STATE OF CALIFORNIA

ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION

DOCKET
09-AFC-5
DATE JUL 13 2010
RECD. JUL 13 2010

In the Matter of: Application For Certification for the Abengoa Mojave Solar Project	)	Docket No. 09-AFC-5

STAFF'S SUPPLEMENTAL EXHIBITS AND REVISED EXHIBIT LIST

In accordance with the supplementary schedule contained in the *Revised Notice of Evidentiary Hearing* (June 23, 2010), Staff hereby files its supplemental exhibits and revised exhibit list.

DATED: July 13, 2010

Respectfully submitted,

_____/S/_____
CHRISTINE JUN HAMMOND
Senior Staff Counsel
California Energy Commission
1516 9th St., MS-14
Sacramento, CA
Ph: (916) 651-2924
E-mail: chammond@energy.state.ca.us

STAFF'S UPDATED EXHIBIT LIST

UPDATED JULY 13, 2010

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814 - 1-800-822-6228 - WWW.ENERGY.CA.GOV

Docket Number: **09-AFC-5** Date: **July 13, 2010**

Project Name: **Abengoa Mojave Solar Project (AMS)**

STAFF'S TENTATIVE EXHIBIT LIST

YELLOW HIGHLIGHT represents additions to Staff's Tentative Exhibit List, submitted on June 17, 2010.

Exhibit	Brief Description	Stipulation	Offered	Admitted	Refused	CEC Use Only
300	Staff Assessment for the Abengoa Mojave Solar Project, dated March 15, 2010 and docketed March 15, 2010. (a) ~~Executive Summary~~ (to be superseded by Supplemental Staff Assessment – Part C) (b) Introduction (c) ~~Project Description~~ (superseded by Supplemental Staff Assessment – Part B) (d) Cumulative Analysis (e) ~~Air Quality~~ (superseded by Supplemental Staff Assessment – Part B) (f) ~~Biological Resources~~ (superseded by Supplemental Staff Assessment – Part B) (g) ~~Cultural Resources~~ (superseded by Supplemental Staff Assessment – Part B) (h) ~~Hazardous Materials~~ (superseded by Supplemental Staff Assessment – Part A) (i) ~~Land Use~~ (superseded by Supplemental Staff Assessment – Part B) (j) ~~Noise and Vibration~~ (superseded by Supplemental Staff Assessment – Part A) (k) ~~Public Health~~ (superseded by Supplemental Staff Assessment – Part A) (l) Socioeconomic Resources (m) ~~Soil and Water Resources~~ (superseded by Supplemental Staff Assessment – Part B) (n) ~~Traffic and Transportation~~ (superseded by Supplemental					

	Staff Assessment – Part A) (o) Transmission Line Safety and Nuisance (p) ~~Visual Resources~~ (superseded by Supplemental Staff Assessment – Part A) (q) ~~Waste Management~~ (superseded by Supplemental Staff Assessment – Part A) (r) ~~Worker Safety and Fire Protection~~ (superseded by Supplemental Staff Assessment – Part A and Supplemental Opening Testimony of Alvin Greenberg, Ph.D. on Worker Safety and Fire Protection) (s) Facility Design (t) Geology and Paleontology (u) Power Plant Efficiency (v) Power Plant Reliability (w) ~~Transmission System Engineering~~ (superseded by Supplemental Staff Assessment – Part C) (x) Alternatives (y) General Conditions (z) Declarations and Witness Qualifications of: • Suzanne Phinney • ~~Tao Jiang~~ • ~~William Walters, PE~~ • ~~Heather Blair~~ • ~~Kathleen Forrest~~ • ~~Alvin Greenberg, Ph.D.~~ • ~~Negar Vahidi~~ • ~~Susanne Huerta~~ • ~~Shahab Khoshmashrab~~ • ~~Christopher Dennis~~ • ~~John Fio~~ • ~~Eugene Yates~~ • ~~Mike Conway~~ • ~~Steven Brown~~ • Obed Odoemelam, Ph.D. • ~~Thomas Packard~~ • ~~William Kanemoto~~ • ~~James Jewell~~ • ~~Ellen Townsend-Hough~~ • Erin Bright • Chris Davis • Michael Lindholm • ~~Ajoy Guha, PE~~ • ~~Mark Hesters~~ • Craig Hoffman					

	• Scott Debauche					
301	Supplemental Staff Assessment – Part A for the Abengoa Mojave Solar Project, dated May 12, 2010 and docketed May 12, 2010. ~~(a) Executive Summary~~ (b) Hazardous Materials (c) Noise and Vibration (d) Public Health (e) Traffic and Transportation (f) Visual Resources (g) Waste Management (h) Worker Safety and Fire Protection (i) Declarations and Witness Qualifications of: • ~~Craig Hoffman~~ • Alvin Greenberg, Ph. D. • Shahab Khoshmashrab • Steven J. Brown, PE • William D. Kanemoto • James E. Jewell • Thomas Packard • Ellen Townsend-Hough					
302	Supplemental Staff Assessment – Part B for the Abengoa Mojave Solar Project, dated May 25, 2010 and docketed May 25, 2010. ~~(a) Executive Summary~~ (b) Project Description (c) Air Quality/GHG (d) Biological Resources (e) Cultural Resources (f) Land Use (g) Soil and Water Resources ~~(h) Transmission System Engineering~~ (i) Declarations and Witness Qualifications of: • Craig Hoffman • Tao Jiang • William Walters, PE • Heather Blair • Kathleen Forrest • Negar Vahidi • Susanne Huerta • Christopher Dennis • John Fio • Eugene Yates • Mike Conway					

	• ~~Ajoy Guha, PE~~ • ~~Mark Hesters~~					
303	Supplemental Staff Assessment – Part C for the Abengoa Mojave Solar Project (a) Executive Summary (b) Transmission System Engineering, including Appendix A (c) Declarations and Witness Qualifications of: • Craig Hoffman • Heather Blair • Ajoy Guha, PE • Mark Hesters					
304	CEC Staff's Errata to SSA Part B – Biological Resources, dated June 9, 2010 and docketed on June 9, 2010					
305	CEC Staff's Errata to SSA Part B – Air Quality Declarations and Witness Qualifications of: • Tao Jiang • William Walters					
306	CEC Staff's Rebuttal Testimony to the Applicant's Opening Testimony, dated June 17, 2010 and docketed on June 17, 2010 (a) Biological Resources (b) Hazardous Materials (c) Noise and Vibration (d) Soil and Water Resources (e) Traffic and Transportation (f) Visual Resources (g) Waste Management (h) Worker Safety and Fire Protection (i) Declarations and Witness Qualifications in support of Staff's Rebuttal Testimony dated June 17, 2010, of: • Heather Blair • Alvin Greenberg, Ph.D. • Shahab Khoshmashrab • Christopher Dennis • John Fio • Eugene Yates • Mike Conway • Steven Brown, PE • Thomas Packard • William Kanemoto • James Jewell • Ellen Townsend-Hough					

307	*City of Barstow v. City of Adelanto*, Superior Court of Riverside County, No. 208568, Judge Erik Michael Kaiser, "Judgment After Trial" (Jan. 10, 1996)					
308	*City of Barstow v. City of Adelanto*, Superior Court of Riverside County, No. 208568, Judge Erik Michael Kaiser, "Amended Statement of Decision" (Jan. 2, 1996)					
309	*City of Barstow v. Mojave Water Agency* (2000) 23 Cal. 4th 1224					
310	Mojave Basin Area Watermaster Annual Report for Water Year 2008-2009 (May 1, 2010) (without Appendices)					
311	Appendix L of Mojave Basin Area Watermaster Annual Report for Water Year 2008-2009 (May 1, 2010)					
312	Email dated June 28, 2010, from Ashleigh Blackford of United States Fish and Wildlife Service to Heather Blair of CEC Staff					
313	Supplemental Opening Testimony of Alvin Greenberg, Ph.D. on Worker Safety and Fire Protection Declaration of Alvin Greenberg, Ph.D.					
314	(Reserved) Supplemental Rebuttal Testimony on: (a) Worker Safety and Fire Protection (b) Air Quality (c) Transmission System Engineering, including Appendix A (d) Declarations of: • Alvin Greenberg, Ph.D. • Tao Jiang • William Walters • Ajoy Guha, PE • Mark Hesters • Heather Blair					
315	ROC Between R. Frymyer General Manager for SEGS 1 and 2 and Shon Greenberg (May 25, 2010)					
316	Staff Decision Matrix					
317	Staff Draft Summary of SBCFD Responses to Solar Power Plants					
318	SBCFD - Response Log 1998 to 2009					
319	SBCFD - Mitigation Response Material from June 2010					
320	SBCFD - Log Notes from January 1999					
321	SBCFD - Activity Log					
322	SBCFD - Plan Reviews at Solar Plants					
323	SBCFD - Response Log 1998 to 2009					
324	SBCFD - Haz Mat Inspections					
325	EMS Response from SBCFD					
326	SBCFD staffing cost estimates for a fire station					
327	SBCFD Estimated Costs Station Construction, Equipment and					

	Staffing					
328	SBCFD Map of Renewable Energy Projects, March 2010					
329	Estimated Allocation of Fire Facility Costs to Proposed Solar Energy Installations prepared by Hoffman Associates for San Bernardino County Fire Department					
330	Occupational Safety and Health Administration - Fire Fighters' Two-in/Two-out Regulation.					
331	ROC between Battalion Chief Mike Weis, San Bernardino County Fire Department, and Shon Greenberg (January 5, 2010)					
332	ROC between Peter Brierty, Assistant Chief/Fire Marshal, San Bernardino County Fire Department, and Alvin Greenberg (June 15, 2010)					

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV

APPLICATION FOR CERTIFICATION
FOR THE *ABENGOA MOJAVE SOLAR POWER PLANT*

Docket No. 09-AFC-5
PROOF OF SERVICE
(Revised 6/23/2010)

APPLICANT
Emiliano Garcia Sanz
General Manager
Abengoa Solar Inc.
11500 West 13th Avenue
Lakewood, CO 80215
emiliano.garcia@solar.abengoa.com

Scott D. Frier
Chief Operating Officer
Abengoa Solar Inc.
13911 Park Ave., Ste. 206
Victorville, CA 92392
scott.Frier@solar.abengoa.com

Tandy McMannes
2030 Addison Street, Suite 420
Berkeley, CA 94704
tandy.mcmannes@solar.abengoa.com

APPLICANT'S CONSULTANTS
Frederick H. Redell, PE
Engineering Manager
Abengoa Solar, Inc.
11500 West 13th Avenue
Lakewood, CO 80215
frederick.redell@solar.abengoa.com

COUNSEL FOR APPLICANT
***Christopher T. Ellison**
Ellison, Schneider & Harris
2600 Capitol Ave., Suite 400
Sacramento, CA 95816
cte@eslawfirm.com

