaration.

1.a. Identify all current certifications issued by the State of California. If the prime bidder has no California certification(s), check the line labeled "None" and proceed to Item #2. If the prime bidder possesses one or more of the following certifications, enter the applicable certification(s) on the line:

- Microbusiness (MB)
- Small Business (SB)
- Nonprofit Veteran Service Agency (NVSA)
- Disabled Veteran Business Enterprise (DVBE)

1.b. Mark either "Yes" or "No" to identify whether subcontractors will be used for the contract. If the response is "No," proceed to Item #1.c. If "Yes," enter on the line the distinct element of work contained in the contract to be performed or the goods to be provided by the prime bidder. Do not include goods or services to be provided by subcontractors.

Bidders certified as MB, SB, NVSA, and/or DVBE must provide a commercially useful function as defined in Military and Veterans Code Section 999 for DVBEs and Government Code Section 14837(d)(4)(A) for small/microbusinesses.

Bids must propose that certified bidders provide a commercially useful function for the resulting contract or the bid will be deemed non-responsive and rejected by the State. For questions regarding the solicitation, contact the procurement official identified in the solicitation.

**Note: A subcontractor is any person, firm, corporation, or organization contracting to perform part of the prime's contract.**

1.c. This item is only to be completed by businesses certified by California as a DVBE.

- (1) Declare whether the prime bidder is a broker or agent by marking either "Yes" or "No." The Military and Veterans Code Section 999.2 (b) defines "broker" or "agent" as a certified DVBE contractor or subcontractor that does not have title, possession, control, and risk of loss of materials, supplies, services, or equipment provided to an awarding department, unless one or more of the disabled veteran owners has at least 51-percent ownership of the quantity and value of the materials, supplies, services, and of each piece of equipment provided under the contract.
- (2) If bidding rental equipment, mark either "Yes" or "No" to identify if the prime bidder owns at least 51% of the equipment provided (quantity and value). If not bidding rental equipment, mark "N/A" for "not applicable."

2. If no subcontractors are proposed, do not complete the table. Read the certification at the bottom of the form and complete "Page \_\_\_\_ of \_\_\_\_" on the form.

If subcontractors will be used, complete the table listing all subcontractors. If necessary, attach additional pages and complete the "Page \_\_\_\_ of \_\_\_\_" accordingly.

2. (continued) Column Labels

**Subcontractor Name, Contact Person, Phone Number & Fax Number**—List each element for all subcontractors.

**Subcontractor Address & Email Address**—Enter the address and if available, an Email address.

**CA Certification (MB, SB, NVSA, DVBE or None)**—If the subcontractor possesses a current State of California certification(s), verify on this website ([www.eprocure.pd.dgs.ca.gov](http://www.eprocure.pd.dgs.ca.gov)).

**Work performed or goods provided for this contract**—Identify the distinct element of work contained in the contract to be performed or the goods to be provided by each subcontractor. Certified subcontractors must provide a commercially useful function for the contract. (See paragraph 1.b above for code citations regarding the definition of commercially useful function.) If a certified subcontractor is further subcontracting a greater portion of the work or goods provided for the resulting contract than would be expected by normal industry practices, attach a separate sheet of paper explaining the situation.

**Corresponding % of bid price**—Enter the corresponding percentage of the total bid price for the goods and/or services to be provided by each subcontractor. Do not enter a dollar amount.

**Good Standing?**—Provide a response for each subcontractor listed. Enter either "Yes" or "No" to indicate that the prime bidder has verified that the subcontractor(s) is in good standing for all of the following:

- Possesses valid license(s) for any license(s) or permits required by the solicitation or by law
- If a corporation, the company is qualified to do business in California and designated by the State of California Secretary of State to be in good standing
- Possesses valid State of California certification(s) if claiming MB, SB, NVSA, and/or DVBE status

**51% Rental?**—This pertains to the applicability of rental equipment. Based on the following parameters, enter either "N/A" (not applicable), "Yes" or "No" for each subcontractor listed.

Enter "N/A" if the:

- Subcontractor is NOT a DVBE (regardless of whether or not rental equipment is provided by the subcontractor) or
- Subcontractor is NOT providing rental equipment (regardless of whether or not subcontractor is a DVBE)

Enter "Yes" if the subcontractor is a California certified DVBE providing rental equipment and the subcontractor owns at least 51% of the rental equipment (quantity and value) it will be providing for the contract.

Enter "No" if the subcontractor is a California certified DVBE providing rental equipment but the subcontractor does NOT own at least 51% of the rental equipment (quantity and value) it will be providing.

Read the certification at the bottom of the page and complete the "Page \_\_\_\_ of \_\_\_\_" accordingly.

**ATTACHMENT 5**  
**Contractor Certification Clauses**  
**RFQ -XX-XXX**

**CERTIFICATION**

I, the official named below, CERTIFY UNDER PENALTY OF PERJURY that I am duly authorized to legally bind the prospective Contractor to the clause(s) listed below. This certification is made under the laws of the State of California.

|                                                 |                                  |                          |
|-------------------------------------------------|----------------------------------|--------------------------|
| <i>Contractor/Bidder Firm Name (Printed)</i>    |                                  | <i>Federal ID Number</i> |
| <i>By (Authorized Signature)</i>                |                                  |                          |
| <i>Printed Name and Title of Person Signing</i> |                                  |                          |
| <i>Date Executed</i>                            | <i>Executed in the County of</i> |                          |

**CONTRACTOR CERTIFICATION CLAUSES**

1. **STATEMENT OF COMPLIANCE:** Contractor has, unless exempted, complied with the nondiscrimination program requirements. (Gov. Code §12990 (a-f) and CCR, Title 2, Section 8103) (Not applicable to public entities.)
2. **DRUG-FREE WORKPLACE REQUIREMENTS:** Contractor will comply with the requirements of the Drug-Free Workplace Act of 1990 and will provide a drug-free workplace by taking the following actions:
  - a. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations.
  - b. Establish a Drug-Free Awareness Program to inform employees about:
    - 1) the dangers of drug abuse in the workplace;
    - 2) the person's or organization's policy of maintaining a drug-free workplace;
    - 3) any available counseling, rehabilitation and employee assistance programs; and,
    - 4) penalties that may be imposed upon employees for drug abuse violations.
  - c. Every employee who works on the proposed Agreement will:
    - 1) receive a copy of the company's drug-free workplace policy statement; and,
    - 2) agree to abide by the terms of the company's statement as a condition of employment on the Agreement.

Failure to comply with these requirements may result in suspension of payments under the Agreement or termination of the Agreement or both and Contractor may be ineligible for award of any future State agreements if the department determines that any of the following has occurred: the Contractor has made false certification, or violated the certification by failing to carry out the requirements as noted above. (Gov. Code §8350 et seq.)

## **CERTIFICATION CLAUSES**

CCC-307

3. **NATIONAL LABOR RELATIONS BOARD CERTIFICATION:** Contractor certifies that no more than one (1) final unappealable finding of contempt of court by a Federal court has been issued against Contractor within the immediately preceding two-year period because of Contractor's failure to comply with an order of a Federal court, which orders Contractor to comply with an order of the National Labor Relations Board. (Pub. Contract Code §10296) (Not applicable to public entities.)
4. **CONTRACTS FOR LEGAL SERVICES \$50,000 OR MORE- PRO BONO REQUIREMENT:**  
Contractor hereby certifies that contractor will comply with the requirements of Section 6072 of the Business and Professions Code, effective January 1, 2003.  
  
Contractor agrees to make a good faith effort to provide a minimum number of hours of pro bono legal services during each year of the contract equal to the lessor of 30 multiplied by the number of full time attorneys in the firm's offices in the State, with the number of hours prorated on an actual day basis for any contract period of less than a full year or 10% of its contract with the State.  
  
Failure to make a good faith effort may be cause for non-renewal of a state contract for legal services, and may be taken into account when determining the award of future contracts with the State for legal services.
5. **EXPATRIATE CORPORATIONS:** Contractor hereby declares that it is not an expatriate corporation or subsidiary of an expatriate corporation within the meaning of Public Contract Code Section 10286 and 10286.1, and is eligible to contract with the State of California.
6. **SWEATFREE CODE OF CONDUCT:**
  - a. All Contractors contracting for the procurement or laundering of apparel, garments or corresponding accessories, or the procurement of equipment, materials, or supplies, other than procurement related to a public works contract, declare under penalty of perjury that no apparel, garments or corresponding accessories, equipment, materials, or supplies furnished to the state pursuant to the contract have been laundered or produced in whole or in part by sweatshop labor, forced labor, convict labor, indentured labor under penal sanction, abusive forms of child labor or exploitation of children in sweatshop labor, or with the benefit of sweatshop labor, forced labor, convict labor, indentured labor under penal sanction, abusive forms of child labor or exploitation of children in sweatshop labor. The contractor further declares under penalty of perjury that they adhere to the Sweatfree Code of Conduct as set forth on the California Department of Industrial Relations website located at [www.dir.ca.gov](http://www.dir.ca.gov), and Public Contract Code Section 6108.
  - b. The contractor agrees to cooperate fully in providing reasonable access to the contractor's records, documents, agents or employees, or premises if reasonably required by authorized officials of the contracting agency, the Department of Industrial Relations, or the Department of Justice to determine the contractor's compliance with the requirements under paragraph (a).
7. **DOMESTIC PARTNERS:** For contracts over \$100,000 executed or amended after January 1, 2007, the contractor certifies that contractor is in compliance with Public Contract Code section 10295.3.

### **DOING BUSINESS WITH THE STATE OF CALIFORNIA**

The following laws apply to persons or entities doing business with the State of California.

1. **CONFLICT OF INTEREST:** Contractor needs to be aware of the following provisions regarding current or former state employees. If Contractor has any questions on the status of any person rendering services or involved with the Agreement, the awarding agency must be contacted immediately for clarification.



## **CERTIFICATION CLAUSES**

CCC-307

### **Current State Employees (Pub. Contract Code §10410):**

- 1) No officer or employee shall engage in any employment, activity or enterprise from which the officer or employee receives compensation or has a financial interest and which is sponsored or funded by any state agency, unless the employment, activity or enterprise is required as a condition of regular state employment.
- 2) No officer or employee shall contract on his or her own behalf as an independent contractor with any state agency to provide goods or services.

### **Former State Employees (Pub. Contract Code §10411):**

- 1) For the two-year period from the date he or she left state employment, no former state officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements or any part of the decision-making process relevant to the contract while employed in any capacity by any state agency.
- 2) For the twelve-month period from the date he or she left state employment, no former state officer or employee may enter into a contract with any state agency if he or she was employed by that state agency in a policy-making position in the same general subject area as the proposed contract within the 12-month period prior to his or her leaving state service.

If Contractor violates any provisions of above paragraphs, such action by Contractor shall render this Agreement void. (Pub. Contract Code §10420)

Members of boards and commissions are exempt from this section if they do not receive payment other than payment of each meeting of the board or commission, payment for preparatory time and payment for per diem. (Pub. Contract Code §10430 (e))

2. **LABOR CODE/WORKERS' COMPENSATION:** Contractor needs to be aware of the provisions which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions, and Contractor affirms to comply with such provisions before commencing the performance of the work of this Agreement. (Labor Code Section 3700)
3. **AMERICANS WITH DISABILITIES ACT:** Contractor assures the State that it complies with the Americans with Disabilities Act (ADA) of 1990, which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA. (42 U.S.C. 12101 et seq.)
4. **CONTRACTOR NAME CHANGE:** An amendment is required to change the Contractor's name as listed on this Agreement. Upon receipt of legal documentation of the name change the State will process the amendment. Payment of invoices presented with a new name cannot be paid prior to approval of said amendment.
5. **CORPORATE QUALIFICATIONS TO DO BUSINESS IN CALIFORNIA:**
  - a. When agreements are to be performed in the state by corporations, the contracting agencies will be verifying that the contractor is currently qualified to do business in California in order to ensure that all obligations due to the state are fulfilled.
  - b. "Doing business" is defined in R&TC Section 23101 as actively engaging in any transaction for the purpose of financial or pecuniary gain or profit. Although there are some statutory

## **CERTIFICATION CLAUSES**

CCC-307

exceptions to taxation, rarely will a corporate contractor performing within the state not be subject to the franchise tax.

- c. Both domestic and foreign corporations (those incorporated outside of California) must be in good standing in order to be qualified to do business in California. Agencies will determine whether a corporation is in good standing by calling the Office of the Secretary of State.
6. **RESOLUTION**: A county, city, district, or other local public body must provide the State with a copy of a resolution, order, motion, or ordinance of the local governing body which by law has authority to enter into an agreement, authorizing execution of the agreement.
7. **AIR OR WATER POLLUTION VIOLATION**: Under the State laws, the Contractor shall not be: (1) in violation of any order or resolution not subject to review promulgated by the State Air Resources Board or an air pollution control district; (2) subject to cease and desist order not subject to review issued pursuant to Section 13301 of the Water Code for violation of waste discharge requirements or discharge prohibitions; or (3) finally determined to be in violation of provisions of federal law relating to air or water pollution.
8. **PAYEE DATA RECORD FORM STD. 204**: This form must be completed by all contractors that are not another state agency or other governmental entity.

**ATTACHMENT 6**  
**Standard Agreement Example**

**STANDARD AGREEMENT**

STD. 213 (NEW 06/03)

AGREEMENT NUMBER

XXX-XX-XXX

REGISTRATION NUMBER

1. This Agreement is entered into between the State Agency and the Contractor named below

STATE AGENCY'S NAME

State Energy Resources Conservation and Development Commission (Commission)

CONTRACTOR'S NAME

2. The term of this Agreement is: Date through Date. The effective date of this Agreement is either the start date or the approval date by the Dept. of General Services, whichever is later. No work shall commence until the effective date.

3. The maximum amount of this Agreement is: \$

4. The parties agree to comply with the terms and conditions of the following Exhibits which are by this reference made a part of the Agreement:

|                                                                                      |         |
|--------------------------------------------------------------------------------------|---------|
| Exhibit A – Scope of Work                                                            | Pages   |
| Exhibit B – Budget Detail and Payment Provisions                                     |         |
| Exhibit B-1 – Third Party Beneficiary Language                                       | Pages   |
| Exhibit C* – General Terms and Conditions                                            | GTC 610 |
| Exhibit D – Special Terms and Conditions (Attached hereto as part of this agreement) | Pages   |
| Exhibit E – Additional Provisions                                                    | Pages   |
| Exhibit F – Conflict of Interest Provisions                                          | Page    |
| Exhibit G – Contacts                                                                 |         |
| Exhibit H – DCBO Best Management Practices Guide                                     |         |

Items shown with an Asterisk (\*), are hereby incorporated by reference and made part of this agreement as if attached hereto. These documents can be viewed at <http://www.ols.dgs.ca.gov/Standard%20Language/default.htm>.

**IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.**

**CONTRACTOR**

CONTRACTOR'S NAME (If other than an individual, state whether a corporation, partnership, etc.)

BY (Authorized Signature)



DATE SIGNED (Do not type)

PRINTED NAME AND TITLE OF PERSON SIGNING

ADDRESS

**STATE OF CALIFORNIA**

AGENCY NAME

State Energy Resources Conservation and Development Commission (Commission)

BY (Authorized Signature)



DATE SIGNED (Do not type)

PRINTED NAME AND TITLE OF PERSON SIGNING

ADDRESS

1516 Ninth Street, Sacramento, CA 95814

California Department of General  
Services Use Only

☐ Exempt per:

**EXHIBIT A**

**Scope of Work described in the RFQ**

ATTACHMENT 6  
Standard Agreement Example

**EXHIBIT B**

**Budget Detail and Payment Provisions**

**1. PAYMENT PROVISIONS**

Payment for DCBO services will be made by the Project Owner through a separate Agreement between the Contractor and the Project Owner. Contractor shall enter into a separate contract with the Project Owner for payment of DCBO services that Contractor provides under this Contract. The Contractor shall incorporate Exhibit B-1 in the Agreement between the Contractor and Project Owner, and the Energy Commission shall be an express and intended creditor third-party beneficiary in the Agreement between the Contractor and Project Owner.

**2. RATES**

The Contractor shall invoice the Project Owner for DCBO services under Agreement [insert contract #] in accordance with the budget and rates negotiated between the Contractor and the Energy Commission. The Energy Commission is not liable for any payments to the Contractor.

**3. TRAVEL AND PER DIEM RATES**

The Contractor shall invoice the Project Owner for travel and per diem expenses using the Energy Commission Contractor Travel Rates. The Contractor must pay for travel in excess of these rates. The Contractor may obtain current rates from the Energy Commission's Web Site at: [http://www.energy.ca.gov/contracts/TRAVEL\\_PER\\_DIEM.PDF](http://www.energy.ca.gov/contracts/TRAVEL_PER_DIEM.PDF).

**4. RATES & CLASSIFICATIONS: CHANGES IN CONTRACTOR PERSONNEL OR SUBCONTRACTOR PERSONNEL**

This section contains provisions allowing rate and classification changes without a formal amendment. Exhibit D contains the rules for adding or replacing personnel and subcontractors listed in the Agreement. When a Contractor makes personnel and subcontractor changes in accordance with Exhibit D that do not require a formal amendment, the following rules explain the rates and classifications for which the Contractor can invoice. Changes outside of these rules require a formal amendment to the Agreement.

**A. New Personnel**

If Contractor or a subcontractor adds new personnel after the Agreement has been executed, the Contractor shall submit the new personnel's resume and proposed job classification/rate, consistent with classifications/rates within the respective budget, to CAM for review and approval. If the Agreement budget includes a job classification with the person identified as "To Be Determined", and a person is later identified, this person is considered to be new personnel. The new personnel shall not provide services until the CAM approves the new personnel request in writing and notifies the Commission Agreement Officer (CAO). Any work performed by these new personnel prior to CAM approval is at Contractor's expense.

**B. Labor Rates & Classifications**

The Agreement budget identifies individuals and/or job classifications and the maximum rates that the Contractor can invoice for them. The Contractor shall only invoice for the actual rates up to the maximum amount listed. Contractor can only increase rates or add new job classifications to the Agreement through a formal amendment to this Agreement.

**1. Contractor Changes: Addition or Replacement of Personnel**

**a) Labor Rates**

If the Contractor adds a new person to a job classification listed in the Contractor's budget or replaces a person listed in the Contractor's budget, the Contractor can only invoice for the new person's actual rate up to the maximum amount listed for that classification in the Contractor's budget. The Contractor cannot use for its personnel a rate of a subcontractor.

**b) Classifications**

Additions or replacement of personnel can only be made within existing job classifications identified in the Contractor's budget. The Contractor cannot use for its personnel a job classification of a subcontractor. The new person must be invoiced within job classifications that already exist in the budget for the Contractor. If the Contractor wishes to add a new job classification to the Agreement (for instance to bring in a new person or possibly promote a person) this will require a formal amendment to the Agreement.

**c) Promotions**

Contractor personnel listed in the Contractor's budget can be moved to a higher-paying job classification listed in the Contractor's budget with prior written approval of the CAM and the appropriate Division Deputy Director. The written approval must be submitted to the CAO.

**2. Subcontractor Changes: Addition or Replacement of Personnel**

**a) Labor Rates**

If a subcontractor adds a new person to a job classification listed in the subcontractor's budget or replaces a person listed in the subcontractor's budget for that subcontractor, the subcontractor can only invoice for the new person's actual rate up to the maximum amount listed for that classification in the subcontractor's budget. The subcontractor cannot use for its personnel a rate of another subcontractor or of the Contractor.

**b) Classifications**

Additions or replacement of personnel can only be made within existing job classifications identified in the subcontractor's budget. The

**ATTACHMENT 6**  
**Standard Agreement Example**

subcontractor cannot use for its personnel a job classification of another subcontractor or of the Contractor. The new person must be invoiced within job classifications that already exist in the budget for the subcontractor. If the subcontractor wishes to add a new job classification to the Agreement (for instance to bring in a new person or possibly promote a person) this will require a formal amendment to the Agreement.

c) Promotions

Subcontractor personnel listed in the subcontractor's budget can be moved to a higher-paying job classification listed in the subcontractor's budget with prior written approval of the CAM and the appropriate Division Deputy Director. The written approval must be submitted to the CAO.

C. Changes in Assigned Personnel Hours

Contractor may move hours allocated for a specific person (employee or subcontractor) to another person listed in the Agreement, upon written notification to the CAM. However such changes cannot change the amount of the budget for the task or labor category. If a change in personnel will result in a change in the dollar amount of the task or in the labor category, then the Agreement or Work Authorization must be amended.

5. **BUDGET DETAIL**

Budget detail is contained in the Attachments to this Exhibit.



**EXHIBIT B-1**

**Third-Party Beneficiary Language**  
**for Contract Between Project Owner and Delegate Chief Building Official (DCBO)**

All of the following provisions must be included in the Agreement between the Project Owner and the DCBO:

**1. Parties**

- A. [Name of Applicant] (herein after referred to as "Project Owner") is the Project Owner of [Name of Project] ("Project"), Docket Log [#], which is under review by the California Energy Commission ("Energy Commission"). Review by the Energy Commission is evidenced by the Presiding Member's Proposed Decision ("Proposed Decision"), which includes draft conditions of certification providing the requirements for project construction, operation and closure. Approval of the Project by the Energy Commission is evidenced by the Presiding Member's Final Decision ("Final Decision"), which includes conditions of certification providing the requirements for project construction, operation and closure. The DCBO and Project Owner must construct the Project according to the requirements in the Final Decision.
- B. Project Owner is a party to [Name of Agreement between Project Owner and DCBO].
- C. The Energy Commission has authority to approve the Project pursuant to Public Resources Code Section 25500 *et. seq.* Under the California Building Code Standards (CBCS), while monitoring project construction and operation, staff of the Energy Commission acts as, and has the authority of, the Chief Building Official.
- D. [Name of DCBO Firm] was selected by the Energy Commission as its Delegated Chief Building Official ("DCBO") in accordance with the California Building Standards Code (California Code of Regulations, Title 24, Parts 1 through 12) to verify compliance with all applicable conditions of certification in the Final Decision, and facilitate compliance with the design, plan review, construction inspection and monitoring for the Project facility's compliance plan in accordance with all appropriate building codes; laws, ordinances, regulations and standards ("LORS"); and Energy Commission requirements. [Name of DCBO Firm] (hereinafter referred to as "DCBO") is a party to [Name of Agreement between Project Owner and DCBO].

**2. Express Third-Party Beneficiary**

- A. To ensure proper enforcement of the Energy Commission's Final Decision and the success of the Project, in the event that the Energy Commission approves the Project, the Energy Commission is the express and intended creditor third-party beneficiary in [Name of Agreement between Project Owner and DCBO] between Project Owner and DCBO.
- B. The Energy Commission does not guarantee the approval of the Project by being named the creditor third-party beneficiary in [Name of Agreement between Project Owner and DCBO].
- C. DCBO entered into [Name of Agreement between Project Owner and DCBO] for the express benefit of the Energy Commission as the creditor third-party beneficiary. It is recognized that DCBO's performance under [Name of Agreement between Project Owner and DCBO] is tied to and related to Project Owner's obligations under the Energy

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Commission's conditions of certification in its Final Decision. DCBO acknowledges that its performance under [Name of Agreement between Project Owner and DCBO] is the benefit contemplated by Project Owner and is a motivating cause of making [Name of Agreement between Project Owner and DCBO]. Naming the Energy Commission as the creditor third-party beneficiary is a material condition of [Name of Agreement between Project Owner and DCBO].

- D. In the event the Energy Commission approves the Project, the Energy Commission must ensure that the Project is designed, constructed, and operated in conformity with the Final Decision; the California Building Standards Code (CBSC); the local building codes adopted by the [County or City] of [Enter name of County or City]; and LORS. If the Project Owner anticipates site mobilization immediately following issuance of the Final Decision, the Project Owner may be permitted to file compliance submittals prior to the issuance of the Final Decision. Compliance verifications may be submitted in advance of the Final Decision, but the Project Owner submits the compliance verifications at its own risk. Additionally, any work undertaken by DCBO prior to the issuance of the Final Decision shall be performed at the sole risk of DCBO. Any compliance approvals by Energy Commission staff prior to the issuance of the Final Decision are subject to change, and staff compliance approvals provided before the issuance of the Final Decision does not imply that the Energy Commission will approve the Project for actual construction and operation.
- E. DCBO, as the delegate of the Energy Commission, shall be compensated by Project Owner to certify Project Owner's obligations for compliance with the conditions of certification in the Final Decision. [Name of DCBO Firm] shall charge Project Owner, and Project Owner shall compensate [name of DCBO firm], **Option A:** for work satisfactorily completed in advance, in arrears, or from a credit account established with the DCBO Firm by the Project Owner **OR Option B:** for services based on the rates in the attached rate schedule (Appendix [X]) negotiated between the Energy Commission and DCBO. **(to be determined)**

3. Duties of Project Owner and DCBO

- A. The Final Decision will require that [Name of Project Owner], or current Project Owner, submit engineering plans, calculations, specifications, and other project-related facility design, construction, and operational compliance information (as required by sections 105.3 and 106.1 in Appendix Chapter 1 of the California Building Standards Code) to DCBO prior to and during construction of the Project, for review and oversight by the Energy Commission pursuant to the terms and conditions of its Final Decision as specified in California Public Resources Code section 25500 *et seq.*
- B. The design review, construction inspections, and necessary approvals prior to and during construction will be provided by DCBO, a fully qualified chief building official contractor experienced in providing industrial building official services, acting as the Energy Commission's delegate to ensure independent review of the Project.
- C. Although DCBO will function as the Energy Commission's delegate, the Energy Commission has the final authority and responsibility to ensure that the Project is built in accordance with the applicable engineering LORS, the Decision, and subsequent amendments.
- D. DCBO shall carry out these duties with all the rights and immunities afforded the Chief Building Official by applicable LORS and building codes.

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- E. DCBO is authorized to take any action allowed by the California Code of Regulations and the CBSC to ensure that the Energy Commission's interests are properly addressed and protected. If DCBO has issued, or is considering issuing, a stop-work order to ensure compliance, to ensure that the Energy Commission's interests are protected, or for any other reason, DCBO shall seek the cooperation and assistance of the Energy Commission's Compliance Project Manager ("CPM").
- F. Project Owner shall maintain its books, records, documents, and other evidence sufficient to properly reflect all payments made to DCBO under [Name of Agreement between Project Owner and DCBO] for a period of three (3) years after final payment to DCBO. Project Owner shall permit the Energy Commission, another state agency, and/or a public accounting firm designated by the Energy Commission to audit Project Owner's accounting records associated with [Name of Agreement between Project Owner and DCBO] at all reasonable times, with prior notice by the Energy Commission.
- G. Project Owner shall provide the Energy Commission with two (2) copies of the executed [Name of Agreement between Project Owner and DCBO].

4. Enforcement

- A. [Name of Agreement between Project Owner and DCBO] is made expressly for the benefit of the Energy Commission as the creditor third-party beneficiary and may be enforced by the Energy Commission at any time.
- B. The Energy Commission has a right of enforcement and may elect to take enforcement action against Project Owner or DCBO, and may join them in one action, for failure to perform under [Name of Agreement between Project Owner and DCBO].
- C. Nothing in [Name of Agreement between Project Owner and DCBO] will limit or impede the Energy Commission's legal authority to enforce the terms and conditions of its Decision as specified in Public Resources Code sections 25534 and 25900. The Energy Commission may amend or revoke a project certification and may impose a civil penalty for any significant failure to comply with the terms or conditions of the Decision.

5. Satisfactory Performance

Project Owner and DCBO agree that DCBO's work under [Name of Agreement between Project Owner and DCBO] must be performed to the satisfaction of the Energy Commission and that the Energy Commission shall decide all questions as to the adequacy of DCBO's performance. However, lack of objection by the Energy Commission shall not constitute a waiver or estoppel of the Energy Commission's rights and remedies. Failure of DCBO to comply with the roles, responsibilities, and tasks expected of an DCBO service provider may be a basis for its termination as the delegate of the Energy Commission.

6. Amendment, Assignment and Termination

Project Owner and DCBO agree that [Name of Agreement between Project Owner and DCBO] confers rights and remedies upon the Energy Commission as the creditor third-party beneficiary. No person, other than Project Owner, DCBO, and the Energy Commission, has any rights or remedies under [Name of Agreement between Project Owner and DCBO]. Project Owner and DCBO further agree:

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**A. No Right to Amend without Consent of the Energy Commission**

Neither Project Owner nor DCBO shall amend [Reference to Section] of [Name of Agreement between Project Owner and DCBO] expressly naming the Energy Commission as the creditor third-party beneficiary to the Agreement, without the prior written consent of the Energy Commission.

**B. No Right to Assign and Delegate without Consent of the Energy Commission**

Neither Project Owner nor DCBO shall assign or delegate the duties and responsibilities of Project Owner or DCBO, without the prior written consent of the Energy Commission.

**C. No Right to Terminate without Consent of the Energy Commission**

Neither Project Owner nor DCBO shall terminate [Name of Agreement between Project Owner and DCBO] or terminate payments to DCBO under [Name of Agreement between Project Owner and DCBO] without the prior written consent of the Energy Commission.