INTERESTED AGENCIES
California ISO
E-mail Preferred
e-recipient@caiso.com

INTERVENORS
County of San Bernardino
Ruth E. Stringer, County Counsel
Bart W. Brizzee, Deputy County Counsel
385 N. Arrowhead Avenue, 4th Floor
San Bernardino, CA 92415-0140
bbrizzee@cc.sbcounty.gov

California Unions for Reliable Energy ("CURE")
Tanya A. Gulesserian
Marc D. Joseph
Elizabeth Klebaner
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080
E-mail Preferred
tgulesserian@adamsbroadwell.com
eklebaner@adamsbroadwell.com

Luz Solar Partners Ltd., VIII
Luz Solar Partners Ltd., IX
Jennifer Schwartz
700 Universe Blvd
Juno Beach, FL 33408
jennifer.schwartz@nexteraenergy.com

ENERGY COMMISSION
ANTHONY EGGERT
Commissioner and Presiding Member
aeggert@energy.state.ca.us

JAMES D.BOYD
Vice Chairman and Associate Member
jboyd@energy.state.ca.us

Kourtney Vaccaro
Hearing Officer
kvaccaro@energy.state.ca.us

Lorraine White
Adviser to Commissioner Eggert
lwhite@energy.state.ca.us

Craig Hoffman
Project Manager
choffman@energy.state.ca.us

*indicates change

Christine Hammond
Staff Counsel
chammond@energy.state.ca.us

Jennifer Jennings
Public Adviser's Office
publicadviser@energy.state.ca.us

DECLARATION OF SERVICE

I, Debra Dabney, declare that on July 13, 2010, I served and filed copies of the attached Staff's Supplemental Exhibits and Revised Exhibit List, dated July 13, 2010. The original documents, filed with the Docket Unit, are accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: **[http://www.energy.ca.gov/sitingcases/abengoa/index.html]**. The document has been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

The document has been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(Check all that Apply)

For service to all other parties:

__x__ sent electronically to all email addresses on the Proof of Service list;

_____ by personal delivery;

__x__ by delivering on this date, for mailing with the United States Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses **NOT** marked "email preferred."

AND

For filing with the Energy Commission:

_x___ sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (preferred method);

OR

_____depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 09-AFC-5
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

Debra Dabney
Chief Counsel's Office

EXB 315 - CEC 2010p - CEC / S. Greenberg (TN 57272). ROC Between R. Frymyer General Manager for SEGS 1 and 2 and Shon Greenberg. Submitted to CEC on 6/22/2010.

DOCKET
09-AFC-5
DATE MAY 25 2010
RECD. JUN 22 2010

Telephone Conversation Record

To: Richard Frymyer, General Manager
Sunray Energy, Cogentrix Solar Services

From: Shon Greenberg
Risk Science Associates

Phone Number: (760) 254- 3381
Date: May 25, 2010, 1:15pm

Regarding: Emergency response to SEGS 1 and 2, Daggett, CA

In response to my inquiry Richard Frymyer indicated that his company purchased this facility in February of 2009 so he doesn't have the prior safety records. However, he has reviewed their safety records (since he was also very interested in this topic when the facility was acquired) and to the best of his knowledge there were only three fire department/emergency responses to these facilities since they began operation in 1984. Two of the incidents were false alarms. The incidents are:

1. Feb 25, 1999: An HTF fire occurred in the HTF tanks. This was a major fire and the fire department was called upon. The HTF was allowed to burn itself out which took about 2 days. There were no injuries.

2. Feb 28, 2000: An employee had a suspected heart attack (which was actually caused by drinking a whole bottle of jabanyero hot sauce), and an ambulance responded from the fire department.

3. May 15-17, 2010: An HTF spill of about 60 gallons occurred in the solar field. The facility personnel cleaned it up on May 15th and reported it to San Bernardino County on the next business day, May 17th. When receiving the report the dispatcher misunderstood the report and sent out a 911 call indicating a spill is in progress. The whole fire department showed up on scene.

EXB 316 - CEC 2010q - CEC / A. Greenberg (TN 57321). Staff Decision Matrix. Submitted to CEC on 6/24/2010.

DOCKET
09-AFC-5
DATE JUN 24 2010
RECD. JUN 24 2010

Emergency Response Matrix

A. Response Criteria	points	weighting factor	SEGS 4-7	SEGS 8-9	AMS
1. Inspections		0.10			
a. minimal need	1				
b. average need	3		3	3	3
c. significant need	5				
		Net -->	*0.3*	*0.3*	*0.3*
2. Fire		0.50			
A. Quantity liquid fuel or hydrogen gas stored on-site		0.20			
a. <1,000 gal or <1000 lbs hydrogen gas	1				
b. >1000 and <100,000 gal or <10,000 lbs hydrogen gas	2				
c. >100,000 gal or >10,000 lbs hydrogen gas	5		5	5	5
		Net -->	*1.00*	*1.00*	*1.00*
B. Fire/Explosion off-site consequences		0.30			
a. Limited to site	1			1	
b. Potential for smoke and/or fire and/or minor blast effects off-site	2				
c. Potential for major fire/blast structure damage and/or injuries/fatalities off-site and/or major hwy disruption/closure	5		5		5
		Net -->	*1.50*	*0.30*	*1.50*
3. HazMat		0.10			
A. Proximity to sensitive receptors		0.05			
a. no sig quant of hazmats or no potential for off-site impacts within 1/2 mile	1			1	
b. <5 receptors within 1/2 mile	2				2
c. 5-10 receptors within 1/2 mile	3				
d. >10 within 1/2 mile	4				
e. impacts major highway/interstate	5		5		
		Net -->	*0.25*	*0.05*	*0.10*
B. Hazmat response time		0.05			
a. <30 minutes	1				
b. 30 - 60 minutes	3		3	3	3
c. >60 minutes	5				
		Net -->	*0.15*	*0.15*	*0.15*
4. Rescue		0.15			
a. <30 minutes	1		1	1	1
b. 30 - 60 minutes	3				
c. >60 minutes	5				
		Net -->	*0.15*	*0.15*	*0.15*
5. EMS					
EMS response time		0.15			
a. in-house EMT or <5 minutes response time	1				
b. 5 - 10 minute resposne time	2				
c. >10 and <15 minute response time	3			3	3
d. >15 and <30 minute response time	4		4		
e. >30 minute response time	5				
		Net -->	*0.60*	*0.45*	*0.45*
Sum weighting factors		**1.00**			
TOTAL SCORE		======>	3.95	2.4	3.65

LOW Priority: additional resources and mitigation may be needed.	0.1 - 1.5
MEDIUM Priority: additional resources and mitigation needed.	1.5 - 2.5
HIGH Priority: very significant need for additional resources and mitigation.	2.5 - 3.5
VERY HIGH Priority: urgent need for additional resources and mitigation.	>3.5

EXB 317 - CEC 2010r - CEC / A. Greenberg (TN 57264) Staff Draft Summary of SBCFD Responses to Solar Power Plants. Submitted to CEC on 6/22/2010.

Fire Department Response to Solar Thermal Power Plants

The following solar thermal power plants were surveyed for fire department response:

- SEGS I and II, Daggett, San Berbardino County, operational since 1984, (Cogentrix Solar Services)
- SEGS III-VII, Kramer Junction, San Bernardino County, operational since 1989, (NextEra Energy)
- SEGS VIII and IX, Harper Dry Lake, San Bernardino County, operational since 1989, (NextEra Energy)

The following types of incidents were surveyed:

1. Plan reviews
2. Hazmat and fire inspections
3. Emergency Response including medical, fire, rescue, and hazardous materials incidents

Survey Results:

1. Plan Review by the San Bernardino County Fire Department:

SEGS III-VII Kramer Junction
Waterline plan reviewed in 11/07, file 26688
Alarm plan approved 8/11/09, file 30483
Alarm plan currently in plan check, file 31003 (@ Victorville office)
Alarm Notification plan currently in plan check, file 31004 (@ Victorville office)

SEGS VII & IX Harper Dry Lake
Aboveground Tank approved 5/5/09, file 29308

2. Inspections, plan reviews, enforcement activities, and follow ups by the San Bernardino County Fire Department (SBCFD):

SEGS I & II: 10 inspections were conducted since 2008, totaling 24 hours of SBCFD time.

SEGS III-VII: 48 inspections were conducted since 2003, totaling 128 hours of SBCFD time.

SEGS VIII & IX: 29 inspections were conducted since 2004, totaling 105 hours of SBCFD time.

3. **Emergency response including fire, rescue, medical, and hazardous materials incidents:**

According to SBCFD's records, approximately 30 incidents occurred since 1998 that required the SBCFD (and other fire stations through mutual aid agreements) to respond to the three solar power plant sites. These include fires, fire alarm activations, injuries, medical emergencies, hazardous materials spills, complaints/calls from the public, and false alarms.

According to Richard Frymyer, the SEGS I & II general manager, only three incidents in the life of the plants ever required emergency services:

1. Feb 25, 1999: An HTF fire occurred in the HTF tanks. This was a major fire and the fire department was called upon. The HTF was allowed to burn itself out which took about 2 days. There were no injuries, but extensive damage.

2. Feb 28, 2000: An employee had a suspected heart attack (which was actually caused by drinking a whole bottle of hot sauce), and an ambulance responded from the fire department.

3. May 15-17, 2010: An HTF spill of about 60 gallons occurred in the solar field. The facility personnel cleaned it up on May 15th and reported it to San Bernardino County on the next business day, May 17th. When receiving the report the dispatcher misunderstood the report and sent out a 911 call indicating a spill is in progress. The whole fire department showed up on scene.

According to information received from the Glen King, the environmental manager for SEGS III through IX, the following five incidents were the only ones he can recall in the life of these plants that required fire department response:

1. 1998: A plant employee was performing repairs and received electrical shock when his wrench touched across electrical cables. He suffered burns on arm and neck and was air lifted to a hospital.

2. February 2002: An employee working on a pump lost two fingers in an accident and an ambulance was called to transport him to a hospital.

3. August 2002: The fire department hazmat unit was called to assist the plant personnel with a hazmat incident at SEGS III – VII. A temporary sulfuric acid (93%) storage tank at their water treatment facility had a faulty hose that broke and leaked sulfuric acid into a building where other chemicals were stored. It mixed with water and other chemicals and therefore required the fire department's help in clean up.

4. 2007: The fire department was called upon when 30,000 gallons of HTF spilled at SEGS VII.
5. Feb 2009: The fire department responded to a concerned citizen's call when they had a flex hose failure at SEGS VIII and a vapor cloud ignited. The fire department was not needed as plant staff had the situation under control.

Summary:

Relying on the data received from the SBCFD for the past 10 years, the department responded to about 30 incidents and emergencies at the nine solar units, including one major fire, two hazardous materials spills, and two medical emergencies. During the same period the SBCFD conducted approximately 90 inspections and visits for enforcement actions/plan reviews, totaling about 260 hours of personnel time.

EXB 318 - CSBFD 2010a - San Bernardino County Fire Department (TN 57267) SBCFD - Response Log 1998 to 2009 Submitted to CEC on 6/22/2010.

ccc/bdc number	date	time	remarks
98010253	02/18/1998	1041	MISC 040 , HARPER LAKE RD AT THE LUZ SOLAR PLANT.
98012783	03/01/1998	0931	TEXT 031 FX LEG / MEET RP AT POWER PLANT
98032684	06/09/1998	1336	TEXT 053 UNKN TYPE ALARM AT THE POWER PLANT / PER LLU SECURITY
98060460	10/19/1998	0844	MISC 070 (M4203) E125 , FIRE AT LUZ SOLAR PLANT//ADVISED OF PERMIT REQUIREMENTS
98063549	11/04/1998	0703	TEXT 050 SOLAR PLANT // LARGE FLAMES // LOTS OF BLACK SMOKE
98064220	11/07/1998	1341	DISP 061 (H0664) E40 AMR31 , AT THE POWER PLANT....SOMEONE WILL DIRECT
98064225	11/07/1998	1408	TEXT 090 BACK INJ///LZ AT THE POWER PLANT AT THE HELOSPOT....CONTACT BE48 ON CALCO RD...TB 4565 F7
99011628	02/26/1999	1812	CHGLOC 033 SOLAR PLANT/ZZZ TO 35100 SANTE FE
99019822	04/07/1999	2221	TEXT 031 UNIV POWER PLANT - POSS HEART -
99025686	05/07/1999	1208	TEXT 041 ELECTRICAL FIRE AT THE MIDDLE POWER PLANT
99025843	05/08/1999	0620	TEXT 054 MALE FELL BACKWARDS/HIT HEAD ON RAILING/AT POWER PLANT
99030487	05/31/1999	1430	MISC 044 , TAKE THE Y NORTH AWAY FROM THE POWER PLANT
99038079	07/06/1999	2206	MISC 068 (10546) , S/O ADVISES ARCING LINES BEHIND POWER PLANT AT 810 3RD ST.
99051027	09/15/1999	0604	ADVISD 083 PASSING A KIDNEY STONE/ MOJAVE SIPHON POWER PLANT 16001 HWY 173/ DSRT COM MADVISED
13824	03/12/2000	1724	TEXT 029 THE POWER PLANT/ GEN FIRE ALM
25326	05/15/2000	1103	TEXT 046 FIRE AT THE KRAMER SOLAR PLANT, E89 RESPONDING
25326	05/15/2000	1237	MISC 095 (H2744) , DAVE RIB, AN EMPLOYEE REP SOLAR PLANT GAVE THE FOLLOWINGINFORMATION ON THE INCIDENT.
25326	05/15/2000	1245	MISC 377 (H2744) , FIRE WAS IN A PUMP LOCATED IN SEGS (SOLAR ELECTRICAL GENERATINGSYSTEMS) "FIVE". THERE ARE 5 SEGS IN THIS SOLAR PLANT. FIRE WAS CAUSED BY AFLASH AND DOLLAR L PER DAVE RIB.. ANYMEDIA REQ FOR MORE INFO, THEY CAN CONTACT MR RIB AT THE PLANT AT760-762-5562 EXT 246...FIRE WAS CONTAINED BY ON SITE FIRE APPARATUS. NO HAZMAT INVOLVED.
31488	06/16/2000	1745	MOVEOS 023 (F1435) E53 SOLARION IC
50537	09/15/2000	1015	TEXT 043 BUS-SOLAR INK/MANUAL PULL ON FIRE COMMAND 2
59683	11/01/2000	0017	TEXT 021 POWER PLANT EXPLOSION
1001805	01/09/2001	0342	MISC 095 (M4203) E31 , CORNER OF BUSH AND O ST....2ND REPORT ADVISING POWER POLE ONFIRE NOT POWER PLANT
1012121	02/26/2001	0147	TEXT 075 SOLAR PLANT - MALE 36/ AMPUTATED FINGERS/ SUBJ BEING BROUGHT TO MAIN OFFICE
1023952	04/25/2001	1438	TEXT 046 AT SOLARIS HOLDING//ZONE 5 WATERFLOW 2ND FLOOR
1029392	05/21/2001	1735	MOVEOS 025 (H2744) AC4101 "SOLAR IC"
1029392	05/21/2001	2120	MOVEOS 022 (A7909) BC140 SOLAR IC
1029392	05/21/2001	2127	MISC 063 (A7909) , PER NOAH AT DES COMM BC140 HAS NOW ASSUMED "SOLAR IC"
1029392	05/21/2001	2319	MOVEOS 022 (C0662) C4100 SOLAR IC
1038564	07/01/2001	1708	TEXT 053 GEN FIRE AT THE POWER PLANT TB 647-B1 CROSS TAYLOR ST
1042388	07/17/2001	1029	TEXT 038 SOLAR PLANT IN DAGGETT..POSS STRUCTURE
1045426	07/31/2001	1436	TEXT 064 SOLAR LINK INTL...ME138 ON FIRE COMMAND 2 ..REQ E74..MANUAL PULL
1046896	08/07/2001	1334	TEXT 073 GENERAL FIRE ALARM AT THE POWER PLANT / ALSO SHOWS ADRESS OF 11040 TAYLOR
1048135	08/13/2001	0643	TEXT 052 COOL WATER SOLAR PLANT- FALL VICTIM FROM 40 FT TOWER
1048141	08/13/2001	0709	TEXT 048 FALL VICT 3762 D1//SOLAR PLANT AIR OPS ON CALCOR
1064022	10/24/2001	0545	TEXT 049 TWO LARGE BLAST NEAR THE POWER PLANT, NO ADD INFO
1068227	11/12/2001	2025	TEXT 101 PASSERBY SAW A FLASH AT THE POWER PLANT - POWER WENT OFF MOMENTAIRLY THENCAME BACK ON - SEES NO FIRE
2007551	02/05/2002	1658	TEXT 044 POWER PLANT X-ANDERSON /GENERAL FIRE ALARM /
2012325	02/26/2002	0610	TEXT 028 SOUTHWEST END OF POWER PLANT
2013243	03/02/2002	0743	TEXT 040 SOLAR PLANT FIRE, LARGE OUTSIDE OIL FIRE
2024007	04/21/2002	1042	TEXT 105 NEAR SOLAR PLANT...POSS CROSS OF HARPER LAKE RD X ROY...OUT OF CONTROL BURNJOB....RP PHONE # 760-7625424
2036894	06/19/2002	0014	MISC 072 (B2816) , LL ON CALL FOR WATER PAGED TO CALL THE DANA AT THE POWER PLANT
2037295	06/20/2002	1733	TEXT 044 1/2 E OF SOLAR PLANT...LARGE COLUMN OF SMOKE
2041718	07/08/2002	1658	TEXT 064 POWER PLANT..GENERAL FIRE....PERSON TO MEET YOU AT UNIVERSITY CT
2041887	07/09/2002	1334	TEXT 059 POWER PLANT...GENERAL FIRE ALARM MADE ACCESS OFF UNIVERSITY
2044039	07/18/2002	1928	TEXT 043 AT THE POWER PLANT, GEN FIRE ALARM NO RESET
2052135	08/24/2002	2200	NEWLOC 026 (F1435) RED SOLAR INCIDENT
2052135	08/24/2002	2202	MOVEOS 021 (F1435) E125 SOLAR IC
2052135	08/24/2002	2220	MOVEOS 022 (F1435) BC149 SOLAR IC