**7. No Liability**

Project Owner and DCBO agree that the Energy Commission, as intended creditor third-party beneficiary, is not liable for any events or occurrences that result in harm to persons or property during the course of construction or operation of the Project. The Energy Commission assumes no liability for errors and omissions on the design elements of the Project. If Project Owner or DCBO fail to perform their obligations under [Name of Agreement between Project Owner and DCBO], the Energy Commission shall in no way have any liability to any parties that may be harmed as a result of failure of Project Owner or DCBO to perform their obligations. Further, the Energy Commission is in no way liable for payment to DCBO for its services in the event Project Owner fails to make timely payment.

**8. Flow-Down Rights in Subcontracts**

- A. DCBO may retain the services of one or more independent qualified subcontractor(s) to supplement its employees in the environmental monitoring, design review, plan check, and construction inspection of the project. The subcontractor(s) shall answer directly to, and be responsible to, DCBO. DCBO shall retain responsibility for the construction inspections required by Appendix Chapter 1, section 109 of the CBSC and for monitoring special inspections required by Chapter 17, section 1704 and 1707 of the CBSC.
- B. It is expressly recognized that DCBO's performance under [Name of Agreement between Project Owner and DCBO] is tied to and related to the performance of its subcontractor(s). The Energy Commission shall be expressly recognized and acknowledged as an intended creditor third-party beneficiary in all contracts between DCBO and its subcontractor(s). DCBO shall reserve for the Energy Commission, as an intended creditor third-party beneficiary, the right to proceed directly against its subcontractor(s) in the event subcontractor(s) breaches or fails to perform in whole or in part as required in its contract(s) with DCBO. The Energy Commission's right to proceed against subcontractor(s) shall be made independent of DCBO's rights.
- C. DCBO shall provide the Energy Commission two (2) copies of all executed contracts it enters into with subcontractor(s) in order to substantiate compliance with the requirements of [Name of Agreement between Project Owner and DCBO].

**EXHIBIT D**

**Special Terms and Conditions**

**1. INTRODUCTION**

This Contract is between the California Energy Commission (Energy Commission) and [insert contractor]. This Contract includes: (1) the Agreement signature page (form STD. 2150; (2) the Scope of Work (Exhibit A); (3) the budget and payment provisions (Exhibit B and B-1); (4) general terms and conditions (Exhibit C); (5) special terms and conditions (Exhibit D); (6) additional provisions (Exhibit E); (7) Conflict of Interest Provisions (Exhibit F); (8) the DCBO Best Practices Guide (Exhibit G); (9) a contacts list (Exhibit H); (10) all attachments; and (11) all documents incorporated by reference.

**2. DOCUMENTS INCORPORATED BY REFERENCE**

The documents below are incorporated by reference into this Agreement. These terms and conditions will govern in the event of a conflict with the documents below, with the exception of the documents in subsection (h). Where this Agreement or California laws and regulations are silent or do not apply, the Energy Commission will use the federal cost principles and acquisition regulations listed below as guidance in determining the allowability of items included in the budget. Documents incorporated by reference include:

**Solicitation Documents (if applicable)**

- a. The funding solicitation for the project supported by this Agreement
- b. The Contractor's proposal submitted in response to the solicitation

**Department of General Services Terms and Conditions**

- c. Exhibit C, General Terms and Conditions (GTC 610)
- d. Contractor Certification Clauses (CCC 307), as incorporated by reference in Exhibit C (GTC 610), Section 11.

**Federal Cost Principles (applicable to state and local governments, Indian tribes, institutions of higher education, and nonprofit organizations)**

- e. 2 Code of Federal Regulations (CFR) Part 200, Subpart E (Sections 200.400 et seq.)

**Federal Acquisition Regulations (applicable to commercial organizations)**

- f. 48 CFR, Ch.1, Subchapter E, Part 31, Subpart 31.2: Contracts with Commercial Organizations (supplemented by 48 CFR, Ch. 9, Subchapter E, Part 931, Subpart 931.2 for Department of Energy grants)

**Federal Audit Requirements**

- g. 2 CFR Part 200, Subpart F (Sections 200.500 et seq.): Audits of States, Local Governments, and Non-Profit Organizations

**Nondiscrimination**

- h. 2 California Code of Regulations, Section 8101 et seq.: Contractor Nondiscrimination and Compliance

**General Laws**

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- i. Any federal, state, or local laws or regulations applicable to the project that are not expressly listed in this Agreement
- j. 10 CFR Part 600: U.S. Department of Energy Financial Assistance Regulations

**3. AGREEMENT MANAGEMENT**

- A. Contractor may change Project Manager but the Energy Commission reserves the right to approve any substitution of the Project Manager.
- B. The Energy Commission may change the Energy Commission Agreement Manager (CAM) at any time and will send a written notice to the Contractor signed by the Energy Commission Agreement Officer (CAO).
- C. Commission staff will be permitted to work side by side with Contractor's staff to the extent and under conditions that may be directed by the CAM. In this connection, Commission staff will be given access to all data, working papers, etc., which Contractor may seek to utilize.
- D. Contractor will not be permitted to utilize Energy Commission personnel for the performance of services, which are the responsibility of Contractor unless the CAM previously agrees to such utilization in writing and an appropriate adjustment in price is made. No charge will be made to Contractor for the services of Energy Commission employees while performing, coordinating or monitoring functions.

**2. STANDARD OF PERFORMANCE**

Contractor shall be responsible in the performance of Contractor's/subcontractor's work under this Agreement for exercising the degree of skill and care required by customarily accepted good professional practices and procedures. Any costs for failure to meet these standards, or otherwise defective services, which require reperformance, as directed by CAM or its designee, shall be borne in total by the Contractor/subcontractor and not the Energy Commission. In the event the Contractor/subcontractor fails to perform in accordance with the above standard the following will apply. Nothing contained in this section is intended to limit any of the rights or remedies which the Energy Commission may have under law.

- A. Contractor/subcontractor will reperform, at its own expense, any task, which was not performed to the reasonable satisfaction of the CAM. Any work reperformed pursuant to this paragraph shall be completed within the time limitations originally set forth for the specific task involved. Contractor/subcontractor shall work any overtime required to meet the deadline for the task at no additional cost to the Energy Commission.
- B. The Energy Commission shall provide a new schedule for the reperformance of any task pursuant to this paragraph in the event that reperformance of a task within the original time limitations is not feasible.
- C. If the Energy Commission directs the Contractor not to reperform a task; the CAM and Contractor shall negotiate a reasonable settlement for satisfactory services rendered. No previous payment shall be considered a waiver of the Energy Commission's right to reimbursement.

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3. **SUBCONTRACTS**

Contractor shall enter into subcontracts with the following firms and/or individuals and shall manage the performance of the subcontractors.

(Insert Subcontractor Names) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

OR

No Subcontractors are named for this Agreement. If subcontractors are needed to perform any portion of this Agreement, the following criteria must be met and Contractor shall manage the performance of the subcontractors.

AND

- A. Nothing contained in this Agreement or otherwise, shall create any contractual relationship between the State and any subcontractors, and no subcontractors and no subcontract shall relieve Contractor of its responsibilities and obligations hereunder. Contractor agrees to be as fully responsible to the State for the acts and omissions of its subcontractors and/or persons either directly or indirectly employed by any of them as it is for the acts and omissions of persons directly employed by Contractor. Contractor's obligation to pay its subcontractors is an independent obligation from the State's obligation to make payments to Contractor. As a result, the State shall have no obligation to pay or to enforce the payment of any monies to any subcontractor.
- B. Contractor shall be responsible for establishing and maintaining contractual agreements with and the reimbursement of each of the subcontractors for work performed in accordance with the terms of this Agreement. Contractor shall be responsible for scheduling and assigning subcontractors to specific tasks in the manner described in this Agreement; coordinating subcontractor accessibility to Energy Commission staff, and submitting completed products to the CAM.
- C. Contractor shall not allow any subcontractor to assign any portion of a subcontract related to this Agreement to a third party or subsequent tier subcontractor (lower tier subcontractor) without first obtaining the written consent of the CAM and following the procedures below "Process for New Subcontractors".
- D. All subcontracts entered into pursuant to this Agreement shall be subject to examination and audit by the Bureau of State Audits for a period of three (3) years after final payment under the Agreement.
- E. Upon request by the CAM or CAO, Contractor shall provide copies of all contractual agreements with subcontractors and lower tier subcontractors.
- F. Contractors who are subcontracting with University of California may use the terms and conditions negotiated by the Department of General Services with University of California for their subcontracts. Contractors who are subcontracting with the Department of Energy's (DOE) Lawrence Livermore National Laboratory, Lawrence Berkeley National Laboratory, and the Sandia National Laboratories may use the terms and conditions negotiated with the Department of General



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Services. Contractors who are subcontracting with all other DOE laboratories may use the terms and conditions negotiated by the Energy Commission with DOE for their subcontracts.

- G. Upon the termination of any subcontract or lower tier subcontract, Contractor shall notify the CAM and CAO immediately in writing.
- H. In addition to any other flow-down provisions required by this Agreement, all subcontracts shall contain the following: 1) the audit rights and non-discrimination provision stated in the General Terms and Conditions (Exhibit C) and in D above; 2) further assignments shall not be made to any lower tier subcontractor without written consent of the CAM; and 3) the confidentiality provisions in the Reports paragraph of this Agreement.
- I. **Process for New Subcontractors**  
The Energy Commission reserves the right to replace a subcontractor, request additional subcontractors, and approve additional subcontractors requested by Contractor. A replaced subcontractor and an added subcontractor are both defined as a "new" subcontractor. Such changes shall be subject to the following conditions:
  - 1) The new subcontractor shall be selected using either: (a) A competitive bid process with written evaluation criteria by obtaining three or more bids and advertising the work to a suitable pool of subcontractors including without limitation: California Contracts Register, Contractor's mailing lists; mass media; professional papers or journals; posting on websites; and telephone or email solicitations; or (b) Non-competitive bid (sole source) process with a specific subcontractor.
  - 2) Contractor may also need to comply with Disabled Veteran Business Enterprise requirements for the proposed subcontractor.
  - 3) When a new subcontractor is proposed the CAM shall complete and submit to the CAO a "Subcontractor Addition" form. The proposed subcontract can be executed only after the CAO approves the Subcontractor Addition form. This form identifies the new subcontractor and bidding method used (competitive or non-competitive), the tasks the new subcontractor will be performing and the following shall be attached: resumes and completed Energy Commission budget forms.
  - 4) **Labor Rates & Classifications:** Personnel of new subcontractors must fit within a classification and be equal to or less than a rate already listed in the Agreement budget and the rate cannot exceed the subcontractor's actual rate. Adding classifications and/or higher rates for the new subcontractor other than ones currently listed in the Agreement requires a formal amendment.
  - 5) **Other Direct Operating Expenses:** The new subcontractor may charge other direct operating expenses (such as material or equipment) as already identified in the Agreement budget. No new types of operating expenses are allowed to be charged by the new subcontractor. Adding new types of

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operating expenses for the new subcontractor requires a formal amendment.

4. **DISABLED VETERAN BUSINESS ENTERPRISE (DVBE) REQUIREMENTS**

A. Reporting

If Contractor made a commitment to achieve DVBE participation for this Agreement, then Contractor must within 60 days of receiving final payment under this Agreement, certify in a report to the CAO: (1) the total amount the Contractor received under this Agreement; (2) the name and address of the DVBE(s) that participated in the performance of the Agreement; (3) the amount each DVBE received from the Contractor; (4) that all payments under the Agreement have been made to the DVBE(s); and (5) the actual percentage of DVBE participation that was achieved. A person or entity that knowingly provides false information shall be subject to a civil penalty for each violation. Military & Veterans Code section 999.5(d).

B. Substitution of DVBE

Contractor shall use each DVBE identified in its Statement of Qualifications or listed in this Agreement. Contractor understands and agrees that if DVBEs were identified in its proposal or listed in this Agreement, award of this Agreement is based in part on its commitment to use the DVBE subcontractor(s). If Contractor believes an identified DVBE must be replaced or substituted, Contractor shall inform CAM and CAO in writing of the reason for the DVBE replacement. A DVBE subcontractor may only be replaced by another DVBE subcontractor and must be approved by the Department of General Services. Military and Veterans Code section 999.5 (e). Contractor shall complete revised DVBE certification forms (provided by the CAO) identifying the new DVBE.

C. Amendment

This Agreement shall be amended if: a DVBE must be substituted and DGS has given approval; or there are changes to the scope of work that impact the DVBE subcontractor(s) identified in the Statement of Qualifications or listed in this Agreement.

D. Grounds for Termination; Damages; Penalties

Failure of Contractor to seek substitution and adhere to the DVBE participation level identified in the proposal or listed in this Agreement may be cause for: termination of this Agreement, recovery of damages under rights and remedies due to the State; and penalties as outlined in Military and Veterans Code section 999.9 and Public Contract Code section 10115.10.

E. DVBE Name for this Agreement: Insert DVBE name

5. **PROCESS FOR OFFERING WORK**

If the Energy Commission or Contractor requires the replacement of a person listed in the Agreement to provide a particular service, or requires that a new person is added, the Contractor shall:

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- 1) First offer the work to qualified persons already listed in this Agreement (either an employee of Contractor or a subcontractor).
- 2) If there is no available qualified person listed in this Agreement who can perform the work, then Contractor shall provide documentation from all the persons who were offered and declined the work to the CAM. Then, Contractor may request to add a new person to the Agreement in accordance with Exhibit B, Rates & Classifications: Changes in Contractor Personnel or Subcontractor Personnel. A person added to the Agreement is thereafter treated as a person listed in this Agreement and can be offered future work without first offering it to originally listed people.
- 3) If the person to be replaced or substituted was identified in the Agreement as a Disabled Veteran Business Enterprise (DVBE) firm, refer to the DVBE provision above for changes to DVBEs.
- 4) If the person added is a new subcontractor, Contractor shall use the process outlined in the Subcontracts provision, Process for New Subcontractors.

**6. PERFORMANCE EVALUATION**

The Energy Commission shall, upon completion of this Agreement, prepare a performance evaluation of the Contractor. Upon filing an unsatisfactory evaluation with the Department of General Services, Office of Legal Services (DGS) the Energy Commission shall notify and send a copy of the evaluation to the Contractor within 15 days. The Contractor shall have 30 days to prepare and send statements to the Energy Commission and the DGS defending his or her performance. The Contractor's statement shall be filed with the evaluation in the Energy Commission's Contract file and with DGS for a period of 36 months and shall not be a public record.

**7. REPORTS**

- A. **Progress and Final Reports:** Contractor shall prepare progress reports summarizing all activities conducted by Contractor to date on a schedule as provided in Exhibit A. At the conclusion of this Agreement, Contractor shall prepare a comprehensive Final Report, on a schedule as provided in Exhibit A.
- B. **Title:** Contractor's name shall only appear on the cover and title page of reports as follows:

California Energy Commission  
Project Title  
Contractor Number  
By (Contractor)
- C. **Ownership:** Each report shall become the property of the Energy Commission.
- D. **Non-disclosure:** Contractor will not disclose data or disseminate the contents of the final or any progress report without written permission of the CAM, except as provided in F, below. Permission to disclose information on one occasion or at public hearings held by the Energy Commission relating to the same shall not authorize Contractor to further disclose and disseminate the information on any other occasion. Contractor will not comment publicly to the press or any other media regarding its report, or Commission's actions on the same, except to Commission staff, Contractor's own personnel involved in the performance of this Agreement, or at a public hearing, or in response to questions from a legislative

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committee. Notwithstanding the foregoing, in the event any public statement is made by the Energy Commission or any other party, based on information received from the Energy Commission as to the role of Contractor or the content of any preliminary or final report, Contractor may, if it believes the statement to be incorrect, state publicly what it believes is correct.

- E. **Confidentiality:** No record which has been designated as confidential, or is the subject of a pending application of confidentiality, shall be disclosed by the Contractor, Contractor's employees or any tier of subcontractors, except as provided in 20 California Code of Regulations, Sections 2506 and 2507, unless disclosure is ordered by a court of competent jurisdiction (20 California Code of Regulations, Sections 2501, et seq.). At the election of the CAM, Contractor, Contractor's employees and any subcontractor shall execute a "Confidentiality Agreement," supplied by the CAM or CAO. Each subcontract shall contain provisions similar to the foregoing related to the confidentiality and nondisclosure of data.
- F. **Disclosure:** Ninety days after any document submitted by the contractor is deemed by the CAM to be a part of the public records of the State, Contractor may, if it wishes to do so at its own expense, publish or utilize a report or written document but shall include the following legend:

**"LEGAL NOTICE"**

**"This report was prepared as a result of work sponsored by the California Energy Commission. It does not necessarily represent the views of the Energy Commission, its employees, or the State of California. The Energy Commission, the State of California, its employees, contractors, and subcontractors make no warranty, express or implied, and assume no legal liability for the information in this report; nor does any party represent that the use of this information will not infringe upon privately owned rights."**

**8. CONTRACT DATA, OWNERSHIP RIGHTS**

- A. "Data" as used in this Agreement means recorded information, regardless of form or characteristic, of a scientific or technical nature. It may, for example, document research or experimental, developmental or engineering work, or be usable or be used to define a design or process, or to support a premise or conclusion asserted in any deliverable document required by this Agreement. The data may be graphic or pictorial delineations in media, such as drawings or photographs, data or information, etc. It may be in machine form, such as punched cards, magnetic tape or computer printouts, or may be retained in computer memory.
- B. "Deliverable data" is that data which, under the terms of this Agreement, is required to be delivered to the Energy Commission and shall belong to the Energy Commission.
- C. "Proprietary data" is such data as the Contractor has identified in a satisfactory manner as being under Contractor's control prior to commencement of performance of this Agreement, and which Contractor has reasonably demonstrated as being of a proprietary nature either by reason of copyright, patent or trade secret doctrines in full force and effect at the time when

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performance of this Agreement is commenced. The title to "proprietary data" shall remain with the Contractor throughout the term of this Agreement and thereafter. The extent of the Energy Commission access to, and the testimony available regarding, the proprietary data shall be limited to that reasonably necessary to demonstrate, in a scientific manner to the satisfaction of scientific persons, the validity of any premise, postulate or conclusion referred to or expressed in any deliverable for this Agreement.

- D. "Generated data" is that data, which a Contractor has collected, collated, recorded, deduced, read out or postulated for utilization in the performance of this Agreement. Any electronic data processing program, model or software system developed or substantially modified by the Contractor in the performance of this Agreement at the Energy Commission's expense, together with complete documentation thereof, shall be treated in the same manner as "generated data." "Generated data" shall be the property of the Energy Commission, unless and only to the extent that it is specifically provided otherwise in this Agreement.
- E. As to "generated data" which is reserved to Contractor by the express terms hereof, and as to any pre-existing or "proprietary data" which has been utilized to support any premise, postulate or conclusion referred to or expressed in any deliverable hereunder, Contractor shall preserve the same in a form which may be introduced as evidence in a court of law at Contractor's own expense for a period of not less than three years after receipt by the Energy Commission of the Final Report herein.
- F. Before the expiration of the three years, and before changing the form of or destroying any data, Contractor shall notify the Energy Commission of any contemplated action and the Energy Commission may, within thirty (30) days after notification, determine whether it desires the data to be preserved. If the Energy Commission so elects, the expense of further preserving data shall be paid for by the Energy Commission. Contractor agrees that the Energy Commission may at its own expense, have reasonable access to data throughout the time during which data is preserved. Contractor agrees to use its best efforts to furnish competent witnesses or to identify competent witnesses to testify in any court of law regarding data.

9. **PUBLIC HEARINGS**

If public hearings on the scope of work are held during the period of the Agreement, Contractor will make available to testify the personnel assigned to this Agreement. The Project Owner will reimburse Contractor for compensation and travel of the personnel at the Agreement rates for the testimony which the Energy Commission requests.

10. **DISPUTES**

In the event of an Agreement dispute or grievance between Contractor and the Energy Commission, both parties may follow the procedure detailed below. Contractor shall continue with the responsibilities under this Agreement during any dispute.

A. **First Level Dispute Resolution**

The Contractor shall first discuss the problem informally with the CAM. If the problem cannot be resolved at this stage, the Contractor must direct the

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grievance together with any evidence, in writing, to the Commission Agreement Officer. The grievance must state the issues in the dispute, the legal authority or other basis for the Contractor's position and the remedy sought. The Commission Agreement Officer and the Program Office Manager must make a determination on the problem within ten (10) working days after receipt of the written communication from the Contractor. The Commission Agreement Officer shall respond in writing to the Contractor, indicating a decision and explanation for the decision. Should the Contractor disagree with the Commission Agreement Officer decision, the Contractor may appeal to the second level.

**B. Second Level Dispute Resolution**

The Contractor must prepare a letter indicating why the Commission Agreement Officer's decision is unacceptable, attaching to it the Contractor's original statement of the dispute with supporting documents, along with a copy of the Commission Agreement Officer's response. This letter shall be sent to the Energy Commission's Executive Director within ten (10) working days from receipt of the Commission Agreement Officer's decision. The Executive Director or designee shall meet with the Contractor to review the issues raised. A written decision signed by the Executive Director or designee shall be returned to the Contractor within twenty (20) working days of receipt of the Contractor's letter. The Executive Director may inform the Energy Commission of the decision at an Energy Commission business meeting. Should the Contractor disagree with the Executive Director's decision, the Contractor may appeal to the Energy Commission at a regularly scheduled business meeting. Contractor will be provided with the current procedures for placing the appeal on an Energy Commission Business Meeting Agenda.

**11. TERMINATION**

The parties agree that because the Energy Commission is a state entity it is necessary for the Energy Commission to be able to terminate, at once, upon the default of Contractors and to proceed with the work required under the Agreement in any manner the Energy Commission deems proper. Contractor specifically acknowledges that the unilateral termination of the Agreement by the Energy Commission under the terms set forth below is an essential term of the Agreement, without which the Energy Commission would not enter into the Agreement. Contractor further agrees that upon any of the events triggering the unilateral termination the Agreement by the Energy Commission, the Energy Commission has the sole right to terminate the Agreement, and it would constitute bad faith of the Contractor to interfere with the immediate termination of the Agreement by the Energy Commission.

This Agreement may be terminated for any reason set forth below.

**A. With Cause**

In the event of any breach by the Contractor of the conditions set forth in this Agreement, the Energy Commission may, without prejudice to any of its legal remedies, terminate this Agreement for cause upon five (5) days written notice to the Contractor. In such event, the Energy Commission shall pay Contractor only the reasonable value of the services theretofore rendered by Contractor, as may be agreed upon by the parties or determined by a court of law, but not in excess of the Agreement maximum payable. "Cause" includes without limitation:

**ATTACHMENT 6**  
**Standard Agreement Example**

- 1) Failure to perform or breach of any of the terms or covenants at the time and in the manner provided in this Agreement; or
- 2) Contractor is not able to pay its debts as they become due and/or Contractor is in default of an obligation that impacts his ability to perform under this Agreement; or
- 3) It is determined after notice and hearing by the Energy Commission or the Executive Director that gratuities were offered or given by the Contractor or any agent or representative of the Contractor, to any officer or employee of the Energy Commission, with a view toward securing an Agreement or securing favorable treatment with respect to awarding or amending or making a determination with respect to performance of the Agreement; or
- 4) Significant change in Commission policy such that the work or product being funded would not be supported by the Energy Commission; or
- 5) Reorganization to a business entity unsatisfactory to the Energy Commission; or
- 6) The retention or hiring of subcontractors, or the replacement or addition of personnel that fail to perform to the standards and requirements of this Agreement.

**B. Without Cause**

The Energy Commission may, at its option, terminate this Agreement without cause in whole or in part, upon giving thirty (30) days advance notice in writing to the Contractor. In such event, the Contractor agrees to use all reasonable efforts to mitigate the Contractor's expenses and obligations hereunder. Also, in such event, the Energy Commission shall pay the Contractor for all satisfactory services rendered and expenses incurred within 30 days after notice of termination which could not by reasonable efforts of the Contractor have been avoided, but not in excess of the maximum payable under this Agreement.

**12. WAIVER**

No waiver of any breach of this Agreement shall be held to be a waiver of any other or subsequent breach. All remedies afforded in this Agreement shall be taken and construed as cumulative, that is, in addition to every other remedy provided therein or by law. The failure of the Energy Commission to enforce at any time any of the provisions of this Agreement, or to require at any time performance by Contractor of any of the provisions, shall in no way be construed to be a waiver of those provisions, nor in any way affect the validity of this Agreement or any part of it or the right of the Energy Commission to thereafter enforce each and every such provision.

**13. CAPTIONS**

The clause headings appearing in this Agreement have been inserted for the purpose of convenience and ready reference and do not define, limit, or extend the scope or intent of the clauses.

14. **PRIOR DEALINGS, CUSTOM OR TRADE USAGE**

In no event shall any prior course of dealing, custom or trade usage modify, alter, or supplement any of these terms.

15. **NOTICE**

Legal notice must be given using any of the following delivery methods: U.S. Mail, overnight mail, or personal delivery, providing evidence of receipt to the person identified in Exhibit F of this Agreement for legal notices. Delivery by fax or e-mail is not considered legal notice for the purpose of this clause. This clause is not intended to apply to normal, daily communication between the parties related to progress of the work. This clause applies to situations where notice is required to be given by this Agreement or the parties are asserting their legal rights and remedies.

Notice shall be effective when received, unless a legal holiday for the State commences on the date of the attempted delivery. In which case, the effective date shall be postponed until the next business day.

16. **STOP WORK**

The CAO may, at any time, by written notice to Contractor, require Contractor to stop all or any part of the work tasks in this Agreement. Stop Work Orders may be issued for reasons such as a project exceeding budget, standard of performance, out of scope work, delay in project schedule, misrepresentations and the like.

- A. Compliance. Upon receipt of such stop work order, Contractor shall immediately take all necessary steps to comply therewith and to minimize the incurrence of costs allocable to work stopped.
- B. Equitable Adjustment. An equitable adjustment shall be made by Commission based upon a written request by Contractor for an equitable adjustment. Such adjustment request must be made by Contractor within thirty (30) days from the date of receipt of the stop work notice.
- C. Revoking a Stop Work Order. Contractor shall resume the stopped work only upon receipt of written instructions from the CAO canceling the stop work order.

17. **INTERPRETATION OF TERMS**

This Agreement shall be conducted in accordance with the terms and conditions of the solicitation, if applicable. The Contractor's Statement of Qualifications is not attached, but is expressly incorporated by reference into this Agreement. In the event of conflict or inconsistency between the terms of this Agreement and the solicitation or proposal, this Agreement shall be considered controlling.

18. **AMENDMENTS**

This Agreement may be amended through a formal amendment process to make changes, pursuant to 20 California Code of Regulations section 2566, including without limitation;



**ATTACHMENT 6**  
**Standard Agreement Example**

- Extending the Agreement end date,
- Modifying tasks,
- Adding or modifying terms and conditions.

**19. DISCRIMINATION and HARASSMENT TRAINING**

All employees of Contractor and any subcontractor who provide service under this Agreement and maintain work space at the Energy Commission shall take annual training on the prevention of discrimination and harassment. The Energy Commission shall provide the online training course at no charge to Contractor or subcontractors. However, Contractor and subcontractors shall not invoice for the time spent taking the course. Contractor shall ensure that all employees of Contractor and any subcontractor who provide service under this Agreement and represent the Energy Commission in public hearings and workshops, but do not maintain office space at the Energy Commission, receive training on prevention of discrimination and harassment.

**EXHIBIT E**

**Additional Provisions**

**1. CONFIDENTIALITY**

**A. Information Considered Confidential**

If applicable, all Contractor information considered confidential at the commencement of this Agreement is designated in the Attachment to this Exhibit.

**B. Confidential Deliverables: Labeling and Submitting Confidential Information**

Prior to the commencement of this Agreement, if applicable, the parties have identified in the Attachment to this Exhibit, specific Confidential Information to be provided as a deliverable. All such confidential deliverables shall be marked, by the Contractor, as "Confidential" on each page of the document containing the Confidential Information and presented in a sealed package to the Commission Agreement Officer. (Non-confidential deliverables are submitted to the Accounting Office.) All Confidential Information will be contained in the "confidential" volume: no Confidential Information will be in the "public" volume.

**C. Submittal of Unanticipated Confidential Information as a Deliverable**

The Contractor and the Energy Commission agree that during this Agreement, it is possible that the Contractor may develop additional data or information not originally anticipated as a confidential deliverable. In this case, Contractor shall follow the procedures for a request for designation of Confidential Information specified in 20 CCR 2505. The Energy Commission's Executive Director makes the determination of confidentiality. Such subsequent determinations may be added to the list of confidential deliverables in the Attachment to this Exhibit.

**D. *Disclosure of Confidential Information***

Disclosure of Confidential Information by the Energy Commission may only be made pursuant to 20 CCR 2506 and 2507. All confidential data, records or deliverables that are legally disclosed by the Contractor or any other entity become public records and are no longer subject to the above confidentiality designation.