2059978 09/28/2002 2328 TEXT 085 NEAR AZ 95 AT COURTRIGHT, NEAR THE SOUTH POINT POWER PLANT, REQ AMBULANCE.TB 352 D10
2075159 12/09/2002 1118 MISC 091 (A7910) ME62 , EDISON POWER PLANT NOTHING SHOWING DID HAVE AN EXPLOSION WITHA POWER OUTAGE
3014343 03/04/2003 1439 TEXT 018 AT THE POWER PLANT
3022802 04/12/2003 1559 TEXT 085 NEAR LG POWER PLANT, TOWARDS END OF ESCONDIDO, NEAR LARGE BUSH, NUMEROUSDRUMS DUMPED
3029305 05/12/2003 2012 TEXT 118 E911 TIME: 201002 SEVERAL EXPLOSIONS HEARD AT EDISON SUB POWER PLANT ACROSSFROM THIS ADDRESS :ELECTRICITY OUT IN AREA
3044743 07/15/2003 1517 TEXT 026 POWER PLANT SMOKE DETECTOR
3073855 11/14/2003 1302 TEXT 086 POWER PLANT-GENERAL FIRE ALARM-POSS SMOKE FROM A WELDER OR DUST IN THE AREA-RP UNSURE
3078657 12/05/2003 1422 TEXT 038 POWER PLANT..GENERAL ALARM..X PROSPECT
3084807 12/29/2003 0812 TEXT 061 E911 TIME: 081017 RP SEE SMOKE BEHIND THE FONTANA POWER PLANT
3085269 12/31/2003 0947 TEXT 122 PROSPECT BTWN ANDERSON AND THE FIRST DRIVEWAY ON THE NORTH SIDE OF THESTREET \\ WATER LEAKING INTO THE POWER PLANT TUNNEL
4015231 03/08/2004 1900 TEXT 070 LARGE FLASH OF LIGHT SEEN FROM THE POWER PLANT / POSS TRANSFORMER FIRE
4037936 06/17/2004 1131 TEXT 089 E911 TIME: 113004 AT THE CONSTRUCTION AREA OF THE POWER PLANT, 40 Y/O MAN,POSSIBLE HEART
4045870 07/20/2004 1017 TEXT 060 E911 TIME: 101550 40Y FEM,FALL ARM INJ/EMPLOYEE, POWER PLANT
4060317 09/20/2004 1931 TEXT 091 NEAR POWER PLANT, MC T/C 1 MALE SUBJ, REQ'G AMB, BETWEEN NORTH DYKE ENTRANCEAND CORTWRIGHT
4067327 10/20/2004 2218 MISC 040 (B5541) E4 , STEAM FROM POWER PLANT - MI
4071679 11/09/2004 0725 TEXT 126 E911 TIME: 072133 ILL 51 YOM, HI BP, AT THE POWER PLANT. MEET RP IN A SMALLWHT P/U AT THE CORNER OF SAN BERNARDINO & MTN VIEW
4072656 11/13/2004 2126 MISC 078 (O0407) E127 , ALL THE POWER IS OFF ST THE POWER PLANT - BACK UP LIGHTS AREON
4075684 11/27/2004 0920 MISC 048 (A7909) E40 , STAGE AT POWER PLANT AND ESCONDIDO
4075684 11/27/2004 0924 MISC 069 (A7909) E40 , NEED A/S ME301 GC CALCOR LZ ON ESONDIDO, BY POWER PLANT
5007686 02/01/2005 0923 TEXT 034 POWER PLANT GENERAL BLG FIRE ALARM
5041246 06/25/2005 1324 TEXT 164 ON 58 10 MILES EAST OF KRAMER JUNCTION/RP WILL MEET ON RED HONDA DIRT BIKENEAR SOLAR PANELS/50 YOM OFF RD TC/DISORIENTED/INJURED RIGHT WRISTS ANDSHOULDER/HIT HEA
5047481 07/18/2005 0841 ADVISD 090 POWER PLANT UNDER CONTRUCTION/POSS HEART, X OF THE SANTA ANA WASH, CALLGIVEN TO CITY FIRE
5047482 07/18/2005 0845 MISC 021 (B5541) , POWER PLANT
5047854 07/19/2005 1554 CHGLOC 051 KECK SOLAR PLANT, DAGGETT TO 35100 SANTA FE ST ,DAG
5047854 07/19/2005 1604 MISC 168 (H2744) , | VEG FIRE/LIGHTNING STRIKES- DAGGETT AREA/OLD SEGS 1 SOLAR PLANT-70 PLUS ACRES AT THIS TIME AT THE RIVER BOTTOM.HAS BEEN SENT TO THEFOLLOWING PAGER(S):9911
5050516 07/30/2005 0347 TEXT 037 EXPLOSION FROM A POWER PLANT BUILDING
5054917 08/17/2005 1029 TEXT 095 AT THE POWER PLANT, FEMALE WAS FOUND ON PROPERTY, ALOC, SHE WALKED TO LOCFROM HER DISABLED VEH
5069994 10/21/2005 1759 TEXT 143 CHECK AT THE SOLAR PLANT- REPORTS OF CLOUD ABOVE IT- PLANT STATES ITS HEATTRANSFER FLUID- PASSERBYS ARE HAVING ISSUES- IRRITATING TO THE EYES-
5073831 11/08/2005 0232 MISC 042 (F1435) DES1 , ACROSS FROM THE POWER PLANT
5085786 12/29/2005 1751 TEXT 136 FLAMES FROM VEG ON AN OLD RANCH 8 MILES NORTH OF 58 ON HARPER LAKE RD/ RPCALLING FROM THE SOLAR PLANT AND IS VISIBLE FROM THIS LOCATION
6002347 01/09/2006 1807 TEXT 118 SOLAR PLANT, NOTIFICATION ONLY 75 GAL MONSANO VP1 HEAT TXFER FLUID SPILL,CLEAN UP CREW OS, X282 ALSO CELL #7609649862
6005946 01/25/2006 1443 TEXT 082 GENERATOR ACTIVATION AT BLDG JUST OUTSIDE POWER PLANT. X-ANDERSON.. DID NOTVERIFY
6008209 02/04/2006 1627 TEXT 094 E911 TIME: 162501 *STAND BY* SO ENRT // RIVERSIDE CANAL POWER PLANT / 5150MALE COMP OF PAIN /
TITLE:CAD Narrative [CRLF]CAD Inc #: 06008209 Sheriff Inc#: ALS MEDICAL AID E911 TIME: 162501 *STAND BY* SO ENRT // RIVERSIDE CANAL POWER PLANT / 5150 MALE COMP OF PAI
6004975 02/04/2006 0001 [CRLF]At 1627 hours on Saturday February 4, 2006 we were dispatched to an EMS call. Two units were assigned to this incident. Two personnel responded. We arrived on scene at 1633 hours and cleared at 1653 hours. Th
6010688 02/15/2006 1158 TEXT 069 RP ADV CHEM SPRAY OVER US 395 FROM SOLAR PLANT JNO KRAMER JCT, CHP ER
6010688 02/15/2006 1206 MISC 141 (F1435) , RP HAS LEFT THE AREA, GOING TOWARDS ADELANTO, THIS WAS A GAS, NOTA LIQUID, WAS NEAR THE SOLAR PLANT, RP CELL PHONE IS 949-212-2548
6006421 02/15/2006 0000 TITLE:CAD Narrative [CRLF]CAD Inc #: 06010688 Sheriff Inc#: HAZARDOUS MATERIALS RP ADV CHEM SPRAY OVER US 395 FROM SOLAR PLANT JNO KRAMER JCT, CHP ER[CRLF]
6011266 02/18/2006 0231 TEXT 029 SMOKE COMING FROM POWER PLANT
6022083 04/06/2006 1440 MISC 066 (H2730) , RED BC STS POSSIBLY NEAR THE POWER PLANT NEAR RED BORDER
6034449 05/30/2006 1136 TEXT 033 GEN FIRE ALARM AT THE POWER PLANT
6034449 05/30/2006 1146 MISC 044 (M4694) MS251 , POWER PLANT NO9THING SHOWING
6038705 06/17/2006 0956 TEXT 029 VEG FIRE NEAR THE POWER PLANT
6075556 11/18/2006 0930 MISC 163 (C5205) , *** PER RO: HOLE IS ON HELENDALE BTWN STATE 58 AND SILVER LAKES,RP WAS CALLING FROM THE SOLAR POWER PLANT, MAKE CONTACT W/ANYONE AT CB# IFANY QUESTIONS
6075556 11/18/2006 0930 MISC 163 (C5205) , *** PER RO: HOLE IS ON HELENDALE BTWN STATE 58 AND SILVER LAKES,RP WAS CALLING FROM THE SOLAR POWER PLANT, MAKE CONTACT W/ANYONE AT CB# IFANY QUESTIONS
7017023 03/10/2007 2026 ADVISD 203 REF CAD #014, FEM SUBJ FROM INC WAS W/ 2 MALE SUBJ ALSO LOST SOMEWHERE ONTHE BASE PAST THE SOLAR PANELS IN A VAN OR MOTORHOME W/2 FLATS, PER SBSO RP#714421664
7012220 03/22/2007 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 07019896 Sheriff Inc#: FALSE ALARM FONTANA TRUCK STOP: AIR DUCT SMOKE DET/ PREM 909-829-6671SOLAR SYSTEM 455 8002280580[
7027251 04/24/2007 1245 TEXT 024 FIRE ALARM - POWER PLANT
7055255 08/19/2007 1020 MISC 069 S4 , MET WITH RP FROM SOLAR PLANT, DIRECTING FURTHER TO POSS LOCATION
7062835 09/19/2007 2310 TEXT 039 IN POWER PLANT / RP WILL MEET AND GUIDE

7066984 10/08/2007 1900 MISC 053 (B8165) BP125 , IN AREA - MAKING ACESS TO SOLAR PLANT
7070089 10/22/2007 0528 ONSCNE 062 (B8165) C-3600 , BEST ACCESS GRASS VALLEY RD TO POWER PLANT RD
7084685 12/22/2007 1147 TEXT 020 NEAR THE POWER PLANT
TITLE:CAD Narrative [CRLF]CAD Inc #: 07084685 Sheriff Inc#: TC W/NO INJURIES NEAR THE POWER PLANTRIVER MEDICAL RHONDA 7025214818[CRLF][CRLF]TITLE:New
7052032 12/22/2007 0000 Saturday December 22, 2007 we were dispatched to a vehicle accident with no injuries. Four units were assigned to this incident. We arrived on scene at 1159 hours and cleared at 1215 hours. The incident occurred at On F
8012798 02/20/2008 0931 ADVISD 155 STATES HE IS LOOKING ACROSS THE RIVER AND STATES THERE IS A VEG FIRE NEXT TOTHE POWER PLANT. ADV MOJAVE VLY WHO STATES THEY HAVE SEVERAL BURNS IN THE AREA
8020933 03/25/2008 2227 TEXT 042 ELECTRICAL POWER PLANT / RP # 909-208-6521
8012751 03/25/2008 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 08020933 Sheriff Inc#: UNABLE TO LOCATE ELECTRICAL POWER PLANT / RP # 909-208-6521SBSO[CRLF]
8031076 05/08/2008 1407 TEXT 041 VEH INTO BLDG, POWER PLANT, BLUE CORVETTE
8018734 05/08/2008 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 08031076 Sheriff Inc#: TC W/EXTRICATION NEEDED VEH INTO BLDG, POWER PLANT, BLUE CORVETTECHP TXFER 9098253414[CRLF]
8038613 06/07/2008 1641 MISC 068 (D8247) , PER MOHAVE VALLEY THIS IS GOING TO BE NEAR THE POWER PLANT
8038613 06/07/2008 1653 MISC 138 (D8247) , PER MOHAVE VALLEY FIRE GAVE UPDATED ADDRESS TO FIRE / THIS ISGOING TO BE NEAR THE POWER PLANT AT 3775 COURTWRIGHT RD X VIEW LN.
8042653 06/23/2008 1339 MISC 121 (10546) , S.O UNIT ADVISED ON SCENE NORTH END / OF EDISON POWER PLANT - SEESA PROBLEM NOT ABLE TO CONFIRM FIRE OR SMOKE/
8044143 06/29/2008 1857 TEXT 063 35MALE / SOLAR POWER PLANT - 395 2 MILE N/O JUNCTION / EXT. 700
8044143 06/29/2008 1857 TEXT 063 35MALE / SOLAR POWER PLANT - 395 2 MILE N/O JUNCTION / EXT. 700
8044143 06/29/2008 1910 MISC 047 (B6449) , SOLAR PLANT WILL MEET AT 58/HELENDALE
8046564 07/08/2008 1641 TEXT 050 TWO FIRES BURNING BY THE SOLAR PLANTS/ CHP IN AREA
8046564 07/08/2008 1659 MISC 044 (B6449) BE4 , IN AREA OF THE SOLAR PLANT UTL
8027875 07/08/2008 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 08046564 Sheriff Inc#: UNABLE TO LOCATE TWO FIRES BURNING BY THE SOLAR PLANTS/ CHP IN AREACHP[CRLF]
8067935 10/05/2008 1850 TEXT 033 POWER PLANT FIRE ALARM ACTIVATION
8067935 10/05/2008 1856 MISC 042 T251 , 2 STORY POWER PLANT NOTHING SHOWING
8074656 11/02/2008 1457 TEXT 127 TRANSFORMER FROM EDISON POWER PLANT EXPLODED, TRAFFIC LIGHTS IN THE AREA NOWOUT, CHP ADV WILL NOTIFY EDISON, ALSO REQ CO ROADS
TITLE:CAD Narrative [CRLF]CAD Inc #: 08074656 Sheriff Inc#: ELEC INCIDENT - OUTSIDE TRANSFORMER FROM EDISON POWER PLANT EXPLODED, TRAFFIC LIGHTS IN THE AREA NOW OU
8044802 11/02/2008 0001 REQ CO ROADSCHP[CRLF][CRLF]TITLE:ME10 [CRLF]At 1457 hours on Sunday November 2, 2008 we were dispatched to an electrical wiring/equipment problem. One unit was assigned to this incident. We arrive
8085249 12/17/2008 1720 TEXT 021 SOLAR PLANT, 64YM SOB
TITLE:CAD Narrative [CRLF]VERIZON WIRELESS 800 451 5242 Master Incident Number:09-011167 ON WIRELESS 800 451 BDC 09005650 Primary Jurisdiction Inc.#: BDC 09005650 Dispos
9005650 02/07/2009 0001 # 02/07/2009 18:56:29B8165 W/O SOLAR PLANT OFF RDWY IN DESERT 02/07/2009 18:53:54SYS WPH2 LAT:34.99401900 LON:-117.567379 METERS:57 %:095 02/07/2009 18:56:34B81
TITLE:CAD Narrative [CRLF]JULIE Master Incident Number:09-023604 BDC 09011634 Primary Jurisdiction Inc.#: BDC 09011634 Disposition:03/20/2009 15:05:58TS
9011634 03/20/2009 0001 15:05:52S3402 LARGE COLUMN OF BLACK SMOKE, POSS NEAR THE SOLAR PLANT 03/20/2009 15:05:58S3402 604 03/20/2009 15:06:16TSSIntRMS: Confire SunproExternal Case Number 'BD
TITLE:CAD Narrative [CRLF]CAD Master Incident Number:09-032897 BDC 09016020 Primary Jurisdiction Inc.#: COL 09001508 Disposition:04/20/2009 15:48:06TSS Alarm Permit #
9016020 04/20/2009 0001 BRUSH FIRE POWER PLANTS CUTTING BRUSH 04/20/2009 15:48:52B6449 1 ACRE 04/20/2009 15:49:20B6449 POWER PLANT WAS CUTTING BRUSH AND STARTED THE FIRE ABOUT 1 AC
TITLE:CAD Narrative [CRLF]VVSO Master Incident Number:09-046123 BDC 09022469 Primary Jurisdiction Inc.#: BDC 09022469 Disposition:06/02/2009 23:50:49TS
9022469 06/02/2009 0001 23:50:47H0664 S.O. ER ...REPT BONFIRE IN THE AREA OF THE POWER PLANT 06/02/2009 23:51:15TSSIntRMS: Confire SunproExternal Case Number 'BDC 09022469' added for San Bernardino County. 0
TITLE:CAD Narrative [CRLF]CAD Master Incident Number:09-086249 BDC 09041365 Primary Jurisdiction Inc.#: BDC 09041365 Disposition:09/15/2009 05:33:10TSS Alarm Permit #
9041365 09/15/2009 0000 ATTHE ENDOF HAR;PER DY LAKE BY THE SOLAR PLANT GOINFG NORTH OF HY 58 09/15/2009 05:32:59H0664 249 09/15/2009 05:33:48TSSIntRMS: Confire SunproExternal Case Number 'BDC 090413

EXB 319 - CSBFD 2010b - San Bernardino County Fire Department (TN 57268) SBCFD - Mitigation Response Material from June 2010. Submitted to CEC on 6/22/2010.

Emergency Response Matrix

A. Response Criteria		points	weighting factor	Kramer	Harper	Lucerne	Abengoa	Ivanpah	Solar 1	SolarTech	Solun	Strawbry	Boule KJ	LightSrc	Boule LV	RBT Spgs	Red Co	Axio JT	Axio EM
1. Inspections			0.10																
a.	minimal need	1								1	1	1	1	1	1	1	1	1	1
b.	average need	3		3	3	3													
c.	significant need	5					5	5	5										
			Net -->	*0.3*	*0.3*	*0.3*	*0.5*	*0.5*	*0.5*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*
2. Fire			0.50																
A. Quantity stored on-site			0.20																
a.	<1,000 gal	1				1		1		1	1	1	1	1	1	1	1	1	1
b.	>1000 and <100,000 gal	2																	
c.	>100,000 gal Therminol or High Volume High Pressure Hydrogen	5		5	5		5		5										
			Net -->	*1.00*	*1.00*	*0.20*	*1.00*	*0.20*	*1.00*	*0.20*	*0.20*	*0.20*	*0.20*	*0.20*	*0.20*	*0.20*	*0.20*	*0.20*	*0.20*
B. Fire/Explo	On site and off site consequence		0.30																
a.	Limited to site	1				1				1	1	1	1	1	1	1	1	1	1
b.	Potential for smoke and/or fire and/or	2																	
	minor blast effects	3			3			3	3										
c.	Potential for major fire/blast structure damage	4																	
	and/or injuries/fatalities off-site and/or major hwy disruption/closure	5		5			5												
			Net -->	*1.50*	*0.90*	*0.30*	*1.50*	*0.90*	*0.90*	*0.30*	*0.30*	*0.30*	*0.30*	*0.30*	*0.30*	*0.30*	*0.30*	*0.30*	*0.30*
3. HazMat			0.10																
A. Proximity to or potential for effect on all human receptors			0.05																
a.	no sig quant of hazmats or no potential for off-site impacts within 1/2 mile	1				1				1	1	1					1	1	
b.	<10 receptors within 1/2 mile	2											2	2	2	2			2
c.	>10 receptors within 1/2 mile	3			3		3												
d.	>50 within 1/2 mile	4																	
e.	>100	5		5				5	5										
			Net -->	*0.25*	*0.15*	*0.05*	*0.15*	*0.25*	*0.25*	*0.05*	*0.05*	*0.05*	*0.10*	*0.10*	*0.10*	*0.10*	*0.05*	*0.05*	*0.10*
B. Hazmat response time			0.05																
a.	<30 minutes	1						1	1	1	1	1	1	1	1	1	1	1	1
b.	30 - 60 minutes	3		3	3	3													
c.	>60 minutes	5					5												
			Net -->	*0.15*	*0.15*	*0.15*	*0.25*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*
4. Rescue First Alarm			0.15																
a.	< 30 minutes	1		1						1	1	1	1	1	1	1	1	1	1
b.	30 - 60 minutes	3			3	3	3												
c.	>60 minutes	5						5	5										
			Net -->	*0.15*	*0.45*	*0.45*	*0.45*	*0.75*	*0.75*	*0.15*	*0.15*	*0.15*	*0.15*	*0.15*	*0.15*	*0.15*	*0.15*	*0.15*	*0.15*
5. EMS Response of Certified Medic																			
EMS response time			0.15																
a.	No Staff on site	1								1	1	1					1	1	
b.	<15 minute resposne time	2				2							2	2	2	2			2
c.	>15 <30 minute response time	3			3		3												
d.	>30 and < 60 minute response time	4		4															
e.	>60 minute response time	5						5	5										
			Net -->	*0.60*	*0.45*	*0.30*	*0.45*	*0.75*	*0.75*	*0.15*	*0.15*	*0.15*	*0.30*	*0.30*	*0.30*	*0.30*	*0.15*	*0.15*	*0.30*
	Sum weighting factors		**1.00**																
TOTAL SCORE			======>	3.95	3.4	1.75	4.30	3.40	4.20	1.00	1.00	1.00	1.20	1.20	1.20	1.20	1.00	1.00	1.20

LOW Priority: additional resources and mitigation may be needed.	> or =1
MEDIUM Priority: additional resources and mitigation needed.	1.0 - 2.5
HIGH Priority: very significant need for additional resources and mitigation.	2.5 - 3.5
VERY HIGH Priority: urgent need for additional resources and mitigation.	>3.5

1
0.1
1
0.20
1
0.30
1
0.05
1
0.05
1
0.15
1
0.15
1.00

EXB 320 - CSBFD 2010c - San Bernardino County Fire Department (TN 57270) SBCFD - Log Notes from January 1999. Submitted to CEC on 6/22/2010.

[redacted]

WEDNESDAY JANUARY 10, 1990

0730 SHIFT CHANGE
"A" ON DUTY — "C" OFF DUTY
CAPT. G. MCPHEE — CAPT. M. MISSILDINE
ENG. S. MAIN — ENG. M. SYLVIA
COMMENCE STATION ROUTINE

0800 APPARATUS MAINTENANCE SHIFT CHANGE CHECKS
AM 2 hr. & ROAD TEST E-17 OK S-17 OK BC OK V/LS OK

0850 FIRE # 953
NAME: LUZ CORPORATION
HARPER LAKE ROAD
SAN BERNADINO, COUNTY
TYPE: STRUCTURE
LOSS: UNKNOWN (AT LEAST 24 MILLION)
EQUIP & CREW: E-17 MCPHEE & MAIN E.A.F.B. FOAM TRAILER
CRASH TRUCK # 2 MANY UNITS FROM SAN BERDO & C.D.F. – HELENDALE, HINKLEY, VICTORVILLE, APPLE VALLEY, ADCANTO
OVERHEAD: CDF B/C
CAUSE: UNKNOWN
SUMMARY: EXPLOSION OR FIRE IN HEATING UNITS of SOLAR GENERATING PLANT. – E17 WAS ASSIGNED NORTH SIDE of PLANT COOLING LARGE CONDENSING UNIT – LAID PARALLEL LINES TO MONITOR AND PUMPED APPROX. 360,000 GAL WATER – CREW WAS EXPOSED TO RUN-off WATER & AIR BORN CHEMICAL "THERMONALL" (SPELLING MAY BE WRONG) BLANKET EXPOSURE RECORD WILL BE SUMMITED BY C.D.F. – OPERATIONS & SAFETY of CREW 17 WERE HAMPERED BY LACK of COMMUNICATIONS with C.D.F. & SAN BERDO FIRE DEPTS.
FIRE 15 3/4 hr.

0933 E-14-2 GAETA & LILLARD 19 COVER

1551 MEDICAL AID # 985
M.A. 1 hr. NAME: [redacted]
LOCATION: [redacted]
BORON

EXB 321 - CSBFD 2010d - San Bernardino County Fire Department (TN 57271) SBCFD - Activity Log Submitted to CEC on 6/22/2010.