**3. RIGHTS OF PARTIES IN COPYRIGHTS, PHYSICAL WORKS OF ART AND FINE ART**

The Contractor, by signing this Agreement, expressly grants to the Energy Commission for all copyrightable material, work of art and original work of authorship first produced, composed or authored in the performance of this Agreement a royalty-free, paid-up, non-exclusive, irrevocable, nontransferable, worldwide license to produce, translate, publish, use, dispose of, reproduce, prepare derivative works based on, distribute copies of, publicly perform, or publicly display a work of art or fine art, and to authorize others to produce, translate, publish, use, dispose of, reproduce, prepare derivative works based on, distribute copies of, publicly perform, or publicly display a work of art or fine art.

ATTACHMENT 6  
Standard Agreement Example

Contractor, by signing this Agreement, expressly conveys to the Energy Commission all ownership of the physical works of art and fine art produced under this Agreement. Contractor agrees it does not reserve any rights to the physical works of art and fine art produced under this Agreement.

Contractor shall obtain these same rights for the Energy Commission from all subcontractors and others who produce copyrightable material, works of art, or works of fine art under this Agreement. Contractor shall incorporate these paragraphs, modified appropriately, into its agreements with subcontractors. No subcontract shall be entered into without these rights being assured to the Energy Commission from the subcontractor.

7. **INSURANCE REQUIREMENTS**

A. **Commercial General Liability**

Contractor shall maintain general liability on an occurrence form with limits not less than \$1,000,000 per occurrence and \$2,000,000 aggregate for bodily injury and property damage liability. The policy shall include coverage for liabilities arising out of premises, operations, independent contractors, products, completed operations, personal and advertising injury, and liability assumed under an insured Agreement. This insurance shall apply separately to each insured against which claim is made, or suit is brought subject to the Contractor's limit of liability. **The policy must name The State of California, its officers, agents, and employees as additional insured, but only with respect to work performed under the contract.**

B. **Automobile Liability**

Contractor shall maintain motor vehicle liability with limits not less than \$1,000,000 combined single limit per accident. Such insurance shall cover liability arising out of a motor vehicle including owned, hired, and non-owned motor vehicles. **The policy must name The State of California, its officers, agents, and employees as additional insured, but only with respect to work performed under the contract.**

C. **Workers' Compensation and Employer's Liability**

Contractor shall maintain statutory worker's compensation and employer's liability coverage for all its employees who will be engaged in the performance of the Contract. In addition, employer's liability limits of \$1,000,000 are required. If applicable, contractor shall provide coverage for all its employees for any injuries or claims under the U.S. Longshoremen's and Harbor Workers' Compensation Act, the Jones Act or under laws, regulations, or statutes applicable to maritime employees. By signing this contract, Contractor acknowledges compliance with these regulations. **A Waiver of Subrogation or Right to Recover endorsement in favor of the State of California must be attached to certificate.**

D. **Professional Liability (If applicable)**

Contractor shall maintain Professional Liability at \$1,000,000 per occurrence and \$2,000,000 aggregate covering any damages caused by a negligent error, act, or omission. The policy's retroactive date must be displayed on the certificate of insurance and must be before the date this Agreement was executed or before the beginning of this Agreement work. The Contractor is responsible to maintain continuous coverage for up to three years after the notice of completion.

**8. GENERAL PROVISIONS APPLYING TO ALL INSURANCE POLICIES**

- A. Coverage Term**  
Coverage needs to be in force for the complete term of the contract. If insurance expires during the term of the contract, a new certificate must be received by the State at least ten (10) days prior to the expiration of this insurance. Any new insurance must still comply with the original terms of the contract.
- B. Policy Cancellation or Termination & Notice of Non-Renewal**  
Contractor and/or Permittee is responsible to notify the State within five business days before the effective date of any cancellation, non-renewal, or material change that affects required insurance coverage. In the event Contractor and/or Permittee fails to keep in effect at all times the specified insurance coverage, the State may, in addition to any other remedies it may have, terminate this Contract upon the occurrence of such event, subject to the provisions of this Contract.
- C. Deductible**  
Contractor and/or Permittee is responsible for any deductible or self-insured retention contained within their insurance program.
- D. Primary Clause**  
Any required insurance contained in this contract shall be primary, and not excess or contributory, to any other insurance carried by the State.
- E. Insurance Carrier Required Rating**  
All insurance companies must carry a rating acceptable to the Office of Risk and Insurance Management. If the Contractor and/or Permittee is self-insured for a portion or all of its insurance, review of financial information including a letter of credit may be required.
- F. Endorsements**  
Any required endorsements requested by the State must be physically attached to all requested certificates of insurance and not substituted by referring to such coverage on the certificate of insurance.
- G. Inadequate Insurance**  
Inadequate or lack of insurance does not negate the contractor and/or Permittee's obligations under the contract.
- H. Satisfying an SIR**  
All insurance required by this contract must allow the State to pay and/or act as the contractor's agent in satisfying any self-insured retention (SIR). The choice to pay and/or act as the contractor's agent in satisfying any SIR is at the State's discretion.

**ATTACHMENT 6**  
**Standard Agreement Example**

**I. Available Coverages/Limits**

All coverage and limits available to the contractor shall also be available and applicable to the State.

**J. Subcontractors**

In the case of Contractor and/or Permittee's utilization of subcontractors to complete the contracted scope of work, contractor and/or Permittee shall include all subcontractors as insured's under Contractor and/or Permittee's insurance or supply evidence of insurance to The State equal to policies, coverages and limits required of Contractor and/or Permittee.

**EXHIBIT F**

**Conflict of Interest Provisions**

1. **NOTICE OF POTENTIAL CONFLICTS**

The Contractor represents that it is familiar with California conflict of interest laws, and agrees to comply with those laws in performing this Contract (e.g., Gov. Code § 81000 et seq., and Gov. Code § 1090 et seq.). The Contractor certifies that, as of the effective date of this Agreement, it was unaware of any facts constituting a conflict of interest. The Contractor shall avoid all conflicts of interest in performing this Contract.

Contractor agrees to continuously review new and upcoming projects in which members of the Contractor team may be involved for potential conflicts of interest. Contractor shall inform the CAM as soon as a question arises about whether a potential conflict may exist. The CAM and the Commission's Chief Counsel's Office shall determine what constitutes a potential conflict of interest. Without limiting any of its other available rights, remedies, or actions, the Energy Commission reserves the right to redirect work and funding if the Commission's Chief Counsel's Office determines that there is a potential conflict of interest.

2. **APPEARANCES OF CONFLICTS OF INTEREST**

Contractor acknowledges that in governmental contracting even the appearance of a conflict of interest can be harmful to the interest of the State. Thus, Contractor agrees to refrain from any practices, activities, or relationships that appear to conflict with Contractor's obligations under this Contract, unless Contractor receives prior written approval of the Commission. In the event Contractor is uncertain whether the appearance of a conflict of interest may exist, Contractor shall submit to the CAM a written description of the relevant details.

3. **RULES REGARDING CURRENT AND FORMER ENERGY COMMISSION EMPLOYEES**

Please see the CONFLICT OF INTEREST provision in the Contractor Certification Clauses (CCC 307) incorporated by reference into these terms and conditions from the Department of General Services' required terms (GTC 610), which are also incorporated by reference in Exhibit [X].

4. **CERTIFICATION REGARDING CONFLICTS OF INTEREST**

The Contractor shall submit the Certification Regarding Conflicts of Interest (Appendix [X]) for each employee considered to be a "consultant" (see below) at multiple points: (1) when the Firm submits a Statement of Qualifications to the Energy Commission; (2) within 30 business days from the date of the contract start date; and (3) every twelve months until the contract end date. Please also see Appendix [X] for additional instructions.

5. **FILING STATEMENT OF ECONOMIC INTEREST (FORM 700)**

The California Political Reform Act requires individuals holding positions designated within an agency's conflict of interest code to file a Statement of Economic Interests (Form 700) at certain times. The Energy Commission's conflict of interest code

ATTACHMENT 6  
Standard Agreement Example

designates “consultants” among the positions that must file a Form 700 (see Title 20 California Code of Regulations Sections 2401 and 2402).

The Energy Commission considers all of the Contractor’s and subcontractors’ employees working on (providing labor) on Tasks [X-X] **[CAM to complete - these are tasks where employees will be participating in a governmental decision, as opposed to performing strictly administrative tasks]** to be “consultants” subject to the requirements and restrictions of the Political Reform Act and requires them to file an original form 700 with the Energy Commission. (See Government Code Sections 82019 and 87302). Employees working on strictly administrative tasks, such as Tasks [X-X] **[CAM to complete – these are strictly administrative tasks]** do not have to fill out Form 700 unless directed to do so by the Energy Commission. The Energy Commission reserves the right to have anyone working under this Contract to fill out a Form 700. Each employee and subcontractor determined to be a consultant under the Political Reform Act shall be subject to the same disclosure category or categories applicable to the Commission staff who perform the same nature and scope of work as the consultant. The Energy Commission will determine the appropriate disclosure category for each consultant through the Agency Report of Consultants (Form 805) (see section below for additional information). The disclosure categories can be found at 20 California Code of Regulations Section 2402.

Each of the Contractor’s and subcontractors’ employees performing work (providing labor) under the Agreement on Tasks [X-X], or as directed by the Energy Commission, must file a Form 700 within the times required under the Political Reform Act, which include the following:

- Assuming Office Statement. Must be filed within 30 days of beginning work under the Contract. Beginning work means when the employee actually performs work under the Contract; it does not mean the start date of the Contract unless the employee starts work on the start date.
- Annual Statement. Must be filed annually, no later than April 1.
- Leaving Office Statement. Must be filed within 30 days of ceasing to perform work under the Contract (e.g., removed as a subcontractor, completion of assigned tasks) or within 30 days after the Agreement ends.

Additionally, consultants are subject to training requirements pursuant to Government Code Section 11146 et. seq. The training, developed by the Attorney General of California and the Fair Political Practices Commission, is offered online and is mandatory for all consultants.

**Every individual that qualifies as a “consultant” under the Political Reform Act has an ongoing duty to avoid conflicts of interest and is personally liable for penalties. Please note that not filing the Form 700 or not meeting the training requirements when required can result in automatic daily fines and other consequences.**

File all original Form 700’s in person at, or by mail to, the following address (e-mails and faxes are not acceptable):

Energy Commission Filing Officer – Form 700 Filing  
Selection, Training, & Equal Employment Opportunity Office  
1516 9<sup>th</sup> St., MS 52  
Sacramento, CA 95814

6. **AGENCY REPORT OF CONSULTANTS (FORM 805)**

Within 30 days of the Contract start date, Contractor must provide the CAM with a Fair Political Practices Commission Form 805, Agency Report of Consultant. Form 805 is available at: <http://www.fppc.ca.gov/content/dam/fppc/NS-Documents/TAD/Agency%20Reports/805.pdf>. The Contractor shall complete Section 2, Firm Information. Under Section 3, Consultant Information, the Contractor shall complete the Consultant Name section for every individual (including names of subcontractors' employees) performing working under Tasks ~~[X-X]~~**[same as above - these are the tasks that consultants perform]**, along with the Assuming/Start Date for each individual. A supplemental Form 805 is required within 30 days whenever a new consultant begins work under the contract. If a consultant listed on a Form 805 ceases to perform work under the Contract (e.g., completion of assigned tasks), the Contractor shall notify the CAM of the change within 30 days.

7. **SEPARATION OF DUTIES**

For the duration of this Contract, Contractor and all subcontractors shall not enter into an agreement or working relationship with anyone, and shall not negotiate or make arrangements concerning employment with anyone, who has a pending Application with the Energy Commission, is planning to file an Application, or is otherwise working on an Application that has been filed or is expected to be filed at the Energy Commission, other than as directed by the Energy Commission for DCBO services.

All employees (including employees of both Contractor and subcontractors) identified as consultants are subject to restrictions of the Political Reform Act on post-governmental activity. Contractor shall ensure that all employees are aware of these restrictions. Guidance published by the Fair Political Practices Commission on these restrictions can be found at: <http://www.fppc.ca.gov/content/dam/fppc/NS-Documents/TAD/Public Officials and Employees/Leaving State Employment.pdf>.

8. **ENFORCEMENT**

Contractor shall make its employees aware of these provisions and shall enforce them. Contractor shall ensure that these provisions are included in all subcontracts, and shall enforce them.

9. **NOTIFICATION OF POTENTIAL PROBLEMS**

Contractor shall immediately inform the CAM of any potential problems in compliance with these provisions.



ATTACHMENT 6  
Standard Agreement Example

**EXHIBIT G**  
**Agreement Contacts**

|                                                                                                                                                                                                                                                                                                  |                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Commission Agreement Manager:</b><br><br>(Name), MS-<br>California Energy Commission<br>1516 Ninth Street<br>Sacramento, CA 95814<br>Phone 916-<br>Fax # 916-<br>e-mail: <u>          @energy.ca.gov</u>                                                                                      | <b>Contractor Project Manager:</b><br><br>(Name)<br>(Contractor Name)<br>Address<br><br>Phone:<br>Fax:<br>e-mail:                |
| <b>Commission Agreement Officer:</b><br><br>(Name), MS-18<br>California Energy Commission<br>1516 Ninth Street<br>Sacramento, CA 95814<br>Phone: 916- 654- XXXX<br>Fax: 916 654-4423<br>e-mail: <u>          @energy.ca.gov</u><br><br>Deliver confidential deliverables to this location only.  | <b>Contractor Contract Administrator/Officer:</b><br><br>(Name)<br>(Contractor Name)<br>Address<br><br>Phone:<br>Fax:<br>e-mail: |
| <b>Invoices, Progress Reports and Non-Confidential Deliverables to:</b><br><br>Accounting Office, MS-2<br>California Energy Commission<br>1516 Ninth Street<br>Sacramento, CA 95814<br>Phone: 916-<br>Fax: 916-<br>e-mail: <u>          @energy.ca.gov</u>                                       |                                                                                                                                  |
| <b>Commission Legal Notices:</b><br><br>Rachel L. Grant Kiley, Manager<br>Contracts, Grants, and Loans Office<br>California Energy Commission<br>1516 Ninth Street, MS-18<br>Sacramento, CA 95814<br>Phone: 916-654-4379<br>Fax: 916-654-4423<br>e-mail: <u>rachel.grant-kiley@energy.ca.gov</u> | (contractor legal person)                                                                                                        |

# California Energy Commission

## Attachment 6: Exhibit H

<Insert "On-Call" or "Project Name & AFC #">  
DELEGATE CHIEF BUILDING OFFICIAL (DCBO)

# BEST MANAGEMENT PRACTICES GUIDE (Draft)



CALIFORNIA  
ENERGY COMMISSION

Edmund G. Brown Jr., Governor

MAY 2016

# **CALIFORNIA ENERGY COMMISSION**

## **DISCLAIMER**

Staff members of the California Energy Commission prepared this report. As such, it does not necessarily represent the views of the Energy Commission, its employees, or the State of California. The Energy Commission, the State of California, its employees, contractors and subcontractors make no warrant, express or implied, and assume no legal liability for the information in this report; nor does any party represent that the uses of this information will not infringe upon privately owned rights. This report has not been approved or disapproved by the Energy Commission nor has the Commission passed upon the accuracy or adequacy of the information in this report.

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# DCBO - BEST PRACTICES MANUAL

## 1.0 Introduction

### 1.1 Background

The Warren-Alquist Act (Public Resources Code sections 25000 et. seq.) grants the California Energy Commission (Energy Commission) exclusive jurisdiction to review and approve Applications for Certification (AFCs) and Petitions to Amend (PTAs) for the construction, operation, modification and eventual closure of large thermal power plants (50 megawatts or greater). The Energy Commission utilizes the California Building Standards Code (CBSC) as its model building code, and the Energy Commission is responsible for interpretation and enforcement of the CBSC.

When the Energy Commission authorizes a power plant project owner to proceed with detailed design and construction, the Energy Commission must select a qualified third party firm to act on behalf of the Energy Commission as their Delegate Chief Building Official (DCBO). In this capacity, the selected DCBO performs their plan review and construction inspection duties<sup>1</sup> in accordance with the CBSC and the Energy Commission Decision for the facility. This document has been prepared to assist the DCBO in executing its duties for the Energy Commission.

This Guide provides additional Energy Commission expectations in the performance of the contract. The DCBO Contractor is expected to follow the Guide in performing the work, and failure to do so is considered a material breach of the Contract that may result in termination of the Contract by the Energy Commission without limiting the Energy Commission's rights or remedies. The Contractor may deviate from the Guide upon prior written approval by Compliance Project Manager (CPM). In the event of any conflict or inconsistency between the Guide and the Scope of Work, the Scope of Work shall control.

Within this document, the California Code of Regulations, Title 24, Parts 1 through 12 is referred herein as the CBSC. This may also include specific reference to the California Electric Code (CELC), California Plumbing Code (CPC), California Mechanical Code (CMC), and the California Fire Code (CFC) as needed for clarity. Other Laws, Ordinances, Regulations, and Standards (LORS) also apply to the design and construction of a typical power plant.

Within this document, the term developer refers to the collection of entities and individuals working as a team for the owner of a power plant project, certified by the Energy Commission, to design and construct an electrical power generating plant and related facilities<sup>2</sup> within California. This includes the owner, owner's engineer, and

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<sup>1</sup> Subsequent sections of this document define the typical DCBO tasks and duties.

<sup>2</sup> Cal. Code Regs. tit. 20, §1201(r)

owner's construction manager, the engineering firm of record, the construction contractor or contractors, and any other groups or individuals working as an agent of the owner.

## **1.2 Intent**

The intent of these best practices is to promote consistency within the Energy Commission's DCBO resource pool when performing construction document plan reviews and inspections pertaining to the construction of 50-megawatt and greater thermal power plants. This document illustrates the best practices and methods expected of all Energy Commission DCBO's.

## **1.3 Energy Commission's Third Party Beneficiary Clause**

Once selected, the DCBO is required to execute an agreement with the project owner that includes a third party beneficiary contractual clause that establishes the requirements of service for the project specific DCBO. This language also defines the authority of the Energy Commission and the duties it delegates to the DCBO. The project owner of a power plant project is required to compensate the DCBO for all work performed for the project on behalf of the Energy Commission as required by the conditions of certification (COCs) contained in the Energy Commission Decision.

The DCBO is obligated to perform their duties as a delegate of the Energy Commission, and no contract signed, agreement made, or other negotiated term with the project owner relieves the DCBO from the requirements found in the guidance. The DCBO must present suggested changes/clarifications to the Energy Commission's procedures outlined herein to the Energy Commission prior to implementation by the DCBO. Changes cannot be authorized by the project owner.

## **2.0 Role of the DCBO**

The role of the DCBO extends beyond the responsibilities of a typical building department's Chief Building Official. It is important to remember that the authority given to the DCBO is a delegated authority of the Energy Commission. The Energy Commission does not relinquish that authority and has the final decision authority on all matters relating to the design, construction, and licensing of a jurisdictional power plant in California. The Energy Commission has the authority to make final decisions relating to interpretations of the CBSC as may be necessary. As its delegate, the DCBO must abide by any interpretation of the CBSC made by the Energy Commission. In addition, all DCBO team members must be approved by Energy Commission staff including additions or replacement team members.

The following sections define the general roles and responsibilities of the DCBO in the performance of their duties delegated to them by the Energy Commission for a power plant project.

### **2.1 Conditions of Certification (COCs)**

The COCs define the various design and construction compliance tasks imposed on a power plant by the Energy Commission. These tasks may involve the performance of work not typically required by other jurisdictional agencies for other construction projects. The COCs are the compliance road map followed by a power plant project team; it defines how a project is to proceed to completion and subsequently to begin operation. The DCBO will assist the Energy Commission with the compliance oversight of these COCs to insure that they are completed and documented to the satisfaction of the Energy Commission. The DCBO works directly with an Energy Commission Compliance Project Manager (CPM), an Energy Commission employee of the Siting, Transmission and Environmental Protection (STEP) Division, to ensure the power plant project complies with all of the COCs identified in the Commission Decision for the project. No DCBO has the authority to alter or substitute any COCs.

The DCBO shall provide for a professional Safety Monitor on site to track compliance with Cal/OSHA regulations and periodically audit safety compliance during both demolition and construction activities, commissioning, and for the hand-over to operational status. The Safety Monitor shall be selected by and report directly to the DCBO. The Safety Monitor will be responsible for verifying that the project owner's Construction Safety Supervisor implements all appropriate Cal/OSHA and Commission safety requirements. The Safety Monitor shall conduct on-site safety inspections during demolition and construction at intervals necessary to fulfill those responsibilities. The Safety monitor shall have the authority to issue a stop work order for unsafe conditions found on the work site. The stop work order shall be in writing and given to the Construction Safety Supervisor with the necessary conditions to remedy the unsafe condition(s) before work can resume. The Safety Monitor will ensure that the corrective actions have been properly taken by the Construction Safety Supervisor before work can resume.



## **2.2 California Building Standards Code Compliance**

The primary role of the DCBO is the enforcement of the CBSC requirements. In this role, the DCBO performs two basic functions. The first function is the review and approval of the construction documents necessary for CBSC compliance. The second function is the observation and inspection of construction components to verify that the as-constructed facilities are consistent with the approved construction documents.

### ***A. Design and Construction Document Review and Approval***

A power plant project owner has the regulatory requirement to submit many documents during the course of the design and construction of a power plant. The following list should not be considered all-inclusive, but provides a guideline regarding the general nature of the required submittals. The COCs identify any special submittals required of the project owner for site, design, environmental, and other compliance aspects for the proposed power plant.

- Any documents defined by the COCs;
- Master drawing list;
- Master specification list;
- Project execution schedule;
- Monthly progress reports;
- Personnel assignment approvals (engineering, inspection, etc.);
- Storm water pollution prevention plans (SWPPP);
- Oil Spill Prevention, Control, and Countermeasures plans (SPCC – submitted directly to Environmental Protection Agency (EPA) – confirmation of transmittal to DCBO only when thresholds for requirements of 40 CFR Part 112 are met);
- Drawings and supporting calculations for temporary electrical, civil, mechanical, and structural facilities proposed during construction (temporary construction power, fire protection, tent warehouses, etc.);
- Hazardous Materials Management Plan (HMMP) per CFC Article 80, Section 8001.3.2;
- Civil drawings and supporting calculations (grading, paving, drainage plan and details, plot plans, etc.);
- Geotechnical investigations and reports;
- Site rainfall/firewater runoff and drainage calculations;

- Structural design (e.g. seismic and wind loading design methods to be employed, site class, importance category, occupancy category, design criteria, etc.) methodology;
- Structural calculations (loading, load combinations, computer modeling input and output reports, etc.);
- Structural drawings (reinforced concrete, rebar details, structural steel, connection details, pipe hangers, platforms, handrails and elevated walkways, stationary cranes, fire protection, component mounting and bracing, etc.);
- Structural coatings specifications (insulation, fire protection, etc.);
- Engineered shoring drawings where required;
- Electrical drawings (one-line, conduit and wiring schedules, termination, duct bank, lighting plan and illumination intensity plans, and miscellaneous details);
- Electrical area classification drawings;
- Electrical calculation (voltage drop, conductor sizing, conduit fills, ground grid sizing, short circuit calculations, etc.);
- Mechanical equipment plan and detail drawings (HVAC systems, fire water pumping/monitoring/sprinkling systems, etc.);
- Fire water main, monitor, sprinkler hydraulic calculations;
- Fire protection system alarm and control system design drawings and calculations;
- Process piping system plan and detail drawings (all submitted to the DCBO but only a sampling will be reviewed as outlined above for the process piping system design process verification – plan and details, piping and instrumentation diagrams, isometric details, etc.);
- High energy process piping systems pipe stress and flexibility analysis (provide a sampling as outlined above for the process piping system design process verification);
- Pressure vessel ASME code certification documentation;
- As-built drawings;
- Pipelines;
- Transmission lines;
- Non-compliance reports (NCR) and resolutions thereof; and
- Monthly status of NCR's will be included in the monthly report.

## ***B. Inspection of Constructed Facilities***

The inspection of construction by the DCBO is the primary means of assurance to the Energy Commission that construction is proceeding consistent with approved construction documents. The inspection of construction activities will be performed directly by DCBO personnel or by individuals (special inspectors) contracted by the project owner with direct reporting responsibilities to the project owner and DCBO.

The project owner shall have personnel, or contract with firms and/or individuals that are qualified and certified special inspectors (if not provided by the DCBO) who shall be responsible for the special inspections required by the CBSC, Chapter 17, and Section 1704 Special Inspections. The qualification of an inspector shall be demonstrated by attaining certifications appropriate to his/her review and inspection duties as demonstrated by certification with the American Society of Mechanical Engineers (ASME), National Fire Protection Association (NFPA), American Welding Society (AWS), Institute of Electrical and Electronics Engineers (IEEE) and/or any other nationally-recognized testing and certifications appropriate to the scope of his/her duties. The project owner should create and submit a special inspection plan that identifies these special inspectors and their responsibilities. The DCBO shall review and approve the qualifications of the special inspectors. The project owner shall obtain the approvals of any special inspector prior to commencement of any construction activities where special inspection is required. The special inspectors shall work under the direction of the project owner and DCBO and not the firm contracted to construct the power plant or any portion thereof. Special inspections include, but are not limited to the following types of construction and related quality control/quality assurance testing required by the building code:

- Soil compaction;
- Concrete placement and strength tests;
- Bolts installed in concrete;
- Special moment-resisting concrete frame construction;
- Reinforcing steel and pre-stressing steel tendon installation;
- Structural welding;
- Welding of reinforcing steel in concrete;
- High-strength bolting of structures;
- Structural masonry reinforcement placement and unit placement;
- Reinforced gypsum concrete construction;
- Insulating concrete fill placement;
- Spray-applied fire-resistive material placement;
- Piling, drilled piers and caissons driving and testing;
- Shotcrete placement and strength testing; and

- Special grading, excavation, and filling.

In addition to the CBSC required special inspections; the project owner shall perform and document the following additional designated special inspection tasks:

- Welding of ASME piping systems;
- Hydrostatic testing of ASME piping systems;
- Buried pipeline coating defect testing;
- Electrical breaker trip testing;
- Motor winding short circuit testing (high pot testing);
- Conductor insulation resistance/short circuit testing; and
- Fire protection system performance witness/performance testing.

Similar to CBSC §1704.2.5.2, special inspections of the prefabricated elements within the above systems are not required where the work is done on the premises of a registered and approved fabricator. Such "approval" must be based upon review of the fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices by an approved special inspection agency. Upon fabrication completion, the approved fabricator must submit a certificate of compliance to the DCBO stating that the work was performed in accordance with the approved construction document.

The special inspectors shall:

- Be a qualified person who shall demonstrate competence, to the satisfaction of the DCBO, if not directly employed by the DCBO, for inspection of the particular type of construction requiring special or continuous inspection;
- Observe the work assigned for conformance with the DCBO approved and stamped design drawings and specifications;
- Furnish inspection reports to the DCBO and the engineer of record. All discrepancies shall be brought to the immediate attention of the contractor for correction, then, if uncorrected, to the DCBO and the Engineer of Record for corrective action [2013 CBSC, Chapter 17, Section 1704.2.4, Report Requirements];
- Submit a final signed report to the engineer of record, and DCBO, stating whether the work requiring special inspection was, to the best of the inspector's knowledge, in conformance with the approved plans and specifications and the applicable provisions of the CBSC; and
- A certified welding inspector, certified by the American Welding Society (AWS), and/or American Society of Mechanical Engineers (ASME) as applicable, shall

inspect welding performed on-site requiring special inspection (including structural, piping, tanks and pressure vessels).

## **2.3 Industrial Code Compliance**

The design and construction of a typical power plant includes many different types of piping systems. These include potable water, reclaimed water, sanitary sewers, storm water, steam, natural gas, ammonia, water, geothermal fluids, and other chemicals. It is important for the DCBO to understand and differentiate between process piping and building/civil piping systems within the submitted plants and apply the appropriate codes to these systems. Generally, the California Building Codes (including the California Plumbing Code – CPC, and the California Mechanical Code – CMC) involve the DCBO more in the code compliance and Quality Assurance / Quality Control (QA/QC) process than the ASME Codes. The language of the ASME codes places no code compliance responsibility in the hands of the DCBO. These industry codes place the code compliance responsibility with the owner. However, the Energy Commission charges the DCBO with more involvement in the industry code plan review and inspection process than most process plant project owner's typically encounter. The DCBO should establish a process that fulfills the Energy Commission's COCs without adding excessively to the project's mechanical design and inspection efforts. This process should be more of a design and construction QA/QC audit.

A DCBO shall communicate any concerns regarding a project owner's design and QA/QC process and documentation to the CPM for issue resolution (see also Section 4.2 C).

## **2.4 Document Control and Tracking**

The DCBO must develop an internet-based document submittal system that acts as a portal for the project owner to submit construction documents for DCBO review. All power plant project document submittals will utilize a system in which the DCBO assigns a unique tracking number to all submittals. This submittal system will be username and password protected to restrict access to the project web site where the document tracking system resides.

## **2.5 Limits of Engineering Document Review**

The DCBO should be mindful that his job is to review plans for code compliance. The DCBO is responsible for making a diligent effort to insure the project owner's design is code compliant. As defined in CBSC Section 202 – DEFINITIONS, defines Enforcement as the *"diligent effort to secure compliance (with the CBSC), including review of plans and permit applications...."* Webster's dictionary defines diligent as a constant careful effort. These definitions do not include these words: guarantee, warranty, error-free, over-zealous, or exhaustive. The DCBO must be mindful to be diligent, but not over-zealous in his or her efforts.