FACILITY ID	FACILITY NAME	FACILITY ADDRESS	FACILITY CITY	DATE OF ACTIVITITY	TYPE OF ACTIVITY	TIME (HOURS)	NOTES
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	5/19/2008	INSPECTION PREP	0.5	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	6/9/2008	INSPECTION PREP	1	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	6/9/2008	ROUTINE INSPECTION	8	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	6/13/2008	INSPECTION FOLLOW UP	2.5	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	6/24/2008	INSPECTION FOLLOW UP	9	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	7/8/2008	INSPECTION FOLLOW UP	0.25	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	9/9/2008	INSPECTION FOLLOW UP	0.66	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	6/12/2009	INSPECTION FOLLOW UP	1	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	7/6/2009	COMPLAINT/RELEASE REPORT	0	NOTIFICATION ONLY
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	12/8/2009	INSPECTION FOLLOW UP	1.4	**24 TOTAL HOURS**
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/24/2003	MEETING RE: RELEASE REPOR	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/24/2005	RELEASE FOLLOW UP	2	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/25/2005	RELEASE FOLLOW UP	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/25/2005	ROUTINE INSPECTION	6.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/26/2005	ENFORCEMENT ACTIVITIES	5.25	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/27/2005	ENFORCEMENT ACTIVITIES	4	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/27/2005	INSPECTION FOLLOW UP	0.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/28/2005	MEETING RE: INSPECTION	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/31/2005	ENFORCEMENT ACTIVITIES	3	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	11/1/2005	ENFORCEMENT ACTIVITIES	0.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	11/7/2005	BUSINESS PLAN REVIEW		
FA0006102	SEGS III-VII	41100 HWY 395	BORON	11/7/2005	INSPECTION FOLLOW UP	3.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	12/19/2005	BUSINESS PLAN REVIEW	4.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/9/2006	COMPLAINT/RELEASE REPORT	0	NOTIFICATION ONLY
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/15/2006	COMPLAINT/RELEASE REPORT	0	NOTIFICATION ONLY
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/16/2006	COMPLAINT/RELEASE REPORT	0	NOTIFICATION ONLY
FA0006102	SEGS III-VII	41100 HWY 395	BORON	3/14/2006	UST PLAN CHECK	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	4/11/2006	UST FILE FOLLOW UP	0.33	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	4/13/2006	UST FILE FOLLOW UP	0.1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	4/13/2006	AST INSTALL	4	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/27/2007	COMPLAINT/RELEASE REPORT	0	NOTIFICATION ONLY
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/27/2007	ENFORCEMENT ACTIVITIES	0.25	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/10/2007	BUSINESS PLAN REVIEW	4	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/12/2007	INSPECTION FOLLOW UP	0.16	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/16/2007	ENFORCEMENT ACTIVITIES	6	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/16/2007	EMERGENCY RESPONSE	12	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/20/2007	ENFORCEMENT ACTIVITIES	1.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	9/14/2007	ENFORCEMENT ACTIVITIES	0.25	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	9/21/2007	BUSINESS PLAN REVIEW	4.25	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/11/2008	INSPECTION FOLLOW UP	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/15/2008	ROUTINE INSPECTION	9	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/16/2008	INSPECTION FOLLOW UP	8	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/22/2008	INSPECTION FOLLOW UP	7	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/29/2008	ENFORCEMENT ACTIVITIES	0.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/4/2008	INSPECTION FOLLOW UP	4	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/26/2008	INSPECTION FOLLOW UP	0.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	4/30/2008	ENFORCEMENT ACTIVITIES	2.9	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/24/2008	INSPECTION FOLLOW UP	1	

FA0006102	SEGS III-VII	41100 HWY 395	BORON	8/28/2008	INSPECTION FOLLOW UP	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	3/20/2009	ENFORCEMENT ACTIVITIES	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	5/5/2009	ENFORCEMENT ACTIVITIES	1.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	5/11/2009	ENFORCEMENT ACTIVITIES	8	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	6/23/2009	ENFORCEMENT ACTIVITIES	4.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	6/24/2009	ENFORCEMENT ACTIVITIES	1.3	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	6/25/2009	ENFORCEMENT ACTIVITIES	4	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	6/26/2009	ENFORCEMENT ACTIVITIES	3	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	6/30/2009	ENFORCEMENT ACTIVITIES	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	8/23/2009	ENFORCEMENT ACTIVITIES	0.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	12/1/2009	ENFORCEMENT ACTIVITIES	1	**128 HOURS TOTAL**
FA0006103	SEGS VII & IX	43880 HARPER LAKE	HINKLEY	5/13/2006	BUSINESS PLAN REVIEW	1.5	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	6/24/2004	AST PLAN CHECK/INSTALL	1.5	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	8/19/2004	UST INSPECTION	2	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	10/12/2004	AST PLAN CHECK/INSTALL	8	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	12/21/2004	UST REMOVAL FOLLOW UP	4.5	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	4/14/2005	UST REMOVAL FOLLOW UP	6.3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	5/12/2005	UST REMOVAL FOLLOW UP	0.16	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	5/17/2005	AST PLAN CHECK/INSTALL	1	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	11/30/2005	UST REMOVAL FOLLOW UP	4.5	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	12/16/2005	ROUTINE INSPECTION	6	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/8/2007	INSPECTION FOLLOW UP	1	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	4/10/2007	MEETING W/ CONSULTANT	0.3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	4/11/2007	MEETING W/ CONSULTANT	0.2	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	4/16/2007	UST REMOVAL FOLLOW UP	6.3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	7/11/2007	BUSINESS PLAN REVIEW	1.5	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	7/12/2007	INSPECTION FOLLOW UP	0.16	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	7/12/2007	BUSINESS PLAN REVIEW	6.3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	10/5/2007	BUSINESS PLAN REVIEW	3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	1/25/2008	INSPECTION FOLLOW UP	2.6	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/11/2008	INSPECTION FOLLOW UP	11.3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/12/2008	ROUTINE INSPECTION	9.6	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/14/2008	ENFORCEMENT ACTIVITIES	0.25	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/15/2008	INSPECTION FOLLOW UP	5.2	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/19/2008	INSPECTION FOLLOW UP	7	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/25/2008	EMERGENCY RESPONSE	8	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	3/19/2008	INSPECTION FOLLOW UP	0.42	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	5/10/2008	UST PLAN CHECK	3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	7/23/2008	UST PAPER WORK REVIEW	2	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	7/29/2008	UST PAPER WORK REVIEW	1	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	3/23/2008	ENFORCEMENT ACTIVITIES	0.5	**105 HOURS TOTAL**
FA0011642	SOLAR TWO	37100 SANTA FE	DAGGETT				

EXB 322 - CSBFD 2010e - San Bernardino County Fire Department (TN 57273) SBCFD - Plan Reviews at Solar Plants. Submitted to CEC on 6/22/2010.

Below is the only Planning and Engineering information found on any of the addresses you provided for planning and engineering:

FA0006101 – Sunray Energy – 35100 Santa Fe – Daggett
No Record

FA0006102 – SEGS III-VII – 41100 Hwy 395 – Boron
Waterline plan reviewed in 11/07, file 26688
Alarm plan approved 8/11/09, file 30483
Alarm plan currently in plan check, file 31003 (@ Victorville office)
Alarm Notification plan currently in plan check, file 31004 (@ Victorville office)

FA0006103 – SEGS VII & IX – 43880 Harper Lake – Hinkley
Aboveground Tank approved 5/5/09, file 29308

FA0011642 – Solar Two – 37100 Santa Fe – Daggett
No Record

FA0002037 – Coolwater Generating Station - 37000 Santa Fe – Daggett
No Record

FA0011642 – Solar Two Project – 37110 E Santa Fe – G=Daggett
No Record

EXB 323 - CSBFD 2010f - San Bernardino County Fire Department (TN 57285) SBCFD - Response Log 1998 to 2009. Submitted to CEC on 6/22/2010.