The DCBO's job is not to engineer/design the power plant; it is not the responsibility of the DCBO to offer opinions based on the economics of a design, or personal design preferences. It is not the responsibility of the DCBO to become a special design subject matter expert.

"The design of a power plant often involves the incorporation of special machines and devices. It is not the Energy Commission's intent for the DCBO to judge the performance standards of any machines. The DCBO's focus is on the foundations and anchorages of these machines. It is not the responsibility of the DCBO to determine the loads the machines place on foundations and anchorages but rather to review the specifications used, and calculations performed, by the project owner's engineer for load distribution on such foundations and anchorages"

When code compliance issues arise, the DCBO may assist the project owner when asked by the project owner to do so. For example, the DCBO may suggest a method to solve a particular code compliance issue that would comply with the applicable code. The project owner has the flexibility to find other solutions; beyond those suggested by the DCBO provided, if those solutions are code compliant.

### **3.0 Laws Ordinances Regulations and Standards**

A power plant, properly designed and constructed will meet, or exceed, the appropriate LORS. These include, but are not limited to, the following:

- American National Standards Institute (ANSI);
- American Petroleum Institute (API);
- American Society of Civil Engineers (ASCE);
- American Society of Mechanical Engineers (ASME);
- American Society for Testing and Materials (ASTM);
- California Building Standards Code (CBSC);
- California Occupational Health, and Safety Administration (Cal/OSHA);
- Environmental Protection Agency (EPA);
- Institute of Electrical and Electronics Engineers (IEEE);
- National Fire Protection Association (NFPA);
- Occupational Safety Health Administration (OSHA); and
- Underwriters Laboratories (UL).

In many respects, a typical power plant is more process plant than building structure. The DCBO needs to understand this balance and not overly rely simply on the CBSC as the single guidance document for all aspects of compliance.

#### **3.1 California Building Standards Code (CBSC)**

The design and construction of all civil, structural, mechanical (except process piping), electrical, and fire prevention facilities are to comply with the CBSC. The Energy Commission utilizes the 2013 California Code of Regulations, Title 24, Parts 1 through 12, (herein referred to as the CBSC), as their model building code. This Title includes the following code parts and their commonly referenced names:

- Part 1 - California Building Standards Administrative Code;
- Part 2 - California Building Code (Volumes 1 and 2);
- Part 2.5 – California Residential Code;
- Part 3 - California Electrical Code;
- Part 4 - California Mechanical Code;
- Part 5 - California Plumbing Code;
- Part 6 - California Energy Code;
- Part 7 - no longer in use;
- Part 8 - California Historical Building Code;

- Part 9 - California Fire Code;
- Part 10 - California Existing Building Code (formally - California Code for Building Conservation);
- Part 11 - California Green Building Code; and
- Part 12 - California Reference Standards Code.

Included by reference in these CBSC Parts are other applicable engineering LORS. Defined within a project's COCs will be project specific LORS required for Energy Commission compliance.

### **3.2 Primary Industry Codes – Process Piping Systems**

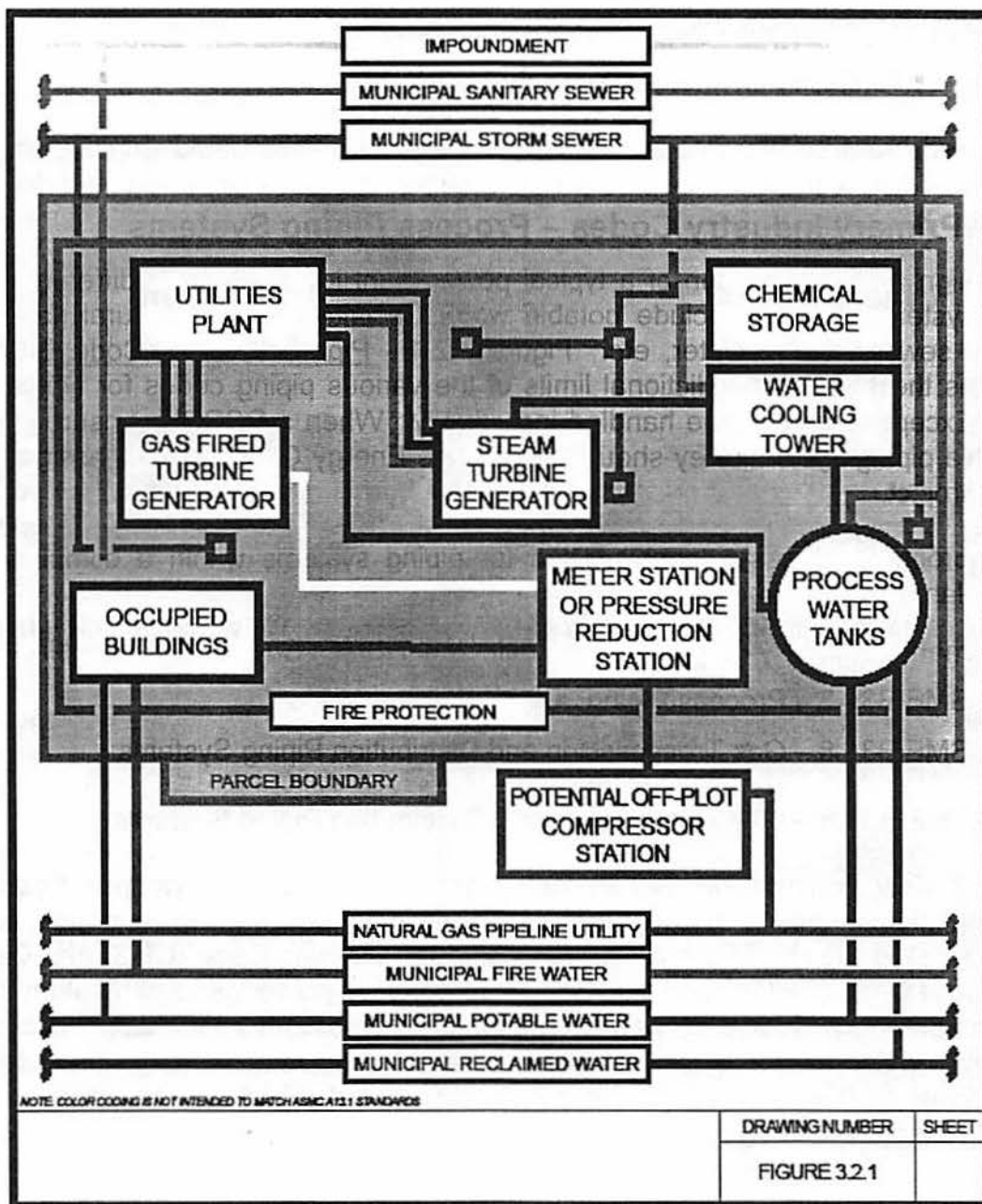
The design and construction of a typical power plant includes many different types of piping systems. These include potable water, reclaimed water, natural gas, steam, sanitary sewers, storm water, etc. Figure 3.2.1 - Piping Systems Code Boundaries illustrates the general jurisdictional limits of the various piping codes for typical power plant. Exceptions should be handled individually. When a DCBO is unsure of how to classify a piping system, they should contact the Energy Commission's assigned CPM for the project.

The appropriate industry codes utilized for piping systems within a combined cycle power plant design may include:

- American Society of Mechanical Engineers (ASME) B31.1 – Power Piping,
- ASME B31.3 – Process Piping, and/or
- ASME B31.8 – Gas Transmission and Distribution Piping Systems.

Design, review, construction, and inspection of a particular piping system will conform to only one piping code. The potable water, sanitary sewers, storm drains, etc. are jurisdictional to the requirements of the California Plumbing Code (CPC) and California Mechanical Code (CMC). The modern combined cycle power generating plant includes many different types of process piping systems. These include steam, natural gas, ammonia, water, wastewater injection, hydrogen and other chemicals, which are jurisdictional to the requirements of ASME B31.1 and B31.3 as, depicted on Figure 3.2.1 – Piping System Code Boundaries.





#### **A. ASME B31.1 – Power Piping**

ASME B31.1 Power Piping - This code prescribes minimum requirements for the design, materials, fabrication, erection, testing, and inspection of power and auxiliary service piping systems for electric generation stations, industrial institutional plants, and central and district heating plants. The code covers external piping for power boilers<sup>3</sup> operated at high temperature and water boilers operated at high pressure. These vessels typically produce steam (or vapor) at a pressure of more than 15 psig. Operating conditions for the high temperature water piping are pressures exceeding 160 psig and/or temperatures exceeding 250 degrees F.

This code addresses high-energy steam piping systems where steam alone is the primary energy source to drive rotating machines. These rotating machines are the drivers for electrical generators.

#### **B. ASME B31.3 – Process Piping**

ASME B31.3 Process Piping - The Process Piping Code Section B31.33 has been developed considering piping typically found in petroleum refineries; chemical, pharmaceutical, textile, paper, semiconductor and cryogenic plants; and related processing plants and terminals. This Code prescribes the requirements for materials and components, design, fabrication, assembly, erection, examination, inspection, and testing of piping. This Code applies to plant piping for all fluids (not covered by the CBSC or pipeline related fluids), including: (1) raw, intermediate, and finished chemicals; (2) petroleum products; (3) gas, steam, air, and water; (4) fluidized solids; (5) refrigerants; (6) cryogenic fluids. Also included within the scope of this Code is piping which interconnects pieces or stages within a packaged equipment assembly.

This code addresses the more complex plant environment where natural gas, steam, and chemical piping systems are present.

#### **C. ASME B31.8 – Gas Transmission and Distribution Piping Systems**

ASME B31.8 Gas Transmission and Distribution Piping Systems - This Code covers the design, fabrication, installation, inspection, and testing of pipeline facilities used for the transportation and distribution of gas, including natural gas. This Code also covers safety aspects of the operation and maintenance of those facilities. Specifications for gas piping systems can vary depending on jurisdictional control. The DCBO should be aware of which specifications are applicable, as local, state (California Public Utilities Commission (CPUC)) and federal (Federal Energy Regulatory Commission (FERC)) can differ.

#### **D. ASME B31.2 – Fuel Gas Piping**

ASME B31.2 Fuel Gas Piping – This Code was withdrawn as an American National Standard on February 19, 1988, however it is still available from ASME as a historical

<sup>3</sup> The design and fabrication of high temperature and high pressure vessels are governed by other volumes of the ASME Pressure Vessel Codes.

document for reference. This obsolete code is not be used for the design and construction of current or future power plant fuel gas process piping.

***E. How DCBO Responsibilities Vary Between CBSC and Primary Industry Code Reviews***

The Energy Commission charges the DCBO with the authority to insure that the design and construction of ASME piping systems comply with the proper piping code (as required by the Energy Commission's Final Decision and COCs). However, the Energy Commission does not want to add DCBO exhaustive plan check and design review requirements to the existing ASME piping codes. This means that the DCBO should focus on the project owner's overall design and quality assurance processes.

The DCBO design and quality assurance process should include reviews of the following items:

- The DCBO shall review the methods employed by the project owner for high energy piping stress analysis. For ASME piping systems, samples of stress analyses should be reviewed to insure that the proper methodology and that the stresses comply with code allowables. This review should investigate the process to be used to evaluate field changes. This should include stress evaluation and documentation work processes.
- The DCBO shall verify that piping design specifications adequately address the operating conditions and ranges of the anticipated process variables (e.g., pressure, temperature, pipe contents, vibration, coatings, material compatibility, etc.). This review should include checks to verify consistency between the specifications, the pipe models, and the design drawings (piping plan and details, isometrics, and piping and instrumentation diagrams).
- The DCBO shall review typical piping drawings (isometric and plan/elevation drawings), supports, etc.
- The DCBO shall review welding procedures, welding procedure qualifications, and welder certifications.
- The DCBO shall review the project owner's process piping QA/QC process (e.g., material procurement, material certifications, material verification during fabrication, weld inspections, etc.) to insure that the installed process piping systems comply with all design code requirements.

This review will inherently involve a demonstration of competence by the project owner. With demonstrated competence, less frequent and extensive reviews may be required. Identified problems may justify more frequent reviews and oversight.

The DCBO is to perform periodic material QA/QC process checks. No formal submission to the DCBO is required. Records (e.g. mill records and certificates) must

be available for DCBO review to insure that the QA/QC process is resulting in the desired result.

The construction QA/QC process should also be reviewed and periodically checked. Again, there are no formal submissions to the DCBO for welder certifications, welding procedures, and x-ray inspections. However, records must be available for the DCBO's review to insure code compliance.

The DCBO inspectors should periodically perform field observations of process piping construction to insure a code compliant system is being constructed. This will provide the Energy Commission with a level of assurance that the systems are code compliant.

This by no means removes the involvement of the DCBO from the process piping design and construction process. It simply modifies the DCBO role for process piping systems to more of an oversight of the project owner's design and construction process (assuming the project owner's QA/QC systems are resulting in code compliant construction). The DCBO should note and report any process breakdowns or shortcomings to the project owner and the CPM. The DCBO shall follow-up to review process corrections.

Generally, for process piping subject to the ASME codes, this design and construction process review will:

- Eliminate the need for the DCBO to review and approve every process piping drawing and supporting calculations developed for the project,
- Eliminate the need for the project owner to submit for approval copies of all process piping inspection documents (e.g. welding procedures, welding procedure qualification records, welder qualification records, etc.) to the DCBO, and
- Eliminate the need for the project owner to submit for approval copies of all changes to the process piping system.

It is important for the project owner to note that this design process does not eliminate the need to submit all process piping drawings to the DCBO for record keeping/tracking purposes and to facilitate the overall inspection of the process piping systems.

### **3.3 49 CFR Part 192 – Federal Natural Gas Pipeline Regulations**

Many power generation stations which are designed, constructed, and operated under the jurisdiction of the Energy Commission include natural gas pipelines and compressor station components. The design, construction, operation, inspection and maintenance of natural gas pipelines involve compliance with Federal Pipeline Safety Regulations 49 CFR Part 192 - Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards. 49 CFR Part 192 incorporates by reference the design, construction, and testing standards of ASME B31.8 – Gas Transmission and Distribution Piping Systems described above. These regulations and design standards have evolved over

the years to improve public safety through improvements in design, integrity assessment, and integrity management. Operations and Maintenance Plans, and Integrity Management Plans should be in place prior to the start of operations of any natural gas pipeline.

### **3.4 National Fire Protection Association (NFPA) Standards**

The CBSC includes by reference a number of NFPA standards and recommended practices. These include a large number of specialized standards and practices, some of which have no bearing on the design and construction of a power plant. Not referenced within the CBSC is the primary fire protection standard for a power plant. This standard is NFPA 850 – Recommended Practice for Fire Protection for Electric Generating Plants and High Voltage Direct Current Converter Stations. Within this standard, many of the CBSC referenced NFPA standards are incorporated by reference. The appropriate application of those standards within the power plant environment is presented. NFPA should be the primary fire protection standard used within the power plant because of unique fire protection requirements of a power plant as compared to a typical building structure.

### **3.5 Other Design Related Conditions of Certification**

COCs vary from project to project. The DCBO must understand this fact and become familiar with the applicable COCs for a particular project. Although not an inclusive list, these COCs typically involve:

- Air Quality: stack height;
- Biological Resources: avian protection measures
- Hazardous Materials: double-walled piping and tanks;
- Land Use: setbacks, retaining walls, signage;
- Noise: gas compressor enclosure
- Soil and Water Resources: SWPPP, recycled water facilities ;
- Traffic and Transportation: route and specific design requirements
- Visual Resources: lighting requirements;
- Worker Safety and Fire Protection: local fire codes.

The Energy Commission CPM will define the DCBO's involvement, and their compliance oversight responsibilities for compliance with these COCs for each project. The CPM will coordinate with staff by providing staff with project construction information so that staff can make the necessary decision regarding DCBO's involvement.

## **4.0 Typical Project Responsibilities and Milestones**

The following sections describe the typical project milestones for a power plant project.

### **4.1 Contracting and the Energy Commission**

The involvement of an Energy Commission DCBO begins with the STEP Division's selection process and the subsequent third party beneficiary clause included in the contracting documents drafted by the selected DCBO and the project owner.

The Energy Commission's third party beneficiary status does not burden the State with any financial responsibility to the DCBO. The project owner financially compensates a DCBO. The project owner and the DCBO enter into a contractual agreement that defines the scope and compensation of the DCBO. Work performed by the DCBO without a contract is at their risk. It is in the interest of the project owner to finalize a contract with the DCBO as expeditiously as possible to avoid delays.

### **4.2 Project Kickoff Meeting**

All power plant projects should include a project kickoff meeting conducted by the Energy Commission early in the project design process. The Energy Commission's CPM schedules and conducts this meeting. The CPM is responsible for developing the agenda. Typically, this project kickoff meeting is held at the Energy Commission headquarters in Sacramento, California. Key members of the Energy Commission, the DCBO, the project owner, and other Federal / State agency stakeholders are invited and encouraged to attend. Key individuals are introduced to provide a face-to-face personal connection intended to foster communication and teamwork. Discussed at this kickoff meeting are high-level issues and the identification<sup>4</sup> of plans forward. This kickoff meeting can be used to identify potential issue resolution teams.

#### ***A. Project Overview***

An overview of the project is presented by the CPM and the project owner. Communicated information includes the power plant location, size, design basis, special technology, and other general project data. Presented during this discussion are project stakeholder expectations. All attendees have a chance to provide input from their project responsibility perspective. This interaction eliminates surprises during the project. Special COC compliance issues and timeframes for completion are normally discussed.

#### ***B. Roles and Responsibilities***

Attendees are briefed regarding the roles and responsibilities of the various groups anticipated to interact during the course of the development of the project. Where perceived overlaps exist, the kickoff meeting provides an opportunity to clarify the scope

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<sup>4</sup> It is not the intent of the kickoff meeting to resolve all issues, but to identify those issues that require special attention and resolution.

of responsibilities of each stakeholder. The intent is to clarify vague or undefined stakeholder involvement in an effort to develop a mutual understanding and increase project execution efficiency. It is an opportunity early in the project to communicate expectations and objectives and to resolve any misconceptions by the stakeholders regarding their roles and responsibilities.

### ***C. Timing and Schedule / Critical Path and Conflict Resolution***

During the kickoff meeting, both the Energy Commission and the project owner communicate their current work in progress and projected completion time lines. Typically, the kickoff meeting precedes the Energy Commission's notice-to-proceed with site construction efforts, and the COCs typically require a number of pre-construction site mobilization requirements. The pre-construction requirements are discussed at the kickoff meeting so that a critical path can be identified that enables the project owner to plan and schedule construction mobilization.

During this meeting, the project can discuss other critical path issues (once construction site work has commenced) and the impact they may have on the Energy Commission, the DCBO and other agencies. The Energy Commission, DCBO and other agencies can provide feedback to the project owner regarding anticipated timing and possible impediments to timely completion. In the case of the DCBO, any project desired compression of schedule might result in increased labor costs not included in their original contract documents with the project owner. The impact of planned construction schedule compression is best resolved before significant DCBO work begins. The emphasis of the kickoff meeting is information sharing to facilitate project implementation. While the parties are encouraged to resolve potential conflicts independently, if problems persist, or code interpretation is at issue, notify the CPM promptly. The CPM can provide guidance and facilitate the issues informally, or if resolution between the parties remains elusive, the CPM can convene a more formal meeting to seek resolution.

### ***D. Document Submittal Process Review***

The DCBO provides an overview of the document submittal process that includes a high-level demonstration of the web-based submittal process. This document submittal process shall be consistent with the Energy Commission's expectation of such a system as defined herein. This review will provide an opportunity to resolve any issues regarding the submittal process before significant numbers of electronic submittals begin.

### ***E. Inspection Performed and Inspection Request Process Review***

Similar to the document submittal process review outlined above, the DCBO is encouraged to review the construction inspection process in place for the project. This includes the methods and timing available to the construction team to request inspections of in-process and completed task work.

### **4.3 Creation of DCBO Project Website**

Upon execution of a contract with the project owner, the DCBO must create an Energy Commission project website. This website is where the Energy Commission accesses documents and reviews project progress. The DCBO selection letter will define the requirements for this password protected internet website.

### **4.4 Initial Document Submittal Review – COC Compliance Assistance**

The DCBO should be mindful that the Energy Commission might request the DCBO to review some preliminary documents submitted to the Energy Commission as required by the COC. The DCBO should communicate this to the project owner during their contract negotiations. The amount of time required for this type of work varies from project to project.

### **4.5 Document Submittal Reviews and Approvals**

The bulk of the work performed by the DCBO involves the review of construction drawings, calculations, and other documents supporting the engineering. This work often (and should only) begins after the execution of a contract. This document review and approval process requires the DCBO to develop an internet based document management system. This document management system tracks the large number of documents from original submittal to the as-constructed stage of the project. A detailed description of the Energy Commission's expectations for a document management system is included in this guidance document. The DCBO should anticipate concurrent document submittals with ongoing construction.

### **4.6 Construction Inspection and COC Compliance Oversight**

The DCBO shall conduct field inspection and Energy Commission COC compliance oversight. In this role, the DCBO is responsible for the inspection of constructed facilities to insure compliance with the approved construction drawings. The DCBO inspectors insure that the DCBO plan review team approves all construction documents prior to use in the field. Construction should not proceed without stamped "approved for construction" drawings. The DCBO inspection team is responsible for the oversight of the special inspections performed by the project owner. This includes the oversight of the record keeping of the special inspectors.

There are tasks not typically performed by building departments inspectors that are a part of the Energy Commission DCBO responsibilities. These involve compliance items identified within the COCs, which are listed in this document.

### **4.7 As-Constructed Document Package**

The final task performed by the DCBO is the oversight/development of the as-constructed document package. The submittal of the as-constructed document package to the Energy Commission is for document archival purposes as required by



the COC's. This is an electronic file based submittal, typically submitted on compact disk (or DVD) media in an Adobe Acrobat PDF file format.

The as-constructed drawings originate from redlined construction drawings. The project development team at the power plant site maintains the redlined drawings. The DCBO construction inspectors insure that the project development team captures field changes. The DCBO will receive the revised construction drawings from the project development team's Engineer of Record and combine them with the project supporting documents to create the as-constructed document package. The supporting documents include, but are not limited to the following:

- Construction drawings;
- Supporting calculations;
- Construction specifications;
- Inspection records;
- Special inspection records; and
- Worker safety records, etc.

The files should be organized on the CD/DVD by COC section:

- General - GEN;
- Civil – CIVIL;
- Structural – STRUC;
- Mechanical – MECH;
- Electrical – ELEC.
- Transmission Systems Engineering– TSE.

The DCBO is responsible for verifying the completeness of this package, which should include any additional linear facilities within the Energy Commission's jurisdiction that is not included the six above facility design elements. The Energy Commission receives one copy, a second is transmitted to the owner.

## **5.0 Best Practices and Procedure Guidance**

This section focuses on the tasks associated with the document / plan review and inspection aspects of the DCBO's responsibilities. The development of a power plant project typically involves concurrent design and construction efforts. Grading and site plans (or other preliminary civil works) are typically the first designs submitted for review and approval. Once approved, civil site construction work begins. Foundation designs and detailed site underground utility designs follow next. Some time may pass before process piping and electrical designs arrive at the DCBO for review. It may also be some time after a design review commences that actual construction requires a significant inspection staff on-site. This "fast track" design and construction process requires well-organized processes in place to track all submittals in their various stages of development.

It is an important practice to prepare well-documented review comments. This aids the project owner. First, significant time may pass between subsequent submittals of the same package. As a result, well-documented comments, citing CBSC specific sections, paragraphs, and tables, eliminate the project owner's reliance on his team's memory to effectively respond to specific DCBO submittal comments. Second, detailed comments provide better directives for code compliance. Well-documented comments substantiate specific non-code compliance observations by the DCBO and eliminate issues relating to opinions vs. facts.

### **5.1 Document Submittal and Tracking System**

The DCBO's document submittal and tracking system shall be an internet / website based electronic process where the hardcopy transmittals of documents are minimal. As stated in Section 2.4, this system will be username and password protected to restrict access to submittals. The submittal and tracking process must provide submittal associative links to review comments, approvals, inspection requests and construction approvals. The tracking system must possess a multi-level file structure that organizes the submittals by:

- Section within the COC requiring the submittal,
- Chronological order and date of the submittal,
- Approval status of the submittal including partial approvals,
- Time anticipated for completion of the DCBO's review,
- Document review comments,
- Subsequent re-submittal of the corrected documents,
- Approved by the DCBO and availability (for printing with DCBO approval stamp affixed) for construction,

- Construction inspection requests, and
- Inspection comments, rejections and approvals.

Minor variations to the structure offered herein may be acceptable if approved by the Energy Commission prior to the start of a project. Alternative methods of saving documents within a traditional multilevel file structure are acceptable, provided they function in a similar manor. Database (document) tracking systems are acceptable, provided they are organized with a search engine that locates submittals / documents in the same logical fashion as would be done within a traditional data file-server structure.

Figure 5.1.1 – Document Tracking System File Structure that follows graphically depicts the file structure required by this section.

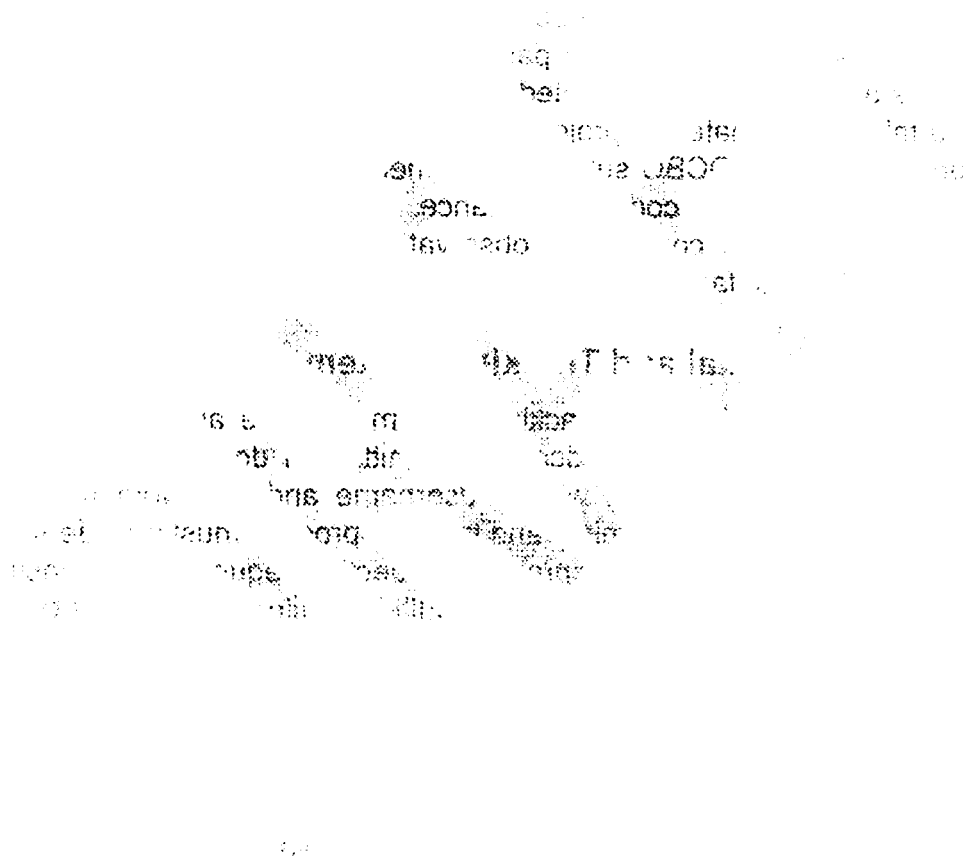
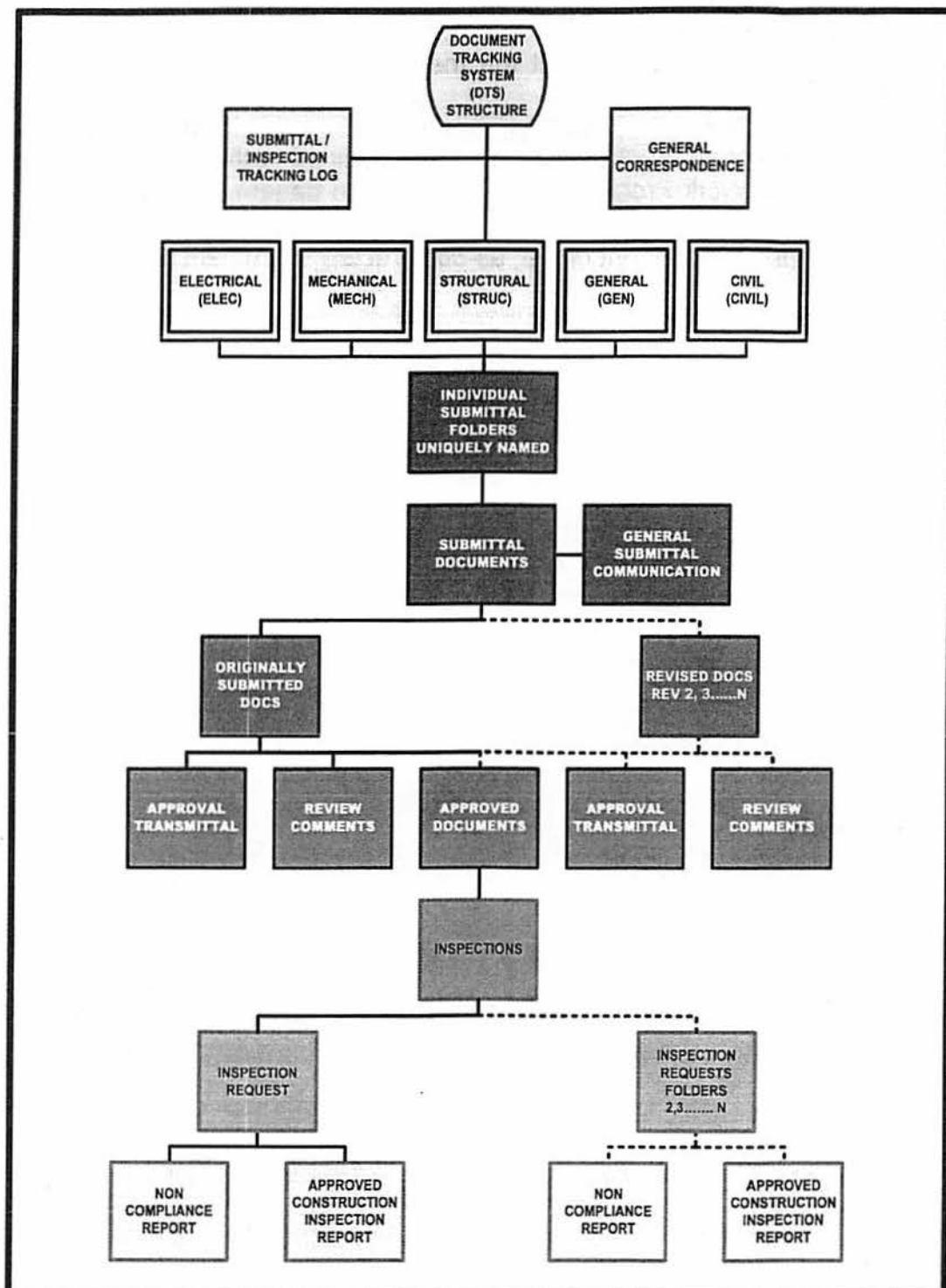


Figure 5.1.1 – Document Tracking System File Structure

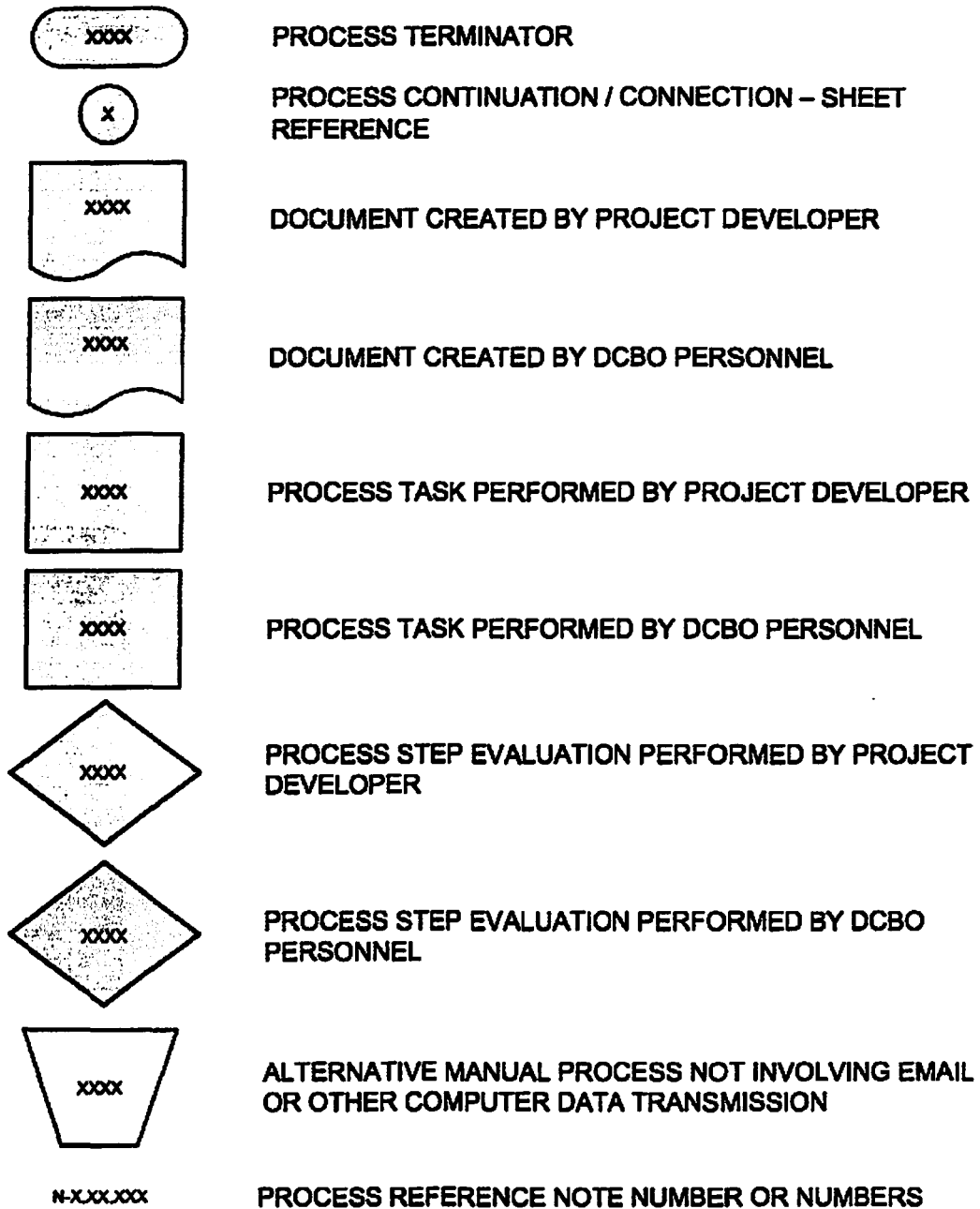


#### **A. DCBO Work Process**

The tasks involved in the day-to-day work functions of a DCBO should follow a logical and consistent step process. It is not the intent of this guideline to restrict the creativity, nor limit potential efficiency improvements, of any DCBO processes. The Energy Commission does not intend to restrict the methods and systems used to create an efficient document tracking system.

The DCBO's work process should follow the steps outlined in the following flow charts. Figure 5.1.2 – DCBO Work Process Flow Chart (seven pages) that follows provides a graphical depiction of the typical work process from the project owner's document submittal through the development of the "as-constructed" document package.

Figure 5.1.2 – DCBO Work Process Flow Chart




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### SYMBOLS LEGEND

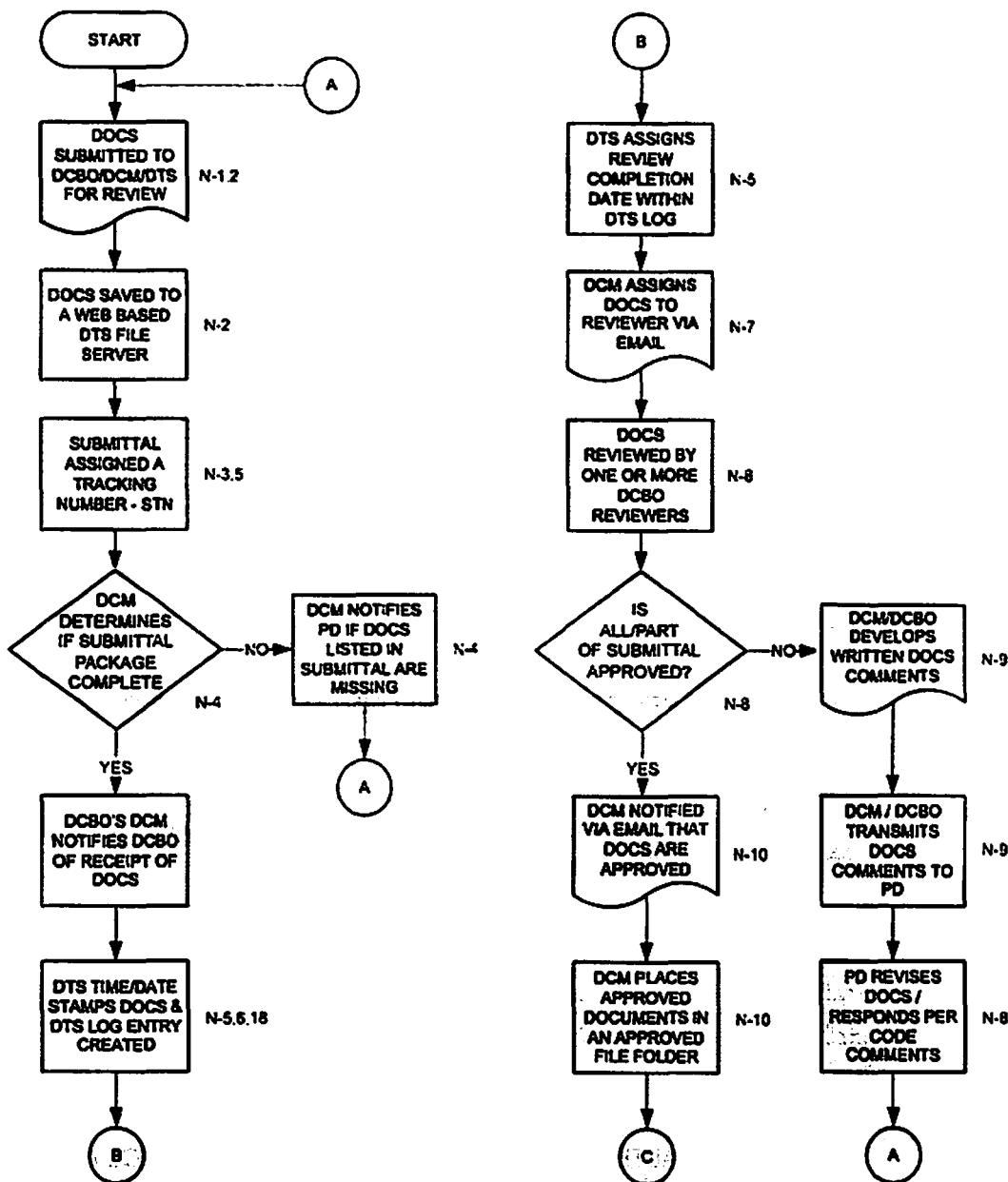
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#### ABBREVIATIONS USED IN THIS DOCUMENT

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ACDP – AS CONSTRUCTED DOCUMENT PACKAGE  
 CBC – CALIFORNIA BUILDING CODE  
 CEC – CALIFORNIA ENERGY COMMISSION  
 COC – CONDITIONS OF CERTIFICATION  
 DCBO – DELEGATE CHIEF BUILDING OFFICIAL  
 DCM – DOCUMENT CONTROL MANAGER (DCBO)

DOCS – SUBMITTED DOCUMENTS TO DCBO FOR REVIEW  
 DTN – DOCUMENT TRACKING NUMBER  
 DTS – DOCUMENT TRACKING SYSTEM  
 N-“X” – NOTE REFERENCE NUMBER SHOWN ON CHART  
 LORS – LAWS, ORDINANCES, REGULATIONS, AND STANDARDS  
 PD – PROJECT DEVELOPER / OWNER

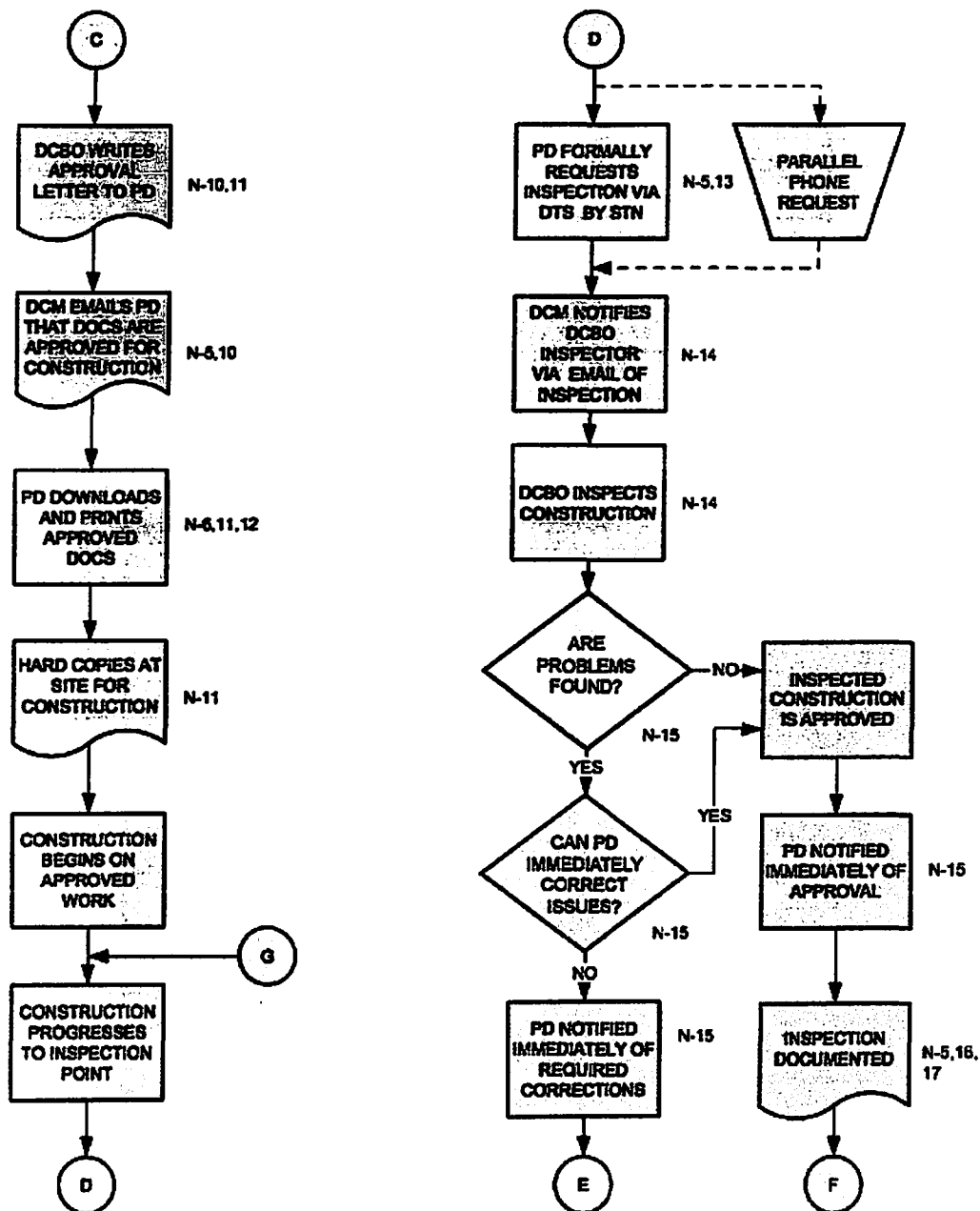


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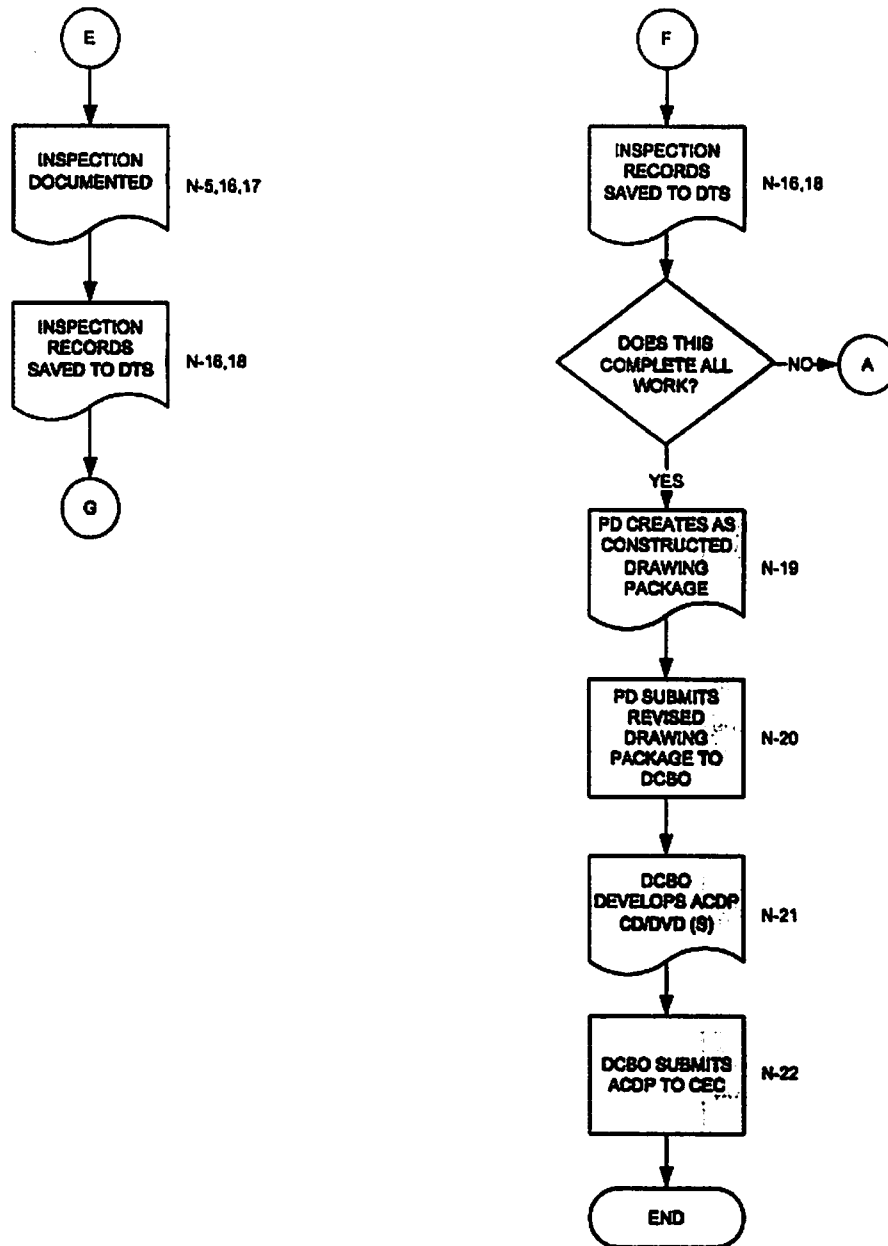
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 PD - PROJECT DEVELOPER / OWNER

## NOTES REFERRED TO IN CHARTS

1. The project developer (PD) shall include a transmittal letter with all submittals that identifies the conditions of certification (COC) that applies to the submittal (i.e. struc, civil, mech, etc.). The transmittal shall include a listing of all attached documents.

2. It is suggested that all submittal documents (DOCS) be uploaded directly to the delegate chief building official's (DCBO) project website. That website shall have the capability to automatically notify the DCBO's document control manager (DCM) of the submittal receipt into the document tracking system (DTS). Alternatively, the docs may be emailed directly to the DCM to be saved to the web based DTS. Given the size of the typical electronic submittals, it is best that the DTS provide direct upload/download capabilities similar to an ftp internet site. In this flow chart, submittals and docs are somewhat interchangeable terms.

3. Submittals shall be assigned a submittal tracking number (STN) that in some way references the appropriate section of the COC. The submittal shall be assigned a unique sequential identification number (i.e., struct-1-1 for the first document submitted under structural condition 1).

4. The DCM shall review the content of the submittal and verify the presence of all listed docs on the PD's transmittal letter. Any discrepancies shall be communicated to the PD via email so that missing / unreadable documents can be replaced. The DCM will notify the DCBO and other interested parties of receipt of submittal into the DTS.

5. The DTS must include a submittal log feature that records: submittal date; list of included docs; anticipated completion date of the review; current review status; date of approval; revision history; inspection requests; and completed inspections including links to inspection documents. This allows a person reviewing the log to quickly determine what submittals have been made and their status. This log shall be organized by COC requirement. The log shall provide a link (for authorized individuals) to view the submitted docs, comments provided by a DCBO reviewer, and responses made by the PD. These should be "read only" documents and not accessible for editing and/or re-save.

6. The DTS shall provide a means to search for /look up / find documents, drawings, specifications, etc. by the assigned STN. This feature is intended to allow authorized DTS users to quickly find individual docs by STN and to determine their current project status.

7. The DCM assigns (with input from the DCBO) a reviewer (or reviewers) to each submittal and the DCM shall notify, by email, that the docs are available for his review. The email shall include a deadline reminder for the reviewer.

8. All, or portions of, a submittal, may be approved. If a submittal contains multiple drawings or other docs, individual docs within the submittal can be approved separately. This is intended to reduce the paperwork for re-submittals. If individual drawings, or docs, are approved separately, the same STN shall be assigned to the subsequent submittal throughout the review process. However, this does not preclude docs from being included within a new submittal receiving a new STN. Subsequent submittals shall simply provide a sequence modifier to designate the revision submitted as appropriate. The intent is to reduce the volume of STN's.

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### SYMBOLS LEGEND

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#### ABBREVIATIONS USED IN THIS DOCUMENT

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ACHP – AIR CONDITIONED EQUIPMENT PACKAGE  
 CBC – CALIFORNIA BUILDING CODE  
 CEC – CALIFORNIA ENERGY COMMISSION  
 COC – CONDITIONS OF CERTIFICATION  
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 DTS – DOCUMENT TRACKING SYSTEM  
 NFN – NOTE REFERENCE NUMBER CHOWN ON CHART  
 LDRG – LAWS, ORDINANCES, REGULATIONS, AND STANDARDS  
 PD – PROJECT DEVELOPER / OWNER

9. The DCBO will provide written review comments to the PD when docs are not approved. These comments will cite the specific CBC laws/ ordinances/ regulations/standards (LORS), or COC non-compliance observed in the docs. In certain situations the DCBO may issue conditional approvals of submittals. The DCBO will not provide design suggestions or engineering in non-compliance comments. The responsibility of the DCBO is to review submitted docs for DHD/LORS compliance. If asked by the PD, the DCBO can offer compliance guidance, but should limit that to guidance and not offer engineering services.

10. The DCBO will provide a written approval transmittal. The DCM will email that transmittal to the PD. This notification will define what documents have been approved, their STN, and will define the inspections required for the work defined on the approved drawings (i.e. soil compaction, rebar placement, concrete strength tests, etc.)

11. Documents approved by the DCBO must be stamped with the DCBO's approval stamp (*secure pdf file format*) to become approved construction drawings. These must be present at the construction site and must be used as the construction drawing set for construction to proceed. The DCBO may authorize work to proceed at the PD risk prior to receipt of approved drawings under special approved requests. Work performed inconsistent with the details provided on approved drawings may be subject to demolition. Any rework performed would be the responsibility of the PD. Docs approved for construction must be readily located within the DTS by individuals authorized to access the DTS.

12. It is the responsibility of the PD to download approved docs from the DTS for reproduction from the approved docs folder of the respective STN.

13. The DTS shall provide a means for the PD to formally request inspections directly from within the DTS for completed construction activities (or for progress inspections as applicable). This will serve as the official documentation of requested inspections. The DCBO inspectors are encouraged to interface daily with the PD team members to foster face-to-face verbal communications that parallel the formal computer based inspection request process. The DCBO is further encouraged to have periodic meetings with the PD team members to discuss planned construction in order to efficiently plan for upcoming inspections.

14. The DTS based inspection request should automatically initiate an email to the DCBO lead inspector notifying him of the formal inspection request. The email should generate an inspection form that defines the work to be inspected, related docs, the STN, the inspections required for the defined work, and the date/location of the requested inspection. The DCBO and the PD shall agree upon a suitable typical lead time between the inspection request and the date of the inspections. This lead time should be agreed to before the start of construction, but is typically 24 to 48 hours prior to the planned inspection.

15. DCBO inspectors shall provide immediate (within a few hours of the inspection) written approval / disapproval of any formally inspected work. This can be a hand written notification using the DTS generated inspection form. If deficiencies are found that cannot be immediately corrected, the inspector shall clearly define how the work failed to comply with the California building code (CBC) laws, ordinances, regulations, and standards (LORS), or the approved drawings.

16. The DCBO inspectors shall save these written inspection records to the DTS (saved in the file structure by STN) for permanent record keeping.

## SYMBOLS LEGEND

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ACDP - AS CONSTRUCTION DOCUMENT PACKAGE  
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CFC - CALIFORNIA FIRE CODE COMMISSION  
COC - CONDITIONS OF CERTIFICATION  
DCBO - DELEGATE CHIEF BUILDING OFFICIAL  
DCM - DELEGATE CHIEF BUILDING OFFICIAL (OWNER)

DOC - BUILDING DOCUMENTS TO DCBO FOR REVIEW  
DTN - DOCUMENT TRACKING NUMBER  
DTS - DOCUMENT TRACKING SYSTEM  
N.R. - NOTE REFERENCE NUMBER SHOWN ON CHART  
LORS - LAWS, ORDINANCES, REGULATIONS, AND STANDARDS  
PD - PROJECT REVIEWER / OWNER

17. DCBO's are encouraged to use portable computer devices (*laptops, tablet pc's, smart phones, etc.*) To access email and the project DTS website to improve the communication, documentation and reporting process described herein.

18. The DCBO DCM shall maintain a log of all email correspondence pertinent to all submittals, reviews, comments, approval, inspection requests and inspection activity.

19. It is the responsibility of the PD to maintain "as-constructed" records for all construction. During construction, these records can be "red-lined" field mark-ups of the approved construction drawings. It is the responsibility of the PD to revise all cad drawings to an "as-constructed" state upon completion of the construction.

20. The PD shall transmit all as-constructed documents to the DCBO upon completion. The DCBO/CEC will not approve the plant for commercial operation until these as constructed docs have been received by the CEC.

21. The DCBO shall assemble all project docs into an as constructed document package (ACDP). The ACDP shall include, but not be limited to, the following typical docs and records: drawings, specifications, calculations, review comments, inspection records, etc.

22. The DCBO is responsible for the compilation of the ACDP onto a CD/DVD electronic media and the submittal of the ACDP to the CEC.

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## SYMBOLS LEGEND

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CEC - CALIFORNIA ENERGY COMMISSION  
CCC - CONDITIONS OF CERTIFICATE  
DCBO - DELEGATE CHIEF BUILDING OFFICIAL  
DCM - DELEGATE CHIEF BUILDING OFFICIAL MANAGER

DCS - DELEGATE CHIEF BUILDING OFFICIAL REVIEW #  
DTN - DOCUMENT TRACKING NUMBER  
DTS - DOCUMENT TRACKING SYSTEM  
N/A - NOTE REFERENCE NUMBER SHOWN ON CHART  
LRS - LAWS, ORDINANCES, REGULATIONS, AND STANDARDS  
PD - PROJECT DEVELOPER/OWNER

### ***B. Document Tracking System Submittal Log***

The DCBO shall maintain a document submittal log. It shall follow the file structure logic to track submittals from original receipt through final inspection. The submittal log should provide a means to identify:

- Which documents are contained within a submittal;
- Which documents have been approved;
- Which documents have been revised;
- The current document revision number; and
- The status of any inspections performed.

The DCBO shall develop a query function within the document tracking system that facilitates locating and determining the status of every submittal, drawing, inspection, report or other document. The query function shall have the capability to link with the submittal. For example, if an authorized individual knows a particular drawing number, that drawing number should allow the individual to ascertain the status of that drawing (submittal date, approval status, inspection status, etc.), as well as any supporting calculations. If the authorized individual knows a particular submittal identification number, he should be able to check the status of the submittal and the individual documents contained therein. The query function shall also have the capability to gather data relating to the various sections within the COC. For example, an authorized individual should be able to query a list of STRUC-1 compliance submittals.

### ***C. Access to All Historical Submittal Documents***

The document tracking system used by the DCBO must maintain all documents submitted to the DCBO as required by the COCs. It is important that a historical document archive be maintained and accessible to authorized individuals. Simply having the most current version of a document in the document tracking system does not provide an adequate record of the submittal history. As illustrated in Figure 5.1.1 - Document Tracking System File Structure, the document tracking system shall maintain the minimum types of project documents shown. The DCBO must develop a process wherein authorized individuals can search for documents using the logic<sup>5</sup> depicted in that illustration.

### ***D. Electronic Submittal of Document and Secure PDF's***

Documents submitted to the DCBO must be in an Adobe Acrobat® PDF secure electronic file format. The identity of the engineer-of-record is associated with a digital signature. This digital signature is traceable to his or her designated computer. This provides assurances to the DCBO / Energy Commission that all documents submitted

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<sup>5</sup> Figure 5.1.1 is located in Section 5.1 of this document. The figure represents the proper organization of project documents within the document tracking system and the logical path one would follow when performing a document search.

to the DCBO where originated by the engineer-of-record, properly reviewed and approved for submittal.