ccc/bdc number	date	time	remarks
98010253	02/18/1998	1041	MISC 040 , HARPER LAKE RD AT THE LUZ SOLAR PLANT.
98012783	03/01/1998	0931	TEXT 031 FX LEG / MEET RP AT POWER PLANT
98032684	06/09/1998	1336	TEXT 053 UNKN TYPE ALARM AT THE POWER PLANT / PER LLU SECURITY
98060460	10/19/1998	0844	MISC 070 (M4203) E125 , FIRE AT LUZ SOLAR PLANT//ADVISED OF PERMIT REQUIREMENTS
98063549	11/04/1998	0703	TEXT 050 SOLAR PLANT // LARGE FLAMES // LOTS OF BLACK SMOKE
98064220	11/07/1998	1341	DISP 061 (H0664) E40 AMR31 , AT THE POWER PLANT....SOMEONE WILL DIRECT
98064225	11/07/1998	1408	TEXT 090 BACK INJ///LZ AT THE POWER PLANT AT THE HELOSPOT....CONTACT BE48 ON CALCO RD...TB 4565 F7
99011628	02/26/1999	1812	CHGLOC 033 SOLAR PLANT/ZZZ TO 35100 SANTE FE
99019822	04/07/1999	2221	TEXT 031 UNIV POWER PLANT - POSS HEART -
99025686	05/07/1999	1208	TEXT 041 ELECTRICAL FIRE AT THE MIDDLE POWER PLANT
99025843	05/08/1999	0620	TEXT 054 MALE FELL BACKWARDS/HIT HEAD ON RAILING/AT POWER PLANT
99030487	05/31/1999	1430	MISC 044 , TAKE THE Y NORTH AWAY FROM THE POWER PLANT
99038079	07/06/1999	2206	MISC 068 (10546) , S/O ADVISES ARCING LINES BEHIND POWER PLANT AT 810 3RD ST.
99051027	09/15/1999	0604	ADVISD 083 PASSING A KIDNEY STONE/ MOJAVE SIPHON POWER PLANT 16001 HWY 173/ DSRT COM MADVISED
13824	03/12/2000	1724	TEXT 029 THE POWER PLANT/ GEN FIRE ALM
25326	05/15/2000	1103	TEXT 046 FIRE AT THE KRAMER SOLAR PLANT, E89 RESPONDING
25326	05/15/2000	1237	MISC 095 (H2744) , DAVE RIB, AN EMPLOYEE REP SOLAR PLANT GAVE THE FOLLOWINGINFORMATION ON THE INCIDENT.
25326	05/15/2000	1245	MISC 377 (H2744) , FIRE WAS IN A PUMP LOCATED IN SEGS (SOLAR ELECTRICAL GENERATINGSYSTEMS) "FIVE". THERE ARE 5 SEGS IN THIS SOLAR PLANT. FIRE WAS CAUSED BY AFLASH AND DOLLAR L PER DAVE RIB.. ANYMEDIA REQ FOR MORE INFO, THEY CAN CONTACT MR RIB AT THE PLANT AT760-762-5562 EXT 246...FIRE WAS CONTAINED BY ON SITE FIRE APPARATUS. NO HAZMAT INVOLVED.
31488	06/16/2000	1745	MOVEOS 023 (F1435) E53 SOLARION IC
50537	09/15/2000	1015	TEXT 043 BUS-SOLAR INK/MANUAL PULL ON FIRE COMMAND 2
59683	11/01/2000	0017	TEXT 021 POWER PLANT EXPLOSION
1001805	01/09/2001	0342	MISC 095 (M4203) E31 , CORNER OF BUSH AND O ST....2ND REPORT ADVISING POWER POLE ONFIRE NOT POWER PLANT
1012121	02/26/2001	0147	TEXT 075 SOLAR PLANT - MALE 36/ AMPUTATED FINGERS/ SUBJ BEING BROUGHT TO MAIN OFFICE
1023952	04/25/2001	1438	TEXT 046 AT SOLARIS HOLDING//ZONE 5 WATERFLOW 2ND FLOOR
1029392	05/21/2001	1735	MOVEOS 025 (H2744) AC4101 "SOLAR IC"
1029392	05/21/2001	2120	MOVEOS 022 (A7909) BC140 SOLAR IC
1029392	05/21/2001	2127	MISC 063 (A7909) , PER NOAH AT DES COMM BC140 HAS NOW ASSUMED "SOLAR IC"
1029392	05/21/2001	2319	MOVEOS 022 (C0662) C4100 SOLAR IC
1038564	07/01/2001	1708	TEXT 053 GEN FIRE AT THE POWER PLANT TB 647-B1 CROSS TAYLOR ST
1042388	07/17/2001	1029	TEXT 038 SOLAR PLANT IN DAGGETT..POSS STRUCTURE
1045426	07/31/2001	1436	TEXT 064 SOLAR LINK INTL...ME138 ON FIRE COMMAND 2 ..REQ E74..MANUAL PULL
1046896	08/07/2001	1334	TEXT 073 GENERAL FIRE ALARM AT THE POWER PLANT / ALSO SHOWS ADRESS OF 11040 TAYLOR
1048135	08/13/2001	0643	TEXT 052 COOL WATER SOLAR PLANT- FALL VICTIM FROM 40 FT TOWER
1048141	08/13/2001	0709	TEXT 048 FALL VICT 3762 D1//SOLAR PLANT AIR OPS ON CALCOR
1064022	10/24/2001	0545	TEXT 049 TWO LARGE BLAST NEAR THE POWER PLANT, NO ADD INFO
1068227	11/12/2001	2025	TEXT 101 PASSERBY SAW A FLASH AT THE POWER PLANT - POWER WENT OFF MOMENTAIRLY THENCAME BACK ON - SEES NO FIRE
2007551	02/05/2002	1658	TEXT 044 POWER PLANT X-ANDERSON /GENERAL FIRE ALARM /
2012325	02/26/2002	0610	TEXT 028 SOUTHWEST END OF POWER PLANT
2013243	03/02/2002	0743	TEXT 040 SOLAR PLANT FIRE, LARGE OUTSIDE OIL FIRE
2024007	04/21/2002	1042	TEXT 105 NEAR SOLAR PLANT...POSS CROSS OF HARPER LAKE RD X ROY...OUT OF CONTROL BURNJOB....RP PHONE # 760-7625424
2036894	06/19/2002	0014	MISC 072 (B2816) , LL ON CALL FOR WATER PAGED TO CALL THE DANA AT THE POWER PLANT
2037295	06/20/2002	1733	TEXT 044 1/2 E OF SOLAR PLANT...LARGE COLUMN OF SMOKE
2041718	07/08/2002	1658	TEXT 064 POWER PLANT..GENERAL FIRE....PERSON TO MEET YOU AT UNIVERSITY CT
2041887	07/09/2002	1334	TEXT 059 POWER PLANT...GENERAL FIRE ALARM MADE ACCESS OFF UNIVERSITY
2044039	07/18/2002	1928	TEXT 043 AT THE POWER PLANT, GEN FIRE ALARM NO RESET
2052135	08/24/2002	2200	NEWLOC 026 (F1435) RED SOLAR INCIDENT
2052135	08/24/2002	2202	MOVEOS 021 (F1435) E125 SOLAR IC
2052135	08/24/2002	2220	MOVEOS 022 (F1435) BC149 SOLAR IC

2059978 09/28/2002 2328 TEXT 085 NEAR AZ 95 AT COURTRIGHT, NEAR THE SOUTH POINT POWER PLANT, REQ AMBULANCE.TB 352 D10
2075159 12/09/2002 1118 MISC 091 (A7910) ME62 , EDISON POWER PLANT NOTHING SHOWING DID HAVE AN EXPLOSION WITHA POWER OUTAGE
3014343 03/04/2003 1439 TEXT 018 AT THE POWER PLANT
3022802 04/12/2003 1559 TEXT 085 NEAR LG POWER PLANT, TOWARDS END OF ESCONDIDO, NEAR LARGE BUSH, NUMEROUSDRUMS DUMPED
3029305 05/12/2003 2012 TEXT 118 E911 TIME: 201002 SEVERAL EXPLOSIONS HEARD AT EDISON SUB POWER PLANT ACROSSFROM THIS ADDRESS :ELECTRICITY OUT IN AREA
3044743 07/15/2003 1517 TEXT 026 POWER PLANT SMOKE DETECTOR
3073855 11/14/2003 1302 TEXT 086 POWER PLANT-GENERAL FIRE ALARM-POSS SMOKE FROM A WELDER OR DUST IN THE AREA-RP UNSURE
3078657 12/05/2003 1422 TEXT 038 POWER PLANT..GENERAL ALARM..X PROSPECT
3084807 12/29/2003 0812 TEXT 061 E911 TIME: 081017 RP SEE SMOKE BEHIND THE FONTANA POWER PLANT
3085269 12/31/2003 0947 TEXT 122 PROSPECT BTWN ANDERSON AND THE FIRST DRIVEWAY ON THE NORTH SIDE OF THESTREET \\ WATER LEAKING INTO THE POWER PLANT TUNNEL
4015231 03/08/2004 1900 TEXT 070 LARGE FLASH OF LIGHT SEEN FROM THE POWER PLANT / POSS TRANSFORMER FIRE
4037936 06/17/2004 1131 TEXT 089 E911 TIME: 113004 AT THE CONSTRUCTION AREA OF THE POWER PLANT, 40 Y/O MAN,POSSIBLE HEART
4045870 07/20/2004 1017 TEXT 060 E911 TIME: 101550 40Y FEM,FALL ARM INJ/EMPLOYEE, POWER PLANT
4060317 09/20/2004 1931 TEXT 091 NEAR POWER PLANT, MC T/C 1 MALE SUBJ, REQ'G AMB, BETWEEN NORTH DYKE ENTRANCEAND CORTWRIGHT
4067327 10/20/2004 2218 MISC 040 (B5541) E4 , STEAM FROM POWER PLANT - MI
4071679 11/09/2004 0725 TEXT 126 E911 TIME: 072133 ILL 51 YOM, HI BP, AT THE POWER PLANT. MEET RP IN A SMALLWHT P/U AT THE CORNER OF SAN BERNARDINO & MTN VIEW
4072656 11/13/2004 2126 MISC 078 (O0407) E127 , ALL THE POWER IS OFF ST THE POWER PLANT - BACK UP LIGHTS AREON
4075684 11/27/2004 0920 MISC 048 (A7909) E40 , STAGE AT POWER PLANT AND ESCONDIDO
4075684 11/27/2004 0924 MISC 069 (A7909) E40 , NEED A/S ME301 GC CALCOR LZ ON ESONDIDO, BY POWER PLANT
5007686 02/01/2005 0923 TEXT 034 POWER PLANT GENERAL BLG FIRE ALARM
5041246 06/25/2005 1324 TEXT 164 ON 58 10 MILES EAST OF KRAMER JUNCTION/RP WILL MEET ON RED HONDA DIRT BIKENEAR SOLAR PANELS/50 YOM OFF RD TC/DISORIENTED/INJURED RIGHT WRISTS ANDSHOULDER/HIT HEA
5047481 07/18/2005 0841 ADVISD 090 POWER PLANT UNDER CONTRUCTION/POSS HEART, X OF THE SANTA ANA WASH, CALLGIVEN TO CITY FIRE
5047482 07/18/2005 0845 MISC 021 (B5541) , POWER PLANT
5047854 07/19/2005 1554 CHGLOC 051 KECK SOLAR PLANT, DAGGETT TO 35100 SANTA FE ST ,DAG
5047854 07/19/2005 1604 MISC 168 (H2744) , | VEG FIRE/LIGHTNING STRIKES- DAGGETT AREA/OLD SEGS 1 SOLAR PLANT-70 PLUS ACRES AT THIS TIME AT THE RIVER BOTTOM.HAS BEEN SENT TO THEFOLLOWING PAGER(S):9911
5050516 07/30/2005 0347 TEXT 037 EXPLOSION FROM A POWER PLANT BUILDING
5054917 08/17/2005 1029 TEXT 095 AT THE POWER PLANT, FEMALE WAS FOUND ON PROPERTY, ALOC, SHE WALKED TO LOCFROM HER DISABLED VEH
5069994 10/21/2005 1759 TEXT 143 CHECK AT THE SOLAR PLANT- REPORTS OF CLOUD ABOVE IT- PLANT STATES ITS HEATTRANSFER FLUID- PASSERBYS ARE HAVING ISSUES- IRRITATING TO THE EYES-
5073831 11/08/2005 0232 MISC 042 (F1435) DES1 , ACROSS FROM THE POWER PLANT
5085786 12/29/2005 1751 TEXT 136 FLAMES FROM VEG ON AN OLD RANCH 8 MILES NORTH OF 58 ON HARPER LAKE RD/ RPCALLING FROM THE SOLAR PLANT AND IS VISIBLE FROM THIS LOCATION
6002347 01/09/2006 1807 TEXT 118 SOLAR PLANT, NOTIFICATION ONLY 75 GAL MONSANO VP1 HEAT TXFER FLUID SPILL,CLEAN UP CREW OS, X282 ALSO CELL #7609649862
6005946 01/25/2006 1443 TEXT 082 GENERATOR ACTIVATION AT BLDG JUST OUTSIDE POWER PLANT. X-ANDERSON.. DID NOTVERIFY
6008209 02/04/2006 1627 TEXT 094 E911 TIME: 162501 *STAND BY* SO ENRT // RIVERSIDE CANAL POWER PLANT / 5150MALE COMP OF PAIN /
TITLE:CAD Narrative [CRLF]CAD Inc #: 06008209 Sheriff Inc#: ALS MEDICAL AID E911 TIME: 162501 *STAND BY* SO ENRT // RIVERSIDE CANAL POWER PLANT / 5150 MALE COMP OF PAI
6004975 02/04/2006 0001 [CRLF]At 1627 hours on Saturday February 4, 2006 we were dispatched to an EMS call. Two units were assigned to this incident. Two personnel responded. We arrived on scene at 1633 hours and cleared at 1653 hours. Th
6010688 02/15/2006 1158 TEXT 069 RP ADV CHEM SPRAY OVER US 395 FROM SOLAR PLANT JNO KRAMER JCT, CHP ER
6010688 02/15/2006 1206 MISC 141 (F1435) , RP HAS LEFT THE AREA, GOING TOWARDS ADELANTO, THIS WAS A GAS, NOTA LIQUID, WAS NEAR THE SOLAR PLANT, RP CELL PHONE IS 949-212-2548
6006421 02/15/2006 0000 TITLE:CAD Narrative [CRLF]CAD Inc #: 06010688 Sheriff Inc#: HAZARDOUS MATERIALS RP ADV CHEM SPRAY OVER US 395 FROM SOLAR PLANT JNO KRAMER JCT, CHP ER[CRLF]
6011266 02/18/2006 0231 TEXT 029 SMOKE COMING FROM POWER PLANT
6022083 04/06/2006 1440 MISC 066 (H2730) , RED BC STS POSSIBLY NEAR THE POWER PLANT NEAR RED BORDER
6034449 05/30/2006 1136 TEXT 033 GEN FIRE ALARM AT THE POWER PLANT
6034449 05/30/2006 1146 MISC 044 (M4694) MS251 , POWER PLANT NO9THING SHOWING
6038705 06/17/2006 0956 TEXT 029 VEG FIRE NEAR THE POWER PLANT
6075556 11/18/2006 0930 MISC 163 (C5205) , *** PER RO: HOLE IS ON HELENDALE BTWN STATE 58 AND SILVER LAKES,RP WAS CALLING FROM THE SOLAR POWER PLANT, MAKE CONTACT W/ANYONE AT CB# IFANY QUESTIONS
6075556 11/18/2006 0930 MISC 163 (C5205) , *** PER RO: HOLE IS ON HELENDALE BTWN STATE 58 AND SILVER LAKES,RP WAS CALLING FROM THE SOLAR POWER PLANT, MAKE CONTACT W/ANYONE AT CB# IFANY QUESTIONS
7017023 03/10/2007 2026 ADVISD 203 REF CAD #014, FEM SUBJ FROM INC WAS W/ 2 MALE SUBJ ALSO LOST SOMEWHERE ONTHE BASE PAST THE SOLAR PANELS IN A VAN OR MOTORHOME W/2 FLATS, PER SBSO RP#714421664
7012220 03/22/2007 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 07019896 Sheriff Inc#: FALSE ALARM FONTANA TRUCK STOP: AIR DUCT SMOKE DET/ PREM 909-829-6671SOLAR SYSTEM 455 8002280580[
7027251 04/24/2007 1245 TEXT 024 FIRE ALARM - POWER PLANT
7055255 08/19/2007 1020 MISC 069 S4 , MET WITH RP FROM SOLAR PLANT, DIRECTING FURTHER TO POSS LOCATION
7062835 09/19/2007 2310 TEXT 039 IN POWER PLANT / RP WILL MEET AND GUIDE