The placement of an electronic professional engineer's stamp on documents is acceptable within the State of California according to California Code of Regulations Title 16, Division 5, § 411 – Board of Rules and Regulations Relating to the Practices of Professional Engineering and Land Surveying. The State of California also permits (in this same section) the use of electronic signatures. The DCBO shall accept the stamping and signing of documents developed by professional engineers using the same secure PDF file format. These stamps and signatures must be traceable to the professional engineer responsible for the development of the given document.

The benefits of this electronic submittal process are twofold. First, mailing of hard copies is not required, which reduces submittal and response times, instead of waiting days for hard copies to arrive, instantaneous documents submittals occur. Second, the promotion of conservation of our natural resources occurs and waste is reduced.

The DCBO must provide document security and backup methods to the CPM for review and approval to ensure that the electronic submittal process is secure.

#### ***E. Partial Submittal Approvals / Re-Submittals***

The project owner often submits multiple documents/drawings within a single submittal. The DCBO will review the submittal and approve individual documents within a submittal if possible to expedite the document review process. The documents/drawings that require re-work will be allowed to be resubmitted alone as a revision to the original submittal.

#### ***F. Document Review Comments and Specific Code Compliance Deficiencies***

The DCBO should provide document review comments regarding specific non-code compliance to a project owner. These non-compliance comments should reference the applicable CBSC section or other LORS. Review comments should be limited to non-code compliance issues only. The DCBO should not offer opinions regarding designs.

#### ***G. Engineering Changes of Approved Documents – Engineering Change Notices***

It is common for projects to reach the construction phase only to discover a design change is required. For relatively minor changes, the change process will involve only simple redline markups of the approved construction drawings by the project owner. For changes that involve more significant design deviations, the Engineer of Record may perform calculations and develop written directives to the contractor referred to as Engineering Change Notices (ECN). An ECN may provide details on a change in an anchor bolt design, or installation process, or the upsizing of rebar in a foundation to handle an increased load. The DCBO's submittal process should include provisions to accept ECNs for approved drawings when minor redesign is required without the resubmittal of an entire drawing package. ECNs, tracked as a submittal, are linked to the originally approved documents. An ECN requires the Engineer of Record to submit

the engineering change to the DCBO for approval. Once approved, the ECN returns to the project owner's construction team. There, the ECN attaches to the approved construction drawings which are maintained at the construction site. The as-constructed documents should capture the substance of all ECNs.

ECNs do not replace design submittals for new facility components added to a project. ECNs do not replace submittals for major changes in structures, foundations, or footprints of process units.

## **5.2 Inspection Process**

It is the responsibility of the project owner and DCBO to insure that the construction of a power plant is consistent with the approved drawings and specifications. It is the responsibility of the DCBO to perform, or oversee, the performance of the various inspections required by the CBSC. This includes the oversight of the project's special inspector's work. The project owner (not the contractor) employs the special inspectors. The DCBO approves the special inspector work force prior to the commencement of construction. The special inspectors submit their work reports to the DCBO. The construction inspection documents are the final component associated with design drawing submittals maintained within the DCBO's document tracking system.

The DCBO inspection responsibilities for a power plant involve the efforts of both office and field personnel. The two DCBO groups interact daily to insure the fulfillment of inspection needs in a timely manner and that the documentation is complete. The tasks relating to construction inspection performed by the DCBO include tasks outlined in the following subsections. The key to any successful DCBO field inspection operation is the cultivation of strong team relations with the project owner's construction organization.

### ***A. Approved Document Review Verification***

The DCBO field inspection team provides the assurance to the Energy Commission that all construction proceeds in accordance with approved documents. The DCBO's inspectors must observe the DCBO approval stamp on all construction documents used by the construction crews. If that approval stamp is not present, the inspectors should inform the DCBO and the project owner. The DCBO and the project owner may mutually agree that the work may proceed "at risk"<sup>6</sup>.

### ***B. Pre-Inspection Oversight and Communications***

The DCBO field inspection team should periodically be present during construction to observe work-in-progress. The DCBO is not responsible for general "ways and means of construction"; the DCBO is only responsible for compliance of the finished construction with the DCBO approved construction documents. The purpose of the pre-

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<sup>6</sup> The definition of "at-risk" is construction that proceeds according to non-DCBO-approved plans and specifications. Should a subsequently approved DCBO construction document conflict with an at-risk design, the project owner must take measures to correct the at-risk construction, up to and including demolition.

inspection effort is to communicate to the project owner when observed construction does not comply with the approved construction documents. The work-in-progress observations helps prevent re-work of construction. The DCBO field inspection team must establish a relationship with the project owner so that this work-in-progress observation effort is understood to be a value added effort and not an over-reaching additional inspection.

### ***C. Electronic and Verbal Inspection Requests***

The primary means for the project owner to request a required inspection of construction is electronic. The use of email, or the established DCBO website procedure, initiates the inspection process. Ideally, this should be a formality. The DCBO's inspection notification process must include the following feedback to the project owner's construction team:

- Acknowledgement that the inspection request was received;
- The inspection is in the process of being scheduled; and
- Any anticipated delayed scheduling of the inspection.

The DCBO field inspection team must establish a relationship with the project owner's construction team whereby initial verbal notifications of pending inspections prevail. Official notification (by the project owner) should follow all verbal inspection request communication. As construction becomes more complex, the formal notification process provides a documented record of the request to aid inspection planning.

### ***D. Partial Approvals and Progressive Task Inspections***

The DCBO construction inspection process must accommodate partial approvals and / or progressive task inspections. Many aspects of power plant construction commonly involve multiple-step inspections, such as reinforced concrete (e.g., rebar placement, concrete placement, and strength tests). Other construction may involve long time durations between inspection tasks. A building's below-grade drainage system's trench compaction and pipe placement occur well before concrete and structural steel components may be constructed.

### ***E. Electronic Approvals***

DCBO inspectors shall provide immediate (within a few hours at most) written approval / disapproval of any formally inspected work. This can be a hand written notification using the web-based DTS (document tracking system) generated inspection form. Prompt communication of construction deficiencies to the project owner is required. The inspector shall clearly describe how the work failed to comply with the CBSC, LORS, or the approved drawings. The DCBO inspectors shall save written inspection records to the DCBO's web-based document tracking system for permanent record keeping.

DCBO's are encouraged to use portable internet-ready computer devices (laptops, tablet personal computers, smart phones, etc.) for email and project website access.



These devices improve the communication, documentation and reporting process described herein.

The DCBO's document control manager (DCM) shall maintain a log of all email correspondence pertinent to all submittals, reviews, comments, approval, inspection requests, and inspection activity.

#### ***F. Status Reporting on Project Website with Photos***

The DCBO field inspection personnel play a key role in project status reporting. Their presence at the construction site provides the most up to date progress reporting available. Simple summary progress status reporting is adequate, unless specific issues arise that warrant more detailed reporting (e.g., commencement of major unit of construction, completed plant components, arrival on site of major PFAs, resolution of major issues, significant weather factors/impacts, unexpected events, accidents, etc).

Adequate weekly progress reporting includes current progress photo-documentation. General photo-documentation standards include: a brief description; directional reference and site map location, automatic date/time stamp and graphic scales (when applicable). DCBO progress reporting on the project website provides easy access to interested parties.

### **5.3 Site Presence**

The presence of the DCBO at the project site is essential for the successful completion of any power plant project. That ongoing presence fosters good communications and relationships, allows quick response to the needs of the project owner, and reinforces the role that DCBO inspection plays in a process plant environment where third party/jurisdictional agency inspections are not always common. Several key factors reinforce the role of DCBO project inspection.

#### ***A. On-Site Office - Separate and Private Facilities***

The DCBO project inspection staff should maintain an on-site office once construction begins. This office must be separate and private from the site offices maintained by the project construction staff. This allows the DCBO to conduct business in a confidential setting. One benefit is to provide an anchor for the construction inspection operations. Construction personnel know that this single location is available to interact/communicate with DCBO inspection personnel. The "permanent" presence provides the subtle statement that the DCBO inspectors are part of the everyday plant construction activities.

#### ***B. Best Available Communications***

The DCBO office should be equipped with the best available communication for voice and internet access. Voice communications should include cellular telephones and landlines, if commercially available at the site. The DCBO should provide telephone message recording for field inspection operations when no dedicated office personnel

are present. Some solar electric generating stations are in remote sites where landline voice lines are not available.

As stated above, DCBO's are encouraged to use portable internet-ready computer devices (e.g., laptops, tablet personal computers, smart phones, etc.) for email and project website access. These devices improve the communication, documentation and reporting process described herein.

### ***C. Regular Communication with Project Owner***

The DCBO field inspection staff is to be proactive in their communication with the project development staff. Daily communications are to be the minimum frequency acceptable to the Energy Commission. Daily communications establish a rhythm for the project where inspection expectations are firmly established.

### ***D. Regular Status Meetings with Project Owner***

Large industrial construction projects involve regular key team member meetings. The size of the project teams are often so large that regular coordination between construction functions is necessary for success (e.g., earthwork, site drainage, foundations, structural steel, electrical, mechanical, environmental, and other disciplines). This inter-discipline construction coordination fosters efficient work process transitions and scheduling. DCBO field inspection personnel should be part of these coordination meetings from day one. It is imperative that the DCBO field inspection personnel be part of some of these periodic open discussions. This is an opportunity for the DCBO personnel to develop effective relationships with the project owner's project team members.

### ***E. Coordination and Planning of Upcoming Inspections***

The DCBO should provide only the needed field inspection staff needed for a project. The DCBO should strive to have all field inspectors properly utilized for the inspection workload. The periodic project owner's project team meetings are a perfect venue to coordinate and plan for upcoming inspections. Mutually established short and long-range inspection needs are best. It is the Energy Commission's intent for the DCBO to efficiently staff the inspection team.

### ***F. Visible Site Presence***

The DCBO inspection personnel should maintain a visible presence at the project construction site. Simply spending time observing the construction achieves this visible presence. This presence accomplishes several important construction mindsets. The first is that the construction will proceed with Energy Commission constant oversight and that the Energy Commission will be vigilant in the enforcement of the COCs. Second, is that the construction team relationships can be established. Third, the project owner's construction team can potentially realize the value-added resource the inspectors provide with code compliance issues.

## 6.0 Specific Facility Guidance Issues

The design and construction of natural gas fired and solar generating stations have experienced design conditions that are not specifically addressed within the CBSC. This has at times, led to the DCBO trying to "fit" the design compliance into a section of the CBSC. It is the intent and goal of the Energy Commission to avoid these issues and to work through any unusual design issues in a fair and cooperative manor. It is not the Energy Commission's desire for the DCBO to hire research-engineering staff to develop complex solutions – that is the responsibility of the project owner. If the project owner can offer a reasonable industrial code standard for the particular design feature, the DCBO may accept that standard and not judge design compliance only using the CBSC, which may not address complex non-building design issues.

### 6.1 Common Issues Observed

The most common types of issues observed with past projects have involved:

- Pre-fabricated assembly construction and review;
- Fire prevention issues which did not consider NFPA- NFPA 850 – Recommended Practice for Fire Protection for Electric Generating Plants and High Voltage Direct Current Converter Stations;
- The impact of the Federal Natural Gas Pipeline Regulations 49 CFR Part 192 - Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards on fuel gas pipelines and compressor station design;
- Requirements for fire protection during the construction phase of a project vs. the completed power plant and
- Familiarity issues with the interaction of the Industrial Piping codes vs. CBSC plumbing and mechanical codes;
- Specification compliance and inspections of all linear facilities (gas, transmission, roadway and water), and Energy Commission jurisdictional appppurtenant facilities and utility tie-ins as per Public Resources Code §25120 and Cal. Code Regs., tit. 20 §1702, subd. (n);
- DCBO oversight for repairs and replacements during construction and until the final building occupancy permit is issued.

Past DCBO written guidance addresses many of these issues. (See Section 6.4 below) The Energy Commission recommends the DCBO review these guidance documents with the project owner where applicable.

## **6.2 Avoid Creating Issues**

The DCBO should avoid creating real or perceived design issues whenever possible. The best conflict avoidance tactic is the offering of code specific references to back the DCBO position on a matter. It is also best to listen to the project owner's argument for their position as well. The DCBO should avoid "my opinion" statements or "my experience" statements and maintain written code based positions on issues.

## **6.3 Excessive Design Reviews – Seek Energy Commission Input**

The DCBO should avoid excessive design reviews. This does not imply that the problem resides with the DCBO. Some designers may not be familiar with particular design issues (e.g., California Seismic Code compliance). If it appears the project owner's engineer is having difficulties with a design code compliance, addressing the issues early is best:

- Offer a round table discussion of the issue with all parties, and
- Seek the Energy Commission's input to help resolve the problem via a third-party perspective, if the round table discussion does not resolve the problem.

## **6.4 Specific Energy Commission Addressed Issues**

Many past issues have been resolved that address common design features found at most, if not all, power plant facilities. A number of these resolution efforts have involved the assistance of Energy Commission support personnel. Exhibit 2 – Specific Project Directives includes a collection of the common design guidance documents developed to date.

## **Exhibit 1 – Abbreviations, Terms, and Definitions**

## **Abbreviations and Terms**

American National Standards Institute (ANSI)  
American Petroleum Institute (API)  
American Society for Testing and Materials (ASTM)  
American Society of Civil Engineers (ASCE)  
American Society of Mechanical Engineers (ASME)  
Americans with Disabilities Act (ADA)  
Application for Certification (AFC)  
California Building Standards Codes (CBSC)  
California Electric Code (CELC)  
California Energy Commission (Energy Commission)  
California Fire Code (CFC)  
California Mechanical Code (CMC)  
California Occupational Health, and Safety Administration (Cal/OSHA)  
California Plumbing Code (CPC)  
California Public Utilities Commission (CPUC)  
California State Fire Marshal (CSFM)  
Compliance Project Manager (CPM)  
Conditions of Certification (COCs)  
Delegate Chief Building Official (DCBO)  
Document Control Manager (DCM)  
Document Tracking System (DTS)  
Emergency Shut Down System (ESD)  
Engineering Change Notice (ECN)  
Environmental Protection Agency (EPA)  
Federal Energy Regulatory Commission (FERC)  
Hazardous Liquid Pipeline Safety Act of 1979 (HLPESA)  
Hazardous Materials Management Plan (HMMP)  
Heat Recovery Steam Generator (HRSG)  
Institute of Electrical and Electronics Engineers (IEEE)  
Laws, Ordinances, Regulations, and Standards (LORS)  
Liquefied Natural Gas (LNG)  
Lower Explosive Limit (LEL)  
National Fire Protection Association (NFPA)  
Natural Gas Pipeline Safety Act of 1968 (NGPSA)  
Non-compliance reports (NGR)  
Normal Temperature and Pressure (NTP)  
Occupational Safety Health Administration (OSHA)  
Office of Pipeline Safety (OPS)  
Petition to Amend (PTA)  
Pipeline and Hazardous Materials Safety Administration (PHMSA)  
Piping and Instrumentation Diagrams (P&ID's)  
Pre-Fabricated Assemblies (PFA)  
Quality Assurance / Quality Control (QA/QC)  
Siting, Transmission and Environmental Protection Division (STEP)  
Storm Water Pollution Prevention Plan (SWPPP)  
Submittal Tracking Number (STN)  
Underwriters Laboratories (UL)  
Uninterruptible Power Supply (UPS)  
United States Code (USC)  
United States Department of Transportation (USDOT)

## **Exhibit 2 – Specific Project Directives**

## E2.1 Pre-Fabricated Assemblies (PFAs)

Pre-Fabricated Assemblies (PFAs) are unitized components of a power generating station that have been fabricated/assembled in their entirety, offsite, at a supplier's facility. These unitized assemblies are comprised of many individual components (structural, mechanical, and electrical) shipped to the power plant site as a unit, generally supported by a structural steel skid, or frame. Transportation is typically by truck or rail and lifted by a crane. Power plant PFAs typically include: power distribution control modules, combustion turbine enclosures, natural gas compressors, water treatment skids, circulating water pump skids, laboratories, etc.

For the purpose of DCBO plan check and review, PFAs fall into three different categories.

- **Buildings** - A PFA should be considered a building structure when personnel are likely to spend normal workdays performing various duties within the enclosure. In these cases, the PFA should be considered an occupied structure.
- **Equipment Enclosures** - An equipment enclosure is an un-occupied structure surrounding a piece of mechanical equipment for the purpose of weather protection or sound suppression. This would be a structure where personnel are not expected to perform daily operating or maintenance duties. This type of PFA should not be considered an occupied structure.
- **Non-Enclosed Equipment Skid** - An equipment skid is a PFA with an open structural frame that supports an assembly of mechanical devices such as a pumping unit and piping. This type of PFA should not be considered an occupied structure.

All PFAs, are by the nature typically of robust construction to facilitate transportation to the job site, should not require an exhaustive structural plan check and review by the DCBO. The anchorages and foundations should be reviewed for seismic compliance with the CBSC. A DCBO visual inspection should be performed to examine the PFA for damage during shipment and handling. During this inspection, the DCBO should verify the building basic construction/layout with supplied plans.

For PFAs that house large electrical components and systems (power distribution, uninterruptible power systems, motor control centers, etc.) the normal electrical inspections should be performed unless the entire enclosure is affixed with the appropriate UL Listed sticker, certifying that the PFA has been assembled and inspected as a unit per approved nationally recognized standards and guidelines.

For PFAs that supports process piping systems, the normal audit verification process for piping materials, inspections, and tests of the process piping system should be conducted by the DCBO.



For PFAs that are considered Buildings as defined above, the DCBO should perform the normal architectural review regarding ingress/egress, fire life safety compliance, as well as other reviews typically performed for offices, warehouses, shops, garages, and other occupied structures.

The project owner should provide the DCBO with the appropriate design drawings and QA/QC documentation that accompanies a PFA. This documentation will be used for field inspections to verify that the delivered PFA matches the provided drawings and manufacturer's QA/QC inspection documents. In most cases, this documentation should include (but not limited to) the following:

- Structural design drawings;
- Equipment (mechanical and electrical) layout plan and detail drawings;
- Unit performance specification (design basis) and intended use applications/limitation documentation;
- Mechanical component's manufacturer's data sheets;
- Electrical component's manufacturer's data sheets;
- Structural welding inspection non-destructive testing records;
- Hydrostatic testing records (for ASME piping components); and
- Electrical equipment testing records (breaker trips, wiring short circuit and insulation testing).

CBSC §1704.2.5.2, does not require special inspections of prefabricated elements when the work is done on the premises of a registered and approved fabricator. Such "approval" must be based upon review of the fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices by an approved special inspection agency. Upon fabrication completion, the approved fabricator must submit a certificate of compliance to the DCBO stating that the work was performed in accordance with the approved construction document.

If a DCBO has concerns regarding a specialized piece of equipment, those concerns should be directed to the Energy Commission's CPM for guidance.

## **E2.2 Use of Industry Code Recommended Practices**

The requirements of all applicable LORS will be enforced by the DCBO accordingly. Industry publications written as a recommended practice place the responsibility on the project owner to evaluate and incorporate the recommended practices as he determines appropriate for the plant. Typically, it is not within the authority of the DCBO to enforce recommended practices, with one exception. NFPA 850 - Recommended Practice for Electrical Generating Plants and High Voltage Direct Current Converter Stations is the fire protection guideline for power plants and is considered a standard regardless of its title. The CBSC and CFC do not specifically provide guidelines for power plant's and other similar facilities. To address the lack of topic specific guidelines, the CFC does consider "...compliance with applicable standards of the NFPA or other nationally recognized fire safety standards as are approved shall be deemed as prima facia

evidence of compliance with the intent of this code.” per Article 1, Section 101.3  
Subjects not Specifically Regulated by this Code.

In cases of system safety, the DCBO may require the project owner to provide written justification as to the rationale behind their decision not to follow the guidelines of a recommended practice.

## **E2.3 Ammonia Storage Tank Requirements – Anhydrous and Aqueous**

Ammonia is often present as a process chemical at a power plant to reduce air emissions. Ammonia can be present in either of two forms: anhydrous (NH<sub>3</sub>) and aqueous (NH<sub>4</sub>OH: aka - aqua ammonia or ammonium hydroxide – ammonia concentrations 10%-35%). However, aqueous ammonia is the common form of ammonia used in the combined cycle process.

These two forms of ammonia have different storage container requirements as mandated by state and federal regulations. Anhydrous ammonia must be stored in a ASME Code pressure vessel with an allowable working pressure of at least 265 psig. This is a requirement of California Code of Regulations, Title 8, Section 458, Design and Construction of NH<sub>3</sub> Tanks and U.S. Department of Labor, Occupational Safety & Health Administration, 29 CFR, Part 1910.111, Section 1910.111(c), Storage and Handling of Anhydrous Ammonia – Non-Refrigerated Storage Containers (has a minimum working pressure requirement of 250 psig).

Aqueous ammonia is normally stored in a steel tank with a design pressure of 25 psig. This design pressure exceeds the allowable design pressure limits for low-pressure tanks as defined by API 620 Design and Construction of Large, Welded, Low-Pressure Storage Tanks. Therefore, these low-pressure aqueous ammonia storage tanks must also be designed according to the requirements of the ASME Boiler and Pressure Vessel Code, Section VIII, Unfired Pressure Vessels.

However, the requirements of ANSI K61.1, Safety Requirements for the Storage & Handling of Anhydrous Ammonia, are only applicable for anhydrous ammonia tanks with design pressures of 250 psig or greater.

## **E2.4 Labeling and Listing – Material Approvals vs. Inspection for Compliance**

The project owner shall use only materials that are manufactured per recognized quality standards<sup>7</sup>. Through the Energy Commission's third party beneficiary language the DCBO is granted the authority to enforce the CBSC including the project owner's

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<sup>7</sup> Materials are considered to comply with this requirement if they are labeled / listed by a nationally recognized material testing laboratory or national standard.

QA/QC process of material compliance. The DCBO shall not impose an administrative process that requires the project owner to submit all material for approval prior to construction.

The DCBO shall use field inspections as the primary means to insure that materials meet minimum quality standards required by the LORS. The DCBO should not implement an administrative process that requires the project owner to submit individual material data sheets for DCBO review and approval. This is an excessive administrative requirement not approved by the CBSC.

Should the DCBO field inspections identify substantial amounts of non-conforming materials, inspections that are more stringent may be justified.

The power plant environment involves the use of certain equipment that is not supplied with labeling and listing as defined by the CBSC. For example, the combustion turbine generator and steam turbine generator are specialized machines that do not typically comply with the labeling and listing requirements defined by the CBSC. These are special machines manufactured by companies knowledgeable and experienced with their installation and operation. The DCBO should normally accept these machines on their own merit, without requiring the project owner to obtain special listings for these machines.

If a DCBO has concerns regarding a specialized piece of equipment, those concerns shall be communicated to the Energy Commission's CPM for direction.

## **E2.5 Natural Gas Pipeline Regulations and Compressor Building Design**

If a power plant project involves the design and construction of a natural gas pipeline, it will be required to comply with the Federal Regulations 49 CFR Part 192. The United States Department of Transportation (USDOT) provides oversight for the country's natural gas pipeline transportation. Their responsibilities are promulgated under Title 49, United States Code (USC) Chapter 601. The Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), administers the national regulatory program to ensure the safe transportation of gas and other hazardous materials by pipeline.

Two statutes provide the framework for the PHMSA. The Natural Gas Pipeline Safety Act of 1968 (NGPSA) as amended authorizes the USDOT to regulate pipeline transportation of natural (flammable, toxic, or corrosive) gas and other gases as well as the transportation and storage of liquefied natural gas (LNG). Similarly, the Hazardous Liquid Pipeline Safety Act of 1979 (HLPESA) as amended authorizes the USDOT to regulate pipeline transportation of hazardous liquids (crude oil, petroleum products, anhydrous ammonia, and carbon dioxide). Both of these pieces of legislation were re-codified as 49 USC Chapter 601.

The OPS shares portions of this responsibility with state agency partners and others at the federal, state, and local level. The State of California is certified under 49 USC Subtitle VIII, Chapter 601, §60105. The State has the authority to regulate intrastate

natural and other gas pipeline facilities. The California Public Utilities Commission (CPUC) is the agency authorized to oversee intrastate gas pipeline facilities, similar to those proposed by the applicant. (The California State Fire Marshal (CSFM) has jurisdiction for hazardous liquid pipelines.)

The federal pipeline regulations published in Title 49 of the Code of Federal Regulations (CFR), Parts 190 through 199. 49 CFR 192 specifically addresses natural and other gas pipelines. The CPUC also requires some additional design and operations requirements in California. Many of these pipeline regulations are performance standards. These regulations set the level of safety allowing the pipeline operator to use various technologies to achieve the desired result.

Should the pipeline be designed and constructed in such a way that the power plant's natural gas compressors are located outside the main power plant property boundaries, the compressor station may also be jurisdictional to 49 CFR Part 192.

49 CFR Part 192 dictates certain safety features that must be provided regardless of building code requirements. These safety features include the following items. Where these requirements are vague, additional Energy Commission clarification has been provided. It should be noted that for compliance with 49 CFR Part 192, the USDOT is the jurisdictional agency and not the Energy Commission. However, the Energy Commission has determined that these minimum requirements, as clarified herein, may be applied to any natural gas compressor buildings associated with a power plant under their jurisdiction, at the discretion of the Energy Commission, regardless of any USDOT jurisdiction.

1. The compressor building must be located to minimize the impact of fire on structures on adjacent property not under the control of the operator - 49 CFR Part 192.163(a).

The building must be constructed according to the setback guidelines established in the CBSC and CFC for the appropriate occupancy classification and CBSC Chapter 5 Section 503.

2. Space around the compressor building must be adequate to allow the free movement of firefighting equipment - 49 CFR Part 192.163(a).

The building must be constructed according to the setback guidelines established in the CBSC and CFC for the appropriate occupancy classification and CBSC Chapter 5 Section 503. Local ordinances regarding fire equipment turning radii, dead end/turn around requirements will also apply to the spacing requirements reviewed by the DCBO.

3. Compressor buildings shall be constructed of noncombustible materials (where piping is greater than 2-inches in nominal diameter) - 49 CFR Part 192.163(b).

The building structure should be constructed according to the requirements of the CBSC for the building occupancy type (either F-1 or H-2) and acceptable

noncombustible materials (building construction Types I or II) as defined by the CBSC Chapters 6 and 7.

4. Any main compressor building must have at least two unobstructed exits (per floor) with panic hardware on the doors that open outwardly - 49 CFR Part 192.163(c).

The building should have these two exits provided per CBSC Chapter 10. The intent is that a person must be able to escape immediately from the building by proceeding in a direct path to a door that will swing open in the direction of egress (outward). These doorways should not have any objects, stationary, or moveable, placed in front of the doorway that would slow a person's egress from the building. These doors should be located in the building so as to provide alternative escape routes should one direction not be possible due to fire or other reason. The hardware on the door should be of the "panic bar" type, opened without a key, from the inside of the building without having to significantly slow the person's speed of egress.

5. All escape routes from the buildings must be unobstructed - 49 CFR Part 192.163(c).

The escape routes from the buildings should be designed and reviewed according to the requirements of CBSC Chapter 10 - Means of Egress.

6. All fenced areas around compressor buildings must have two exits providing escape to a place of safety - 49 CFR Part 192.163(d).

Similarly, to numbers 4 and 5 above, a person's speed of egress should not be significantly slowed by the path of egress or the type of gate hardware installed at the site. No stationary or moveable objects should be installed/stored/placed in this pathway.

7. All fenced areas less than 200 feet from the compressor building must have gates that open outwardly, and when occupied, must be capable of being opened without a key - 49 CFR Part 192.163(d).

Similarly to 4 and 5 above, the fence gate should remain unlocked while occupied (egress does not require a key) with latching hardware that does not significantly slow the egress of persons leaving the area.

8. All electrical equipment and wiring must conform to NFPA 70 - 49 CFR Part 192.163(e).

This requirement needs no further explanation.

9. The station must be equipped with an Emergency Shut Down System (ESD) that: isolates the station piping from the incoming and outgoing pipeline, shuts down any gas fired equipment, blows down the station piping to a safe location, and operated from at least two sites outside the gas area of the station near emergency egress gates and not more than 500 feet from the limits of the compressor station. This ESD must not shut down emergency operating power for safety systems and emergency egress lighting - 49 CFR Part 192.167(a).

The compressor station must be equipped with manual push button stations (e.g., 2 minimum red mushroom head - maintain position push buttons that must be reset at the site) that initiate an emergency shut-down of the station's compressor(s). This emergency shut-down should be wired directly into the compressor motor control/prime mover control circuits and should not rely on any outside control system to "pass" the compressor shut-down control signal. For example, for an electrical motor driven compressor, the ESD should be wired directly into the motor control center in such a way that the power to the motor starter coil is interrupted. The location of the ESD must not be situated in such a way as to allow the operation of the device by unauthorized individuals.

This ESD should also initiate the actuation of compressor station power operated valves that will automatically close a single station inlet valve and a single station outlet valve. This action will isolate the compressor station piping from any outside supply of natural gas. The ESD should also actuate a power operated valve that vents (blows down) all the compressor station piping to atmosphere at a location that is free from accidental ignition sources. This action will reduce the amount of gas available for a release inside the building.

The term "power actuated valves" includes a family of actuators that can be powered by electrical, pneumatic, or hydraulic power sources. The actuation of these power-operated valves should be "fail safe". The term "fail safe" is herein referred to as the ability to close upon receipt of an ESD signal regardless of any loss of primary actuation power.

The ESD must not de-energize any electrical circuits used for any station lighting for emergency egress assistance, equipment protective devices, or the station control systems. For compressor stations monitored and controlled from a remote control room, the remote control system should also possess the capabilities to "simulate" a local ESD.

The compressor station should be equipped with an Uninterruptible Power Supply (UPS) that is capable of operating critical operating and safety devices during power failures (emergency electrical power). This UPS should be capable of powering egress lighting for a period of time not less than that required by the CBSC Chapter 10. The duration of operation of operationally critical devices supplied by this UPS should be at the discretion of the owner but should be of sufficient duration to operate the station isolation valves and blow down valves to a "safe" position.

The DCBO is to review the P&ID for the compressor station as well as the control wiring to determine that all safety features have been incorporated into the design of the station electrical and mechanical controls.

10. The station piping must be protected by a pressure relief system or other suitable protective devices of sufficient capacity and sensitivity to ensure that the maximum operating pressure is not exceeded by more than 10%. Each vent line that exhausts

gas from a pressure relief valve of a compressor station must extend to a location where the gas may be discharged without hazard - 49 CFR Part 192.169(a) and (b).

The compressor station piping must be designed so that pressures cannot exceed 110% of maximum operating pressure per applicable industry codes. This pressure control design should consider high pressure conditions that may occur during normal flowing conditions and during idle times. This may require the use of large pressure relief valves sized to accommodate the full flow of the station (in the event of an inadvertent closure of a downstream block valve) as well as smaller valves that relieve pressure trapped between closed valves (thermal relief valves) in the station piping.

The DCBO is to review the Piping and Instrumentation Diagrams (P&ID's) for the compressor station to determine that adequate over-pressure protection has been provided in the station piping and control designs.

11. Each compressor station must have adequate fire protection facilities. If fire pumps are part of these facilities, their operation must not be affected by the emergency shut-down system - 49 CFR Part 192.171(a).

The compressor station must be designed and built with fire suppression equipment that could reasonably be expected to extinguish a natural gas fire within the building due to equipment failure or other accidental release. The sizing of fire suppression systems should follow the guidelines of CBSC Chapter 9, the California Fire Code, NFPA 13 Automatic Sprinkler Systems Handbook, NFPA 58 Liquefied Petroleum Gas Code, and NFPA 59 Utility LP - Gas Plant Code (NFPA 58 and 59 required by 49 CFR Part 192.11).

12. Each compressor station prime mover other than an electric motor, must have automatic shut-downs to protect against exceeding the maximum safe speed of the prime mover or compressor - 49 CFR Part 192.171(b).

This is an equipment protective safety system that is normally included in the "compressor control system package". This is not a building code issue. Its inclusion in the motor controls should be verified by the DCBO via review of the P&ID's. An engineering review of this control feature is the responsibility of the owner/engineer, not the DCBO.

13. Each compressor unit within a compressor station must have a shut-down, or alarm device, that operates in the event of inadequate cooling or lubrication of the unit - 49 CFR Part 192.171(c).

This is an equipment protective safety system that is usually included in the compressor control system package. This is not a building code issue but, its inclusion in the motor controls should be verified by the DCBO via review of the P&ID's. An engineering review of this control feature is the responsibility of the owner/engineer, not the DCBO.

14. Each natural gas powered prime mover (engine) that operates with pressure injection must be equipped so that stoppage of the engine automatically shuts off the

fuel and vents the engine distribution manifold. The muffler of a gas engine must have vent slots, or holes, in the baffles of each compartment to prevent gas from being trapped in the muffler - 49 CFR Part 192.171(d) and (e).

This is an equipment protective safety system that is usually included in the "compressor control system package". This is not a building code issue but, it's inclusion in the motor controls should be verified by the DCBO via review of the P&ID's. An engineering review of this control feature is the responsibility of the owner/engineer, not the DCBO.

The venting of the engine fuel manifold should be piped to the station blow down piping and should be connected to that piping downstream of the ESD actuated emergency blow down valve specified in Item 9 above.

15. Each compressor station building must be ventilated to ensure that employees are not endangered by the accumulation of gas in rooms, sumps, attics, pits, or other enclosed places - 49 CFR Part 192.173

Natural gas has very little health hazard potential to humans. It is not an irritant, does not absorb through the skin, and is not a carcinogen. The primary risk to humans is at high concentrations where it may cause dizziness, headache, lack of muscular coordination, diminished mental alertness, cyanosis, narcosis, dyspnea, or death by asphyxiation. At lower concentrations, the risk to humans is from fire/explosion. The buildings, regardless of occupancy class determined by the DCBO, should be equipped with mechanical ventilation that minimizes the risk of gas accumulations. The ventilation system should be designed to maintain gas concentrations below 20% Lower Explosive Limit (LEL).

The ventilation should be activated while persons are occupying the building for maintenance purposes by integration with inside lighting switches (or other equivalent means). The ventilation should be sized to produce six air changes per hour in the building. It should also be activated when any gas is detected over concentrations of 20% LEL, whether or not the lights are in the "on" position. The ventilation should be installed to exhaust from a point high in the building since natural gas is lighter than air and will float to the roof. The inlet vent (louvered panel) should be situated on the opposite side of the building to create a cross flow of air inside the building. If practical, the air flow path should be parallel to the axis of the compressor units to reduce obstructions in the airflow path. In order to control this system, continuous air monitoring within the building is required.

Compressor buildings are considered equipment weather/sound enclosures. These should not be used as occupied spaces for normal operations and/or work spaces.

The DCBO should evaluate the proposed ventilation system according to a Group H Occupancy (CBSC Section 12.02.3) as a Product-Conveying Ventilation System as defined by California Mechanical Code Chapter 5 "Exhaust Systems", Section 505.0.



All electrical components within this exhaust system should be non-sparking and listed for Class I, Division 2 service.

16. Natural gas compressor station buildings must be equipped with fixed gas detection and alarm systems – 49 CFR Part 192.736.

The natural gas compressor building should be equipped with gas detection devices that can detect concentrations of gas at, or below, 20% LEL. These detection devices should be situated, in sufficient numbers (at least one per compressor unit) to detect a release from the compressor itself or from a flanged connection as quickly as possible. The building should also have an additional gas detector near the roof peak. These devices should be analog devices that give continuous gas readings (via facility monitoring and control system) back to the facility control room. Any device that detects gas above 10% LEL, should activate the ventilation system as described in 49 CFR Part 192 Safety Equipment Requirement 15 above, whether or not the building is occupied.

The detection of any gas concentrations above 10% LEL should initiate an alarm within the facility central control room. Visual alarm signal lights should be provided outside and inside the building that flash when concentrations of gas exceed 25% LEL. Signs should be provided adjacent to these alarm lights that say "Gas Detection Alarm" in white letters on a red background.

This alarm should also activate the compressor station ESD after a period of time and before the concentration of gas exceeds 50% LEL.

The DCBO should review the P&ID's to insure that these devices have been included in the station design and integrated into the control system.

## **E2.6 Construction Oversight – Means and Methods vs. Code Compliance**

It is the responsibility of the project owner to construct the power plant project according to the COCs, the DCBO approved plans and specifications, and all LORS. In many ways, the means and methods utilized by the project owner are his to select, provided they do not hamper the DCBO's progress inspection of the work (e.g., free access to the work in progress), nor jeopardize worker/inspector safety.

It is not within the authority of the DCBO to dictate the construction means and methods. It is within the DCBO's authority to insure the work performed is in accordance with approved drawings and specifications. The DCBO should focus on the end product of the work and not dictate how this is accomplished.

Should the DCBO observe conditions, that in his opinion, may affect the final work product, he may request additional inspections prior to commencement of subsequent stages of work. For example, if a foundation's sub-grade compaction appears to be compromised by rain, vehicular traffic, or other disturbances, the DCBO is within his authority to request special inspection of that sub-grade prior to any concrete pours. There would be no other way to verify the quality of work otherwise.

There are certain construction techniques that may require DCBO review. For example, overhead formwork for reinforced concrete pours, false work, and engineered shoring for excavations greater than 20 feet deep require design by a licensed civil or structural engineer. These should be submitted to the DCBO for review and approval prior to construction.

If a DCBO has concerns, regarding an ongoing construction practice, those concerns should be referred to the Energy Commission's CPM for direction.

## **E2.7 Professional Engineer (PE) Stamp Requirements for Out of State PFAs and Process Equipment**

In almost all situations, any "engineered" components used within an Energy Commission jurisdictional power plant must be accompanied by design drawings prepared by an engineer, duly licensed to practice Civil, Mechanical, or Electrical engineering within the State of California. There may be limited situations when PFAs, or other minor components used within an Energy Commission jurisdictional plant, can be accepted with a non-California licensed professional engineer stamped set of design drawings and supporting calculations. It should be noted that the Energy Commission does not restrict the project owner from utilizing PFAs that are designed and constructed outside the State of California. It should also be noted that the use of any PFAs does not exempt the project owner from compliance with the LORS.

Only non-enclosed equipment skid PFAs, which comply with all of the following requirements, may be utilized without California PE stamped drawings and supporting calculations:

- The PFA is process system component and not a building;
- The PFA does not include a shade cover, awning, or other structure over the equipment;
- The PFA does not include a stationary, track mounted, or otherwise supported crane or hoist;
- The PFA does not include personnel access platforms greater than 5 feet above the PFA's installed surrounding finished access level or adjacent grade;
- The PFA does not include chemical storage facilities;
- The PFA does not include fixed fire protection equipment; and
- The PFA does not include fixed area lighting equipment.

However, all PFAs, including those that are not required to be accompanied by California PE stamped drawings and supporting calculations, should have documentation supporting their design basis and QA/QC procedures and inspections. When a PFA is a non-enclosed equipment skid, it may be classified in one of two ways.

First, the PFA may be a standard assembly of components the supplier fabricates into a single unit for sale/use anywhere in the United States or abroad. Second, the PFA may be a custom manufactured assembly of components that is unique to the power plant to which it is being incorporated. The DCBO may accept the stamp of an out of state engineer or an appropriate label or listing as a QA/QC assurance the PFA was designed and constructed to acceptable standards. Regardless of the type of PFA, the PFAs QA/QC documents should be reviewed as a part of the overall process system QA/QC audit.

If a DCBO has concerns, regarding a specialized piece of equipment, those concerns should be referred to the Energy Commission's CPM for direction.

## **E2.8 Generating Plant Start-Up Responsibilities of DCBO's**

The DCBO has the authority to enforce the CBSC and to perform plan reviews and construction inspections according to the authority delegated by the Energy Commission. It is not the Energy Commission's intent for the DCBO to oversee and approve the mechanical start-up operation of the power plant. Once the physical plant facilities have been constructed and deemed materially complete, the DCBO has no further authority to insure that the plant operates to any performance standards unless specifically identified as a compliance task within the COC.

## **E2.9 Practical vs. Hard Line Approach to Code Interpretation**

It is the goal of the Energy Commission that all power plant designed and constructed under their jurisdiction is done so in a manner that complies with all LORS. The DCBO should be diligent in his efforts during the design review and construction inspection process to insure that this goal is achieved. However, it is not the desire of the Energy Commission to provide unreasonable interpretations of the text of the LORS, nor to interfere with any design and construction detail options available to the project owner, when those options are not a LORS requirement. However, the DCBO does have the authority to review these options to insure that they do not inadvertently pose a risk to personnel, property, or the public.

Construction details described in the project owner's approved construction specifications, that are not LORS jurisdictional requirements, that are observed during construction inspections to deviate from the project owner's specification but still comply with applicable LORS and do not jeopardize the design in any way, should be communicated to the project owner by the DCBO. However, the DCBO has no further enforcement relative to these project owner options. It is the responsibility of the project owner to insure their construction firm builds the plant according to these optional specifications and all applicable LORS. The DCBO is tasked with insuring compliance with the LORS only; if the project owner's requirements exceed the minimum requirements posed by the applicable LORS, the DCBO should note the deviation, but not reject the work.

For example, a project owner is required to store liquids (hazardous or combustible) in a container whose material is compatible with the liquid stored (NFPA 30, Chapter 4). Unlined concrete is an acceptable tank construction material (NFPA 30 Chapter 4

Section 4.2.2 Materials of Construction) provided the liquid stored has an API gravity greater than 40 degrees. Should the project owner decide to coat the inside of this concrete tank, the coating must be compatible with the liquid stored as well. This coating specification will need to be submitted with the tank to demonstrate to the DCBO that the coating is compatible with the liquid stored. The CBSC does not require any coating of a secondary spill containment structure, only that it be liquid tight (CFC Section 27 Storage, Paragraph 2704.2.2.1 Containment, and Draining Methods). If the project owner so desires to coat that secondary containment structure, he may do so. However, if he does select to coat the secondary containment structure, then the DCBO has the authority to enforce the CBSC to verify that the material stored is compatible (i.e. is not reactive, etc.) with the secondary containment coating. The DCBO should not dictate the type of coating to be used. Neither should the DCBO reject a coating that is different from specified (potentially an availability issue negotiated between construction contractor and owner) unless the coating material is not compatible with the stored material.

If a DCBO has concerns regarding a code interpretation or a response from a project owner, those concerns should be referred to the Energy Commission's CPM for direction.

## **E2.10 Fire Suppression CFC Compliance – Special Equipment Protection**

Much of the fire suppression systems within a power plant are for the extinguishment of process equipment fires and not occupied buildings. NFPA 850 - Recommended Practice for Electrical Generating Plants and High Voltage Direct Current Converter Stations, NFPA 37 Standard for Installation and Use of Stationary Combustion Engines and Gas Turbines, and NFPA 101 Life Safety Code have been developed to deal with the special fire protection and life safety needs of the power generating plant environment. Even though NFPA 850 is titled a recommended practice, project owners should provide justifications through alternative means when not complying with these recommended practice guidelines as would be the case for alternative methods in the CBSC.

The turbine enclosure's fire protection equipment is custom designed to the specific application and is engineered and constructed to protect the equipment from fire damage as well as water damage. These fire protection systems are not specifically addressed in the CFC; however, the CFC does consider "....compliance with applicable standards of the National Fire Protection Association or other nationally recognized fire safety standards as are approved shall be deemed as prima facie evidence of compliance with the intent of this code." per Article 1, Section 101.3 Subjects not Specifically Regulated by this Code.

The DCBO should understand the special nature of these engineered systems and not attempt to "fit" them to the language of the CFC when the above NFPA recommended practices, codes, and standards are followed, thereby meeting the intent of the CFC.

Occupied buildings, offices, warehouses, control rooms, laboratories, etc. should be designed and constructed in accordance with the CFC.

If a DCBO has concerns, regarding a code interpretation or a response from a project owner, those concerns should be referred to the Energy Commission's CPM for direction.

### **E2.11 PE Requirements for Plan Reviewers and DCBO**

Per a legal opinion dated August 26, 1994, from the California Board of Registration for Professional Engineers, "The "plan checking" of engineering plans and documents which are submitted to local public agencies, and required to be signed and stamped by professional engineers pursuant to the Professional Engineers Act, is required to be conducted under the responsible charge of a registered professional engineer. A plan checking review which results in a final professional work product or report would necessitate the use of engineering initiative, skill, and independent judgment. Since plan checking involves an evaluation of professional work product whose preparation requires engineering initiative, skill, and independent judgment, it follows that the review of such work product must be done under the responsible charge of a professional engineer as defined by the Professional Engineers Act." The DCBO shall be certified as a building official by a recognized association, such as the Council of American Building Officials or the International Code Council.

The DCBO should be mindful that a California Registered Fire Protection Engineer (title act only through the Licensing Board) and other titled plan reviewers are considered professional engineers in California but are not qualified or licensed to practice civil, electrical, or mechanical engineering under this title in California per the Professional Engineers Act. California Code of Regulations, Title 16, Division 5, Section 404 Definitions paragraph (m) states *"Fire protection engineering is that branch of professional engineering which requires such education and experience as is necessary to understand the engineering problems relating to the safeguarding of life and property from fire and fire-related hazards; and requires the ability to apply this knowledge to the identification evaluation, correction, or prevention of present or potential fire and fire related panic hazards in buildings, groups of buildings, or communities, and to recommend the arrangement and use of fire resistant building materials and fire detection and extinguishing systems, devices, and apparatus in order to protect life and property. The above definition of fire protection engineering shall not be construed to permit the practice of civil, electrical, or mechanical engineering."* The reviews performed by a Registered Fire Protection Engineer and other title act only registrations should be performed under the responsible charge/supervision of a California Registered Professional Civil, Mechanical, or Electrical Engineer, as is appropriate for the review material.

### **E2.12 Qualification of Steel Fabricators Prior to Start of Work**

The DCBO should assist the project owner by communicating to them early in the procurement/design process that the fabrication of structural steel involves the continuous inspection of that fabrication according to the requirements set forth in

CBSC Chapter 17, Section 1701 Special Inspection. As an alternative to this continuous inspection, the project owner may opt to obtain an "approved fabricator" certification from the DCBO (Section 1701.7 Approved Fabricators). However, it should be noted that the project owner does not have any authority to certify any steel fabricator as an approved fabricator; this authority resides with the DCBO.

The DCBO should communicate to the project owner that there have been significant issues with other project owner's beginning their procurement of major steel structural components (offsite fabrication of the Heat Recovery Steam Generator (HRSG) for example) without obtaining the required DCBO approvals of the fabricator or without continuous special inspections during fabrication. The majority of the issues have involved the discovery of structural weld failures late in the fabrication process, by either the project owner or the DCBO. These discoveries have resulted in costly rework and scheduling delays.

### **E2.13 Process Piping Hydrostatic Testing**

The appropriate ASME piping code defines the hydrostatic testing requirements for all process piping. Not all ASME Codes have the same hydrostatic testing requirements. The DCBO should not require the project owner to test process piping systems according to the requirements of the CPC or CMC. In the case of natural gas pipeline systems, hydrostatic or pneumatic testing of these pipelines according to the requirements of the CPC would not satisfy the requirements of the ASME B31.8 or USDOT 49 CFR Part 192 for hydrostatic testing.

### **E2.14 Chemical Spacing – Setbacks within Plant**

The CBSC is very specific regarding the spacing of adjacent buildings and equipment, including distances to property boundaries when thresholds of exempted stored quantities of chemicals are exceeded. The power plant property boundary is just that – a property boundary. The DCBO should not artificially place "dummy" property boundaries within the plant that effectively double the required spacing between adjacent buildings and equipment. When two adjoining chemical hazard areas are required by the CBSC to have different setbacks to adjoining structures/areas, the greater of the two should control the spacing; these distances are not intended to be additive.

The requirements of Chapter 5, Section 503.3 should not be ignored when applicable in determining the required wall and opening protection for buildings.

### **E2.15 Process Piping Material QA/QC – ASME Code Requirements**

The material QA/QC process for the ASME codes is somewhat more stringent than the CBSC. The material may conform to any number of pipe / fittings material specifications. This is typically demonstrated with written mill certifications (mill cert) that accompany the material. These mill cert documents provide data on specific piping material, obtained through testing, that substantiate compliance with a particular

specification. This includes the composition of the material and its tested strength. Labeling of the pipe must be linked in some manner to a lot or "mill run" identification number, which in turn corresponds with the identification number on the mill cert. The labeling of the pipe is often simply a painted identification on the inside<sup>8</sup> or outside of the pipe joint. This labeling typically includes pipe specification, diameter, wall thickness, mill identification number, etc.

When a joint of pipe is cut into smaller pieces for field fabrication, the labeling is typically transferred (if not to be immediately used in fabrication) to the unmarked segments of pipe so that the proper identity of the material can be maintained. This is because the visual properties of low strength steel are the same as a high strength pipe or pipe with differing metallurgy. Pipe of one specification used in the incorrect service can have disastrous consequences.

This material tracking process must be maintained by the project and periodically audited by the DCBO. It is the intent of the Energy Commission that the DCBO insure that the project owner has a process in place to verify and track material from procurement to fabrication. The DCBO auditing of this process should not include a requirement that the project provide submittals to the DCBO for review and approve prior to the start of fabrication.

The material tracking process for fittings is somewhat less involved. The fittings are typically stamped individually by the manufacturer, as is common practice and are used as individual units.

## **E2.16 Turbines, Generators, etc. – Equipment Enclosures**

A natural gas turbine / generator is often assembled as a PFA. They are typically fully enclosed weatherproof housings for equipment environmental protection and for noise abatement. The DCBO shall refer to E4.1 regarding PFA guidance. These are not normally occupied spaces and shall be considered equipment enclosures. They often contain internal lubrication oil tanks mounted within a sub-floor structure. Because of the unique operating environment, NFPA 850 – Recommended Practice for Fire Protection for Electrical Generating Plants and High Voltage Direct Current Converter Station should be the primary fire-protection guidance document for design and DCBO review.

Should the PFA containing the combustion turbine be a component of a larger modular structure, a more stringent DCBO structural review may be warranted. For example:

- Where the PFA is designed as the base structural module supporting other structures / modules above the enclosure;

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<sup>8</sup> When pipe is externally coated by a third party coating mill, it is extremely important that the coating mill transfer the pipe identification marks typically painted on the outside of the pipe to the inside of the pipe prior to the application of the external coating. This transfer of identification markings is the only way to verify material specifications during the construction/fabrication process. The coating mill must have a QA/QC process in place to maintain the identity of the pipe.

- Where the PFA is the primary supporting structure for a large concentrated mass where seismic loads would impose large additional loads on the PFA; or
- Where the PFA is designed to support overhead worker access walkways used on a daily basis for access to other equipment in the plant.

This does not change the NFPA 850 basis of review for fire protection.

## **E2.17 DCBO and Local Fire Authority Having Response Jurisdiction – Interaction**

There may be instances where the local fire department wishes to assume the authority to enforce the CFC for the project's fire protection system design review, inspection, and approval. In these instances, the Energy Commission desires that the DCBO maintain complete oversight and authority for all design reviews, inspections, and approvals, regardless of the entity performing those reviews, inspections, and approvals.

The DCBO should intercede when the project owner is not supplying timely submittals to the local agency.

The DCBO should not allow any systems, or portions of the plant, to operate that do not have adequate fire protection systems in place (or an approved equivalent protection) that have been reviewed, inspected, tested and approved by the proper authorities.

In cases where the local fire authority lacks expertise in large plant fire protection systems, the DCBO should assist with the review and inspection work to insure that the fire protection systems comply with applicable LORS. In some cases, this may require the DCBO to perform independent design reviews and inspections.

## **E2.18 ADA vs. Cal/OSHA / Federal OSHA Handrails and Platforms**

The process areas within a combined cycle power plant are classified as an industrial process plant. These areas are not accessible to the public. Employees with disabilities do not occupy these areas. Personnel access and protection, in regards to stairways, platforms, mechanical guards, handrails, etc. should comply with the requirements of OSHA and Cal/OSHA. These facilities should not be reviewed from the standpoint of compliance with the CBSC Americans with Disabilities Act (ADA) requirements.

When a power plant include offices and warehouses, these buildings should be designed to accommodate individuals with certain physical limitations. As a result, these facilities should be designed and reviewed for compliance with the CBSC ADA requirements.



## **E2.19 Contained Volumes of Flammable Gases – CSFM Code Interpretation**

This guidance was developed for an earlier version of the CBSC and CFC; however, this interpretation still has relevance.

CBSC Table 3-D (nor the text of the CBSC) and CFC Table 8001.15-A does not indicate whether the volume of gas (for occupancy class determination) is to be measured at normal temperature and pressure (NTP - 70°F and 14.7 psia). However, CFC Table 8001.15-C does indicate, in the header of the gas storage column, that the measured volume listed is at NTP conditions. This is similarly done in Table 8001.15-D. The omission of NTP conditions in these tables appears to be an editorial error.

The California State Fire Marshal (CSFM) is agency having jurisdiction for the CFC. The Energy Commission contacted the CSFM to render a code interpretation. They have provided the following code interpretation:

***“The volumes in the tables have always been treated as measured at NTP. If you look at Tables 80.402-A and 80.402-B in the 1991 UFC, the heading in these tables indicates that the volume is measured at NTP. In the 1994 UFC, the two indoor tables were moved from the UBC into the UFC and the two outdoor tables were reformatted into the 1994 UFC. Apparently, the text was erroneously modified.”***

## **E2.20 Tank and Secondary Containment Coating**

A project owner is required to store liquids (hazardous or combustible) in a container whose material is compatible with the liquid stored (CFC Article 79, Section 7902.8.2.6). The DCBO should be mindful of the following provisions within the CBSC:

- Unlined concrete is acceptable (CFC Article 79, Section 7902.1.8.2.8) provided the liquid stored has an API gravity greater than 40 degrees.
- Should the project owner decide to coat the inside of an unlined concrete tank, the coating must be compatible with the liquid stored as well. This coating can be a combustible material as provided by CFC Article 79, Section 7902.1.8.2.9.
- The CFC does not require the coating of a secondary spill containment structure; it only requires that the secondary spill containment structure be liquid tight (CFC Article 80, Section 8003.1.3.3). If the project owner desires to coat the secondary containment structure, he may do so. However, if he elects to coat the secondary containment structure, then the coating must be compatible with the material being stored.

Secondary containment structures are not long-term storage vessels. They are designed to contain spills that are immediately dealt with and are not left for extended periods of time. As stated in the CFC Article 80, Section 8003.1.3, these secondary containment structures need only be liquid tight. If the project owner chooses to make these more soak/stain resistant, that is his option but the material must be compatible with the stored liquid.

If a DCBO has concerns, regarding a code interpretation or a response from a project owner, those concerns should be referred to the Energy Commission's CPM for direction.

## **E2.21 Temporary Facilities**

CBSC Volume 1 of 2, Section 202 defines Temporary to mean, ***“buildings and facilities intended for use at one location for not more than one year and seats intended for use at one location for not more than 90 days.”*** CBSC Volume 2 of 2, Section 107 states ***“The building official is authorized to issue a permit for temporary structures and temporary uses. Such permits shall be limited as to time of service, but shall not be permitted for more than 180 days. The building official is authorized to grant extensions for demonstrated cause.”*** Installations of pre-fabricated office complexes will typically be on-site for more than one year and are considered permanent. Tents, canopies, membrane structures are all governed structures by the CBSC. Ingress, egress, fire protection, electrical and other code requirements apply.

## **E2.22 Consistent Application of Importance Factors**

Some DCBO's have required designers to utilize a blanket importance factor within a power plant regardless of the essential nature of the individual building and non-building structures. Buildings/structures that are essential to the operation of the power plant have an Occupancy Category IV<sup>9</sup> thus a higher importance factor. Warehouses, garages, offices, and other similar structures that are not essential to the operation do not warrant Occupancy Category IV and should be Occupancy Category III.

ASCE 7-05, Chapter 11 – Seismic Design Criteria, Table 11.5-1 – Importance Factors defines a building's seismic Importance Factor ( $I_p$ ) based on Occupancy Category. ASCE 7-05, Chapter 6 – Wind Loads, Table 6-1 – Importance Factor, I (Wind Loads) defines a building's wind loading Importance Factor ( $I$ ) based on Occupancy Category.

Category III – Seismic  $I_p = 1.25$

Category III – Wind  $I = 1.15$

Category IV – Seismic  $I_p = 1.5$

Category IV – Wind  $I = 1.15$

ASCE 7-05, Chapter 13 – Seismic Design Requirements for Nonstructural Component, (equipment) Section 13.1.3 – Component Importance Factor defines the seismic Importance Factor ( $I_p$ ) = 1.5 based on three factors:

- If the equipment functions for life-safety purposes after an earthquake,
- If the equipment contains hazardous materials, or

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<sup>9</sup> CBSC Table 1604.5 and ASCE 7-05 Table 1-1 define occupancy Category of building.

- If the equipment is in, or attached to, an Occupancy Category IV structure.

Otherwise, equipment Importance Factor shall be  $I_p = 1.0$ .

A project owner may elect to use of importance factors greater than the minimum values presented herein, provided they do not jeopardize the seismic performance of the structural system. In cases where the project owner(s) believes the required minimum values may jeopardize the seismic performance of a structural system, they should present their position to the DCBO.

## **E2.23 Wind Loading of Solar Collecting Devices**

The CBSC provides design guidelines for buildings and non-building structures within the State. The CBSC uses a supplemental document published by the American Society of Civil Engineers for determining wind-loading forces on buildings and non-building structures. This document is ASCE 7-05 – Minimum Design Loads for Buildings and Other Structures.

The CBSC was never intended to provide design guidance for machines, which include the solar energy collecting devices (electro-mechanical devices), proposed in all of the solar energy generating power plants. This is comparable to other similar equipment (radar antenna, satellite earth stations, etc.) found in other industrial building environments whose machine design is not a CBSC jurisdictional process. The solar collectors are machines that rotate with the movement of the sun to provide continuous and consistent alignment of the solar collection mirrors with the sun. These machines are comprised of a number of individual mirrored panels mounted on a support frame. Although the mirrors have a supporting frame, that frame (and aiming drive mechanism) itself is simply part of that machine and should not be considered a building or non-building structure jurisdictional to the CBSC. Typically, these electro-mechanical machines are designed and built by third-party suppliers. They machines are designed to be assembled and anchored in the field to supporting platforms/foundations designed and installed by the project owner. The foundations, anchorages, and/or machine platforms (defined by the CBSC in Section 502.1) are jurisdictional to the CBSC.

The design of machines (turbines, steam generators, pressure vessels, piping systems, etc.) utilized in power plants are not defined with the CBSC structural requirements. The equipment supports and anchorages of these machines are CBSC jurisdictional. Neither the CBSC, nor ASCE 7-05, was written to establish design standards for these machines. It is not the intent of the CBSC to set machine reliability standards for machines either. These issues are/may be the subject of other industrial codes and practices outside the CBSC.

The project teams should engineer the foundations / equipment supports using sound engineering judgment. Wind loading on the solar collectors should be part of the engineering effort since those forces will be transferred to the equipment supports and anchorages. The DCBO should review the methods employed to insure some sound method are employed for determining the wind loading. The DCBO should accept the use the ASCE Method 1 – Simplified Procedure to determine this loading. This seems the most appropriate method given that the height of the solar collectors will not exceed

the threshold value of 60 feet for this method as stated in Section 6.4 of ASCE 7-05. Other more sophisticated methods (Method 2 and 3 in ASCE 7-05) are acceptable if the engineer elects to use those procedures but should not be mandated by the DCBO.

In addition to the wind loading requirements of ASCE 7-05, it is not appropriate to require the mirrors within the solar collectors to be provided with impact resistant material as required for buildings in Section 6.5.9.3 (and others) with ASCE 7-05. This is a machine reliability issue for the project and not the CBSC.

The presence of solar energy projects (pilot projects in California) in California and other states do not indicate that an increased design concerns exist for these power generating plants. The lack of widespread concern from notable failures, regarding the safe operation of these plants, does not indicate the need for extraordinary design measures to be taken.

## **E2.24 Solar Electric Generating Stations – Occupancy Category**

Part of the requirements of California Building Code, Section 16 – Structural Design includes the assignment of an occupancy category. These categories are defined within Table 1604.5 – Occupancy Category of Buildings and Other Structures. As the category number increases, the structural design requirements get more complex. Occupancy categories define the nature of the use of a building or non-building structure. Category III defines the use of an occupancy to include power generating stations. Category IV defines the nature of use of an occupancy to include power generating stations that are required as emergency backup facilities for other Occupancy Category IV structures. These other Category IV structures include hospitals, fire and police stations, etc.

Clearly, the nature of the solar electric generating stations cannot be considered primary or emergency backup for other Occupancy Category IV structures with their limitation of generating power during daylight hours. Solar electric generating stations are intended to provide a supplemental source of electrical power to the existing electrical power grid in California. They are not intended as the primary source of power for hospitals, fire and police departments and should not be as Occupancy Category IV.

DCBO's are not to impose more restrictive occupancy category requirements on solar electric generating stations than is warranted. DCBO's should conduct their plan review for solar electric generating stations as Occupancy Category III classifications. This directly relates to the ASCE-7.05 defined importance factors for wind and seismic design

**ATTACHMENT 7**  
**Client References**  
**RFQ-XX-XXX**

For the Firm and each subcontractor, provide a minimum of 3 references who can independently assess that Firm's or subcontractor's effectiveness in previously delivering similar programs or responsibilities, use additional pages as needed.

**Reference #1**

|                                                                            |  |
|----------------------------------------------------------------------------|--|
| Name of Organization                                                       |  |
| Address                                                                    |  |
| Contact Name                                                               |  |
| Contact Title                                                              |  |
| Contact Phone Number                                                       |  |
| Describe the services and products your firm provided to the organization. |  |

# **ATTACHMENT 8**

## **CERTIFICATION REGARDING CONFLICTS OF INTEREST**

California Energy Commission Delegated Chief Building Officials

### **Purpose of Certification**

Firms that submit a Statement of Qualifications for and are selected as the Delegated Chief Building Official ("DCBO") for Energy Commission power plant projects must complete this certification regarding conflicts of interest.

The Firm is responsible for having assigned personnel, employees, and subcontractors who perform work under Tasks X-X [this should match the Conflicts of Interest section in the Terms and Conditions] complete the certification and for reviewing each certification at multiple points: (1) When the Firm submits a Statement of Qualifications to the Energy Commission; (2) within 30 business days from the date of the contract start date; and (3) every twelve months until the contract end date. This third phase of review will ensure that each employee and subcontractor of the Firm has considered his or her relationship with the project owner and project entities as such list is subject to change over the life of the project. The third review does not require the completion of a new form, but will require the DCBO to provide a written confirmation that a verbal verification was made for Section 3 of all employees and subcontractors who perform work under Tasks X-X under the particular contract, and will include a list of those individuals' names. Upon request, the Commission Agreement Manager (CAM) will provide the DCBO with the current list of project owners and project entities.

Whenever there is a change in project owners or project entities, the CAM will provide a new list to the Firm, at which time the Firm will follow the procedures for the third review as noted above.

Completed certifications must be returned to the CAM to be filed with the Construction Progress Reports. No work under the contract will be authorized until all persons assigned to the project by the Firm have signed this certification.

Please be advised that this certification is a tool to help the Energy Commission identify perceived conflicts of interest for a given power plant project in a timely manner.

The Firm may also find this certification helpful for continually reviewing for potential conflicts of interest.

If you are unable to complete this certification, or if you have any questions, please contact the CAM, who will work with an Energy Commission attorney to help you resolve any issues or concerns.

**Please see Exhibit F, Conflict of Interest Provisions (Attachment 8a) for additional conflict of interest requirements.**

## Section 1. Firm Employee/Subcontractor Information

|                                   |                 |                       |
|-----------------------------------|-----------------|-----------------------|
| Firm Employee/Subcontractor Name: | Date:           | Daytime Phone Number: |
| Firm Name:                        | E-mail Address: |                       |
| Contract Number:                  |                 |                       |
| Name of Power Plant Project:      |                 |                       |

## Section 2. Project Owners and Project Entities

List known project owners and project entities associated with the project listed in Section 1, including the project owner(s) (if different from "applicant"), applicant, applicant's contractors for the project, intervenors, and intervenor's contractors for the project. [Note: The CAM will provide the Firm with a list of project owners and project entities associated with the project.]

For example:

Hidden Hills Solar project:

- Hidden Hills Solar Holdings, LLC
- Jon William Zellhoefer
- Center for Biological Diversity
- Etc...

## Section 3. Conflicts of Interest

Please carefully consider each statement below with respect to the persons and entities listed in Section 2. Do not change or modify any of the statements below.

1. Within the last 12 months, have you entered into an agreement or working relationship with anyone, or negotiated or made arrangements concerning employment with any person or entity listed in Section 2?

If your response is 'Yes', please identify the person(s) and/or entity(ies) and the project name:

- ☐ Yes  
☐ No

2. Have you, your spouse, or a dependent member of your family received or been promised income aggregating \$500 or more in value from any person or entity listed in Section 2 in the last 12 months?

If your response is 'Yes', please identify the person(s) and/or entity(ies):

- ☐ Yes  
☐ No

3. Have you received or been promised one or more gifts aggregating \$460 or more in value from any person or entity listed in Section 2 in the last 12 months?

**If your response is 'Yes', please identify the person(s) and/or entity(ies):**

- ☐ Yes  
☐ No

4. Do you or your spouse have an investment worth \$2,000 or more in any person or entity listed in Section 2?

**If your response is 'Yes', please identify the person(s) and/or entity(ies):**

- ☐ Yes  
☐ No

5. Whether compensated or uncompensated, do you or your spouse serve as director, officer, partner, trustee, elected official, employee, or member, or hold any other position of management in any entity listed in Section 2?

**If your response is 'Yes', please identify the person(s) and/or entity(ies):**

- ☐ Yes  
☐ No

6. Do you or your spouse have any business affiliation with any person or entity listed above?

**If your response is 'Yes', answer the following questions.**

**If your response is 'No', skip the following questions and please sign and date the form.**

- ☐ Yes  
☐ No

- a. Do you or your spouse serve on a board that has a contract with any person or entity listed in Section 2?

- ☐ Yes  
☐ No

- b. Is any person or entity listed in Section 2 a member of a board on which you or your spouse also serve?

- ☐ Yes  
☐ No

- c. Is your spouse a contractor for any person or entity listed above?

- ☐ Yes  
☐ No

Please describe any other affiliation you or your spouse may have with each person or entity listed above:



#### **Section 4. Certification**

*I declare, under penalty of perjury, that the information and statements in this form are true, correct, and complete to the best of my knowledge.*

\_\_\_\_\_  
Firm Employee/Subcontractor Signature

\_\_\_\_\_  
Date

*I certify that I have reviewed this form, and that the information and statements in this form are true, correct, and complete to the best of my knowledge.*

\_\_\_\_\_  
Signature of Authorized Representative for Firm

\_\_\_\_\_  
Date

# **ATTACHMENT 8a**

## **EXHIBIT F**

### **Conflict of Interest Provisions**

#### **1. NOTICE OF POTENTIAL CONFLICTS**

The Contractor represents that it is familiar with California conflict of interest laws, and agrees to comply with those laws in performing this Contract (e.g., Gov. Code § 81000 et seq., and Gov. Code § 1090 et seq.). The Contractor certifies that, as of the effective date of this Agreement, it was unaware of any facts constituting a conflict of interest. The Contractor shall avoid all conflicts of interest in performing this Contract.

Contractor agrees to continuously review new and upcoming projects in which members of the Contractor team may be involved for potential conflicts of interest. Contractor shall inform the CAM as soon as a question arises about whether a potential conflict may exist. The CAM and the Commission's Chief Counsel's Office shall determine what constitutes a potential conflict of interest. Without limiting any of its other available rights, remedies, or actions, the Energy Commission reserves the right to redirect work and funding if the Commission's Chief Counsel's Office determines that there is a potential conflict of interest.

#### **2. APPEARANCES OF CONFLICTS OF INTEREST**

Contractor acknowledges that in governmental contracting even the appearance of a conflict of interest can be harmful to the interest of the State. Thus, Contractor agrees to refrain from any practices, activities, or relationships that appear to conflict with Contractor's obligations under this Contract, unless Contractor receives prior written approval of the Commission. In the event Contractor is uncertain whether the appearance of a conflict of interest may exist, Contractor shall submit to the CAM a written description of the relevant details.

#### **3. RULES REGARDING CURRENT AND FORMER ENERGY COMMISSION EMPLOYEES**

Please see the CONFLICT OF INTEREST provision in the Contractor Certification Clauses (CCC 307) incorporated by reference into these terms and conditions from the Department of General Services' required terms (GTC 610), which are also incorporated by reference in Exhibit [X].

#### **4. CERTIFICATION REGARDING CONFLICTS OF INTEREST**

The Contractor shall submit the Certification Regarding Conflicts of Interest (Appendix [X]) for each employee considered to be a "consultant" (see below) at multiple points: (1) when the Firm submits a Statement of Qualifications to the Energy Commission; (2) within 30 business days from the date of the contract start date; and (3) every twelve months until the contract end date. Please also see Appendix [X] for additional instructions.

#### **5. FILING STATEMENT OF ECONOMIC INTEREST (FORM 700)**

The California Political Reform Act requires individuals holding positions designated within an agency's conflict of interest code to file a Statement of Economic Interests (Form 700) at certain times. The Energy Commission's conflict of interest code designates "consultants"

## ATTACHMENT 8a

among the positions that must file a Form 700 (see Title 20 California Code of Regulations Sections 2401 and 2402).

The Energy Commission considers all of the Contractor's and subcontractors' employees working on (providing labor) on Tasks [X-X] **[CAM to complete - these are tasks where employees will be participating in a governmental decision, as opposed to performing strictly administrative tasks]** to be "consultants" subject to the requirements and restrictions of the Political Reform Act and requires them to file an original form 700 with the Energy Commission. (See Government Code Sections 82019 and 87302). Employees working on strictly administrative tasks, such as Tasks [X-X] **[CAM to complete – these are strictly administrative tasks]** do not have to fill out Form 700 unless directed to do so by the Energy Commission. The Energy Commission reserves the right to have anyone working under this Contract to fill out a Form 700. Each employee and subcontractor determined to be a consultant under the Political Reform Act shall be subject to the same disclosure category or categories applicable to the Commission staff who perform the same nature and scope of work as the consultant. The Energy Commission will determine the appropriate disclosure category for each consultant through the Agency Report of Consultants (Form 805) (see section below for additional information). The disclosure categories can be found at 20 California Code of Regulations Section 2402. Each of the Contractor's and subcontractors' employees performing work (providing labor) under the Agreement on Tasks [X-X], or as directed by the Energy Commission, must file a Form 700 within the times required under the Political Reform Act, which include the following:

- Assuming Office Statement. Must be filed within 30 days of beginning work under the Contract. Beginning work means when the employee actually performs work under the Contract; it does not mean the start date of the Contract unless the employee starts work on the start date.
- Annual Statement. Must be filed annually, no later than April 1.
- Leaving Office Statement. Must be filed within 30 days of ceasing to perform work under the Contract (e.g., removed as a subcontractor, completion of assigned tasks) or within 30 days after the Agreement ends.

Additionally, consultants are subject to training requirements pursuant to Government Code Section 11146 et. seq. The training, developed by the Attorney General of California and the Fair Political Practices Commission, is offered online and is mandatory for all consultants.

**Every individual that qualifies as a "consultant" under the Political Reform Act has an ongoing duty to avoid conflicts of interest and is personally liable for penalties. Please note that not filing the Form 700 or not meeting the training requirements when required can result in automatic daily fines and other consequences.**

File all original Form 700's in person at, or by mail to, the following address (e-mails and faxes are not acceptable):

Energy Commission Filing Officer – Form 700 Filing  
Selection, Training, & Equal Employment Opportunity Office  
1516 9<sup>th</sup> St., MS 52  
Sacramento, CA 95814

## **ATTACHMENT 8a**

### **6. AGENCY REPORT OF CONSULTANTS (FORM 805)**

Within 30 days of the Contract start date, Contractor must provide the CAM with a Fair Political Practices Commission Form 805, Agency Report of Consultant. Form 805 is available at: <http://www.fppc.ca.gov/content/dam/fppc/NS-Documents/TAD/Agency%20Reports/805.pdf>. The Contractor shall complete Section 2, Firm Information. Under Section 3, Consultant Information, the Contractor shall complete the Consultant Name section for every individual (including names of subcontractors' employees) performing working under Tasks [X-X][same as above - these are the tasks that consultants perform], along with the Assuming/Start Date for each individual. A supplemental Form 805 is required within 30 days whenever a new consultant begins work under the contract. If a consultant listed on a Form 805 ceases to perform work under the Contract (e.g., completion of assigned tasks), the Contractor shall notify the CAM of the change within 30 days.

### **7. SEPARATION OF DUTIES**

For the duration of this Contract, Contractor and all subcontractors shall not enter into an agreement or working relationship with anyone, and shall not negotiate or make arrangements concerning employment with anyone, who has a pending Application with the Energy Commission, is planning to file an Application, or is otherwise working on an Application that has been filed or is expected to be filed at the Energy Commission, other than as directed by the Energy Commission for DCBO services.

All employees (including employees of both Contractor and subcontractors) identified as consultants are subject to restrictions of the Political Reform Act on post-governmental activity. Contractor shall ensure that all employees are aware of these restrictions. Guidance published by the Fair Political Practices Commission on these restrictions can be found at: <http://www.fppc.ca.gov/content/dam/fppc/NS-Documents/TAD/Public Officials and Employees/Leaving State Employment.pdf>.

### **8. ENFORCEMENT**

Contractor shall make its employees aware of these provisions and shall enforce them. Contractor shall ensure that these provisions are included in all subcontracts, and shall enforce them.

### **9. NOTIFICATION OF POTENTIAL PROBLEMS**

Contractor shall immediately inform the CAM of any potential problems in compliance with these provisions.

**ATTACHMENT 9**  
**IRAN CONTRACTING ACT FORM**  
**(Public Contract Code sections 2202-2208)**

Prior to bidding on, submitting a proposal or executing a contract or renewal for a State of California contract for goods or services of \$1,000,000 or more, a vendor must either: a) certify it is not on the current list (<http://www.documents.dgs.ca.gov/pd/poliproc/Iran%20Contracting%20Act%20List.pdf>) of persons engaged in investment activities in Iran created by the California Department of General Services ("DGS") pursuant to Public Contract Code section 2203(b) and is not a financial institution extending twenty million dollars (\$20,000,000) or more in credit to another person, for 45 days or more, if that other person will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS; or b) demonstrate it has been exempted from the certification requirement for that solicitation or contract pursuant to Public Contract Code section 2203(c) or (d).

To comply with this requirement, please insert your vendor or financial institution name and Federal ID Number (if available) and complete one of the options below. Please note: California law establishes penalties for providing false certifications, including civil penalties equal to the greater of \$250,000 or twice the amount of the contract for which the false certification was made; contract termination; and three-year ineligibility to bid on contracts. (Public Contract Code section 2205.)

**OPTION #1 - CERTIFICATION**

I, the official named below, certify I am duly authorized to execute this certification on behalf of the vendor/financial institution identified below, and the vendor/financial institution identified below is not on the current list of persons engaged in investment activities in Iran created by DGS and is not a financial institution extending twenty million dollars (\$20,000,000) or more in credit to another person/vendor, for 45 days or more, if that other person/vendor will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS.

|                                             |             |                            |
|---------------------------------------------|-------------|----------------------------|
| Vendor Name/Financial Institution (Printed) |             | Federal ID Number (or n/a) |
| By (Authorized Signature)                   |             |                            |
| Printed Name and Title of Person Signing    |             |                            |
| Date Executed                               | Executed in |                            |

**OPTION #2 - EXEMPTION**

Pursuant to Public Contract Code sections 2203(c) and (d), a public entity may permit a vendor/financial institution engaged in investment activities in Iran, on a case-by-case basis, to be eligible for, or to bid on, submit a proposal for, or enters into or renews, a contract for goods and services.

If you have obtained an exemption from the certification requirement under the Iran Contracting Act, please fill out the information below, and attach documentation demonstrating the exemption approval.

|                                             |  |                            |
|---------------------------------------------|--|----------------------------|
| Vendor Name/Financial Institution (Printed) |  | Federal ID Number (or n/a) |
| By (Authorized Signature)                   |  |                            |
| Printed Name and Title of Person Signing    |  | Date Executed              |

## ATTACHMENT 10

### **Third-Party Beneficiary Language for Contract Between Project Owner and Delegate Chief Building Official (DCBO)**

All of the following provisions must be included in the Agreement between the Project Owner and the DCBO:

#### 1. Parties

- A. [Name of Applicant] (herein after referred to as "Project Owner") is the Project Owner of [Name of Project] ("Project"), Docket Log [#], which is under review by the California Energy Commission ("Energy Commission"). Review by the Energy Commission is evidenced by the Presiding Member's Proposed Decision ("Proposed Decision"), which includes draft conditions of certification providing the requirements for project construction, operation and closure. Approval of the Project by the Energy Commission is evidenced by the Presiding Member's Final Decision ("Final Decision"), which includes conditions of certification providing the requirements for project construction, operation and closure. The DCBO and Project Owner must construct the Project according to the requirements in the Final Decision.
- B. Project Owner is a party to [Name of Agreement between Project Owner and DCBO].
- C. The Energy Commission has authority to approve the Project pursuant to Public Resources Code Section 25500 *et. seq.* Under the California Building Code Standards (CBCS), while monitoring project construction and operation, staff of the Energy Commission acts as, and has the authority of, the Chief Building Official.
- D. [Name of DCBO Firm] was selected by the Energy Commission as its Delegated Chief Building Official ("DCBO") in accordance with the California Building Standards Code (California Code of Regulations, Title 24, Parts 1 through 12) to verify compliance with all applicable conditions of certification in the Final Decision, and facilitate compliance with the design, plan review, construction inspection and monitoring for the Project facility's compliance plan in accordance with all appropriate building codes; laws, ordinances, regulations and standards ("LORS"); and Energy Commission requirements. [Name of DCBO Firm] (hereinafter referred to as "DCBO") is a party to [Name of Agreement between Project Owner and DCBO].

#### 2. Express Third-Party Beneficiary

- A. To ensure proper enforcement of the Energy Commission's Final Decision and the success of the Project, in the event that the Energy Commission approves the Project, the Energy Commission is the express and intended creditor third-party beneficiary in [Name of Agreement between Project Owner and DCBO] between Project Owner and DCBO.
- B. The Energy Commission does not guarantee the approval of the Project by being named the creditor third-party beneficiary in [Name of Agreement between Project Owner and DCBO].



- C. DCBO entered into [Name of Agreement between Project Owner and DCBO] for the express benefit of the Energy Commission as the creditor third-party beneficiary. It is recognized that DCBO's performance under [Name of Agreement between Project Owner and DCBO] is tied to and related to Project Owner's obligations under the Energy Commission's conditions of certification in its Final Decision. DCBO acknowledges that its performance under [Name of Agreement between Project Owner and DCBO] is the benefit contemplated by Project Owner and is a motivating cause of making [Name of Agreement between Project Owner and DCBO]. Naming the Energy Commission as the creditor third-party beneficiary is a material condition of [Name of Agreement between Project Owner and DCBO].
- D. In the event the Energy Commission approves the Project, the Energy Commission must ensure that the Project is designed, constructed, and operated in conformity with the Final Decision; the California Building Standards Code (CBSC); the local building codes adopted by the [County or City] of [Enter name of County or City]; and LORS. If the Project Owner anticipates site mobilization immediately following issuance of the Final Decision, the Project Owner may be permitted to file compliance submittals prior to the issuance of the Final Decision. Compliance verifications may be submitted in advance of the Final Decision, but the Project Owner submits the compliance verifications at its own risk. Additionally, any work undertaken by DCBO prior to the issuance of the Final Decision shall be performed at the sole risk of DCBO. Any compliance approvals by Energy Commission staff prior to the issuance of the Final Decision are subject to change, and staff compliance approvals provided before the issuance of the Final Decision does not imply that the Energy Commission will approve the Project for actual construction and operation.
- E. DCBO, as the delegate of the Energy Commission, shall be compensated by Project Owner to certify Project Owner's obligations for compliance with the conditions of certification in the Final Decision. [Name of DCBO Firm] shall charge Project Owner, and Project Owner shall compensate [name of DCBO firm], **Option A:** for work satisfactorily completed in advance, in arrears, or from a credit account established with the DCBO Firm by the Project Owner **OR Option B:** for services based on the rates in the attached rate schedule (Appendix [X]) negotiated between the Energy Commission and DCBO. **(to be determined)**

### 3. Duties of Project Owner and DCBO

- A. The Final Decision will require that [Name of Project Owner], or current Project Owner, submit engineering plans, calculations, specifications, and other project-related facility design, construction, and operational compliance information (as required by sections 105.3 and 106.1 in Appendix Chapter 1 of the California Building Standards Code) to DCBO prior to and during construction of the Project, for review and oversight by the Energy Commission pursuant to the terms and conditions of its Final Decision as specified in California Public Resources Code section 25500 *et seq.*
- B. The design review, construction inspections, and necessary approvals prior to and during construction will be provided by DCBO, a fully qualified chief building official contractor experienced in providing industrial building official services, acting as the Energy Commission's delegate to ensure independent review of the Project.



- C. Although DCBO will function as the Energy Commission's delegate, the Energy Commission has the final authority and responsibility to ensure that the Project is built in accordance with the applicable engineering LORS, the Decision, and subsequent amendments.
- D. DCBO shall carry out these duties with all the rights and immunities afforded the Chief Building Official by applicable LORS and building codes.
- E. DCBO is authorized to take any action allowed by the California Code of Regulations and the CBSC to ensure that the Energy Commission's interests are properly addressed and protected. If DCBO has issued, or is considering issuing, a stop-work order to ensure compliance, to ensure that the Energy Commission's interests are protected, or for any other reason, DCBO shall seek the cooperation and assistance of the Energy Commission's Compliance Project Manager ("CPM").
- F. Project Owner shall maintain its books, records, documents, and other evidence sufficient to properly reflect all payments made to DCBO under [Name of Agreement between Project Owner and DCBO] for a period of three (3) years after final payment to DCBO. Project Owner shall permit the Energy Commission, another state agency, and/or a public accounting firm designated by the Energy Commission to audit Project Owner's accounting records associated with [Name of Agreement between Project Owner and DCBO] at all reasonable times, with prior notice by the Energy Commission.
- G. Project Owner shall provide the Energy Commission with two (2) copies of the executed [Name of Agreement between Project Owner and DCBO].

#### 4. Enforcement

- A. [Name of Agreement between Project Owner and DCBO] is made expressly for the benefit of the Energy Commission as the creditor third-party beneficiary and may be enforced by the Energy Commission at any time.
- B. The Energy Commission has a right of enforcement and may elect to take enforcement action against Project Owner or DCBO, and may join them in one action, for failure to perform under [Name of Agreement between Project Owner and DCBO].
- C. Nothing in [Name of Agreement between Project Owner and DCBO] will limit or impede the Energy Commission's legal authority to enforce the terms and conditions of its Decision as specified in Public Resources Code sections 25534 and 25900. The Energy Commission may amend or revoke a project certification and may impose a civil penalty for any significant failure to comply with the terms or conditions of the Decision.

#### 5. Satisfactory Performance

Project Owner and DCBO agree that DCBO's work under [Name of Agreement between Project Owner and DCBO] must be performed to the satisfaction of the Energy Commission and that the Energy Commission shall decide all questions as to the adequacy of DCBO's performance. However, lack of objection by the Energy Commission shall not constitute a waiver or estoppel of the Energy Commission's rights and remedies. Failure of DCBO to comply with the roles, responsibilities, and tasks expected of an DCBO service provider may be a basis for its termination as the delegate of the Energy Commission.



6. Amendment, Assignment and Termination

Project Owner and DCBO agree that [Name of Agreement between Project Owner and DCBO] confers rights and remedies upon the Energy Commission as the creditor third-party beneficiary. No person, other than Project Owner, DCBO, and the Energy Commission, has any rights or remedies under [Name of Agreement between Project Owner and DCBO]. Project Owner and DCBO further agree:

A. No Right to Amend without Consent of the Energy Commission

Neither Project Owner nor DCBO shall amend [Reference to Section] of [Name of Agreement between Project Owner and DCBO] expressly naming the Energy Commission as the creditor third-party beneficiary to the Agreement, without the prior written consent of the Energy Commission.

B. No Right to Assign and Delegate without Consent of the Energy Commission

Neither Project Owner nor DCBO shall assign or delegate the duties and responsibilities of Project Owner or DCBO, without the prior written consent of the Energy Commission.

C. No Right to Terminate without Consent of the Energy Commission

Neither Project Owner nor DCBO shall terminate [Name of Agreement between Project Owner and DCBO] or terminate payments to DCBO under [Name of Agreement between Project Owner and DCBO] without the prior written consent of the Energy Commission.

7. No Liability

Project Owner and DCBO agree that the Energy Commission, as intended creditor third-party beneficiary, is not liable for any events or occurrences that result in harm to persons or property during the course of construction or operation of the Project. The Energy Commission assumes no liability for errors and omissions on the design elements of the Project. If Project Owner or DCBO fail to perform their obligations under [Name of Agreement between Project Owner and DCBO], the Energy Commission shall in no way have any liability to any parties that may be harmed as a result of failure of Project Owner or DCBO to perform their obligations. Further, the Energy Commission is in no way liable for payment to DCBO for its services in the event Project Owner fails to make timely payment.

8. Flow-Down Rights in Subcontracts

A. DCBO may retain the services of one or more independent qualified subcontractor(s) to supplement its employees in the environmental monitoring, design review, plan check, and construction inspection of the project. The subcontractor(s) shall answer directly to, and be responsible to, DCBO. DCBO shall retain responsibility for the construction inspections required by Appendix Chapter 1, section 109 of the CBSC and for monitoring special inspections required by Chapter 17, section 1704 and 1707 of the CBSC.

B. It is expressly recognized that DCBO's performance under [Name of Agreement between Project Owner and DCBO] is tied to and related to the performance of its subcontractor(s). The Energy Commission shall be expressly recognized and

acknowledged as an intended creditor third-party beneficiary in all contracts between DCBO and its subcontractor(s). DCBO shall reserve for the Energy Commission, as an intended creditor third-party beneficiary, the right to proceed directly against its subcontractor(s) in the event subcontractor(s) breaches or fails to perform in whole or in part as required in its contract(s) with DCBO. The Energy Commission's right to proceed against subcontractor(s) shall be made independent of DCBO's rights.

- C. DCBO shall provide the Energy Commission two (2) copies of all executed contracts it enters into with subcontractor(s) in order to substantiate compliance with the requirements of [Name of Agreement between Project Owner and DCBO].