7066984 10/08/2007 1900 MISC 053 (B8165) BP125 , IN AREA - MAKING ACESS TO SOLAR PLANT
7070089 10/22/2007 0528 ONSCNE 062 (B8165) C-3600 , BEST ACCESS GRASS VALLEY RD TO POWER PLANT RD
7084685 12/22/2007 1147 TEXT 020 NEAR THE POWER PLANT
TITLE:CAD Narrative [CRLF]CAD Inc #: 07084685 Sheriff Inc#: TC W/NO INJURIES NEAR THE POWER PLANTRIVER MEDICAL RHONDA 7025214818[CRLF][CRLF]TITLE:New
7052032 12/22/2007 0000 Saturday December 22, 2007 we were dispatched to a vehicle accident with no injuries. Four units were assigned to this incident. We arrived on scene at 1159 hours and cleared at 1215 hours. The incident occurred at On F
8012798 02/20/2008 0931 ADVISD 155 STATES HE IS LOOKING ACROSS THE RIVER AND STATES THERE IS A VEG FIRE NEXT TOTHE POWER PLANT. ADV MOJAVE VLY WHO STATES THEY HAVE SEVERAL BURNS IN THE AREA
8020933 03/25/2008 2227 TEXT 042 ELECTRICAL POWER PLANT / RP # 909-208-6521
8012751 03/25/2008 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 08020933 Sheriff Inc#: UNABLE TO LOCATE ELECTRICAL POWER PLANT / RP # 909-208-6521SBSO[CRLF]
8031076 05/08/2008 1407 TEXT 041 VEH INTO BLDG, POWER PLANT, BLUE CORVETTE
8018734 05/08/2008 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 08031076 Sheriff Inc#: TC W/EXTRICATION NEEDED VEH INTO BLDG, POWER PLANT, BLUE CORVETTECHP TXFER 9098253414[CRLF]
8038613 06/07/2008 1641 MISC 068 (D8247) , PER MOHAVE VALLEY THIS IS GOING TO BE NEAR THE POWER PLANT
8038613 06/07/2008 1653 MISC 138 (D8247) , PER MOHAVE VALLEY FIRE GAVE UPDATED ADDRESS TO FIRE / THIS ISGOING TO BE NEAR THE POWER PLANT AT 3775 COURTWRIGHT RD X VIEW LN.
8042653 06/23/2008 1339 MISC 121 (10546) , S.O UNIT ADVISED ON SCENE NORTH END / OF EDISON POWER PLANT - SEESA PROBLEM NOT ABLE TO CONFIRM FIRE OR SMOKE/
8044143 06/29/2008 1857 TEXT 063 35MALE / SOLAR POWER PLANT - 395 2 MILE N/O JUNCTION / EXT. 700
8044143 06/29/2008 1857 TEXT 063 35MALE / SOLAR POWER PLANT - 395 2 MILE N/O JUNCTION / EXT. 700
8044143 06/29/2008 1910 MISC 047 (B6449) , SOLAR PLANT WILL MEET AT 58/HELENDALE
8046564 07/08/2008 1641 TEXT 050 TWO FIRES BURNING BY THE SOLAR PLANTS/ CHP IN AREA
8046564 07/08/2008 1659 MISC 044 (B6449) BE4 , IN AREA OF THE SOLAR PLANT UTL
8027875 07/08/2008 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 08046564 Sheriff Inc#: UNABLE TO LOCATE TWO FIRES BURNING BY THE SOLAR PLANTS/ CHP IN AREACHP[CRLF]
8067935 10/05/2008 1850 TEXT 033 POWER PLANT FIRE ALARM ACTIVATION
8067935 10/05/2008 1856 MISC 042 T251 , 2 STORY POWER PLANT NOTHING SHOWING
8074656 11/02/2008 1457 TEXT 127 TRANSFORMER FROM EDISON POWER PLANT EXPLODED, TRAFFIC LIGHTS IN THE AREA NOWOUT, CHP ADV WILL NOTIFY EDISON, ALSO REQ CO ROADS
TITLE:CAD Narrative [CRLF]CAD Inc #: 08074656 Sheriff Inc#: ELEC INCIDENT - OUTSIDE TRANSFORMER FROM EDISON POWER PLANT EXPLODED, TRAFFIC LIGHTS IN THE AREA NOW OU
8044802 11/02/2008 0001 REQ CO ROADSCHP[CRLF][CRLF]TITLE:ME10 [CRLF]At 1457 hours on Sunday November 2, 2008 we were dispatched to an electrical wiring/equipment problem. One unit was assigned to this incident. We arrive
8085249 12/17/2008 1720 TEXT 021 SOLAR PLANT, 64YM SOB
TITLE:CAD Narrative [CRLF]VERIZON WIRELESS 800 451 5242 Master Incident Number:09-011167 ON WIRELESS 800 451 BDC 09005650 Primary Jurisdiction Inc.#: BDC 09005650 Dispos
9005650 02/07/2009 0001 # 02/07/2009 18:56:29B8165 W/O SOLAR PLANT OFF RDWY IN DESERT 02/07/2009 18:53:54SYS WPH2 LAT:34.99401900 LON:-117.567379 METERS:57 %:095 02/07/2009 18:56:34B81
TITLE:CAD Narrative [CRLF]JULIE Master Incident Number:09-023604 BDC 09011634 Primary Jurisdiction Inc.#: BDC 09011634 Disposition:03/20/2009 15:05:58TS
9011634 03/20/2009 0001 15:05:52S3402 LARGE COLUMN OF BLACK SMOKE, POSS NEAR THE SOLAR PLANT 03/20/2009 15:05:58S3402 604 03/20/2009 15:06:16TSSIntRMS: Confire SunproExternal Case Number 'BD
TITLE:CAD Narrative [CRLF]CAD Master Incident Number:09-032897 BDC 09016020 Primary Jurisdiction Inc.#: COL 09001508 Disposition:04/20/2009 15:48:06TSS Alarm Permit #
9016020 04/20/2009 0001 BRUSH FIRE POWER PLANTS CUTTING BRUSH 04/20/2009 15:48:52B6449 1 ACRE 04/20/2009 15:49:20B6449 POWER PLANT WAS CUTTING BRUSH AND STARTED THE FIRE ABOUT 1 AC
TITLE:CAD Narrative [CRLF]VVSO Master Incident Number:09-046123 BDC 09022469 Primary Jurisdiction Inc.#: BDC 09022469 Disposition:06/02/2009 23:50:49TS
9022469 06/02/2009 0001 23:50:47H0664 S.O. ER ...REPT BONFIRE IN THE AREA OF THE POWER PLANT 06/02/2009 23:51:15TSSIntRMS: Confire SunproExternal Case Number 'BDC 09022469' added for San Bernardino County. 0
TITLE:CAD Narrative [CRLF]CAD Master Incident Number:09-086249 BDC 09041365 Primary Jurisdiction Inc.#: BDC 09041365 Disposition:09/15/2009 05:33:10TSS Alarm Permit #
9041365 09/15/2009 0000 ATTHE ENDOF HAR;PER DY LAKE BY THE SOLAR PLANT GOINFG NORTH OF HY 58 09/15/2009 05:32:59H0664 249 09/15/2009 05:33:48TSSIntRMS: Confire SunproExternal Case Number 'BDC 090413

EXB 324 - CSBFD 2010g - San Bernardino County Fire Department (TN 57287) SBCFD - Haz Mat Inspections. Submitted to CEC on 6/22/2010.

FACILITY ID	FACILITY NAME	FACILITY ADDRESS	FACILITY CITY	DATE OF ACTIVITITY	TYPE OF ACTIVITY	TIME (HOURS)	NOTES
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	5/19/2008	INSPECTION PREP	0.5	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	6/9/2008	INSPECTION PREP	1	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	6/9/2008	ROUTINE INSPECTION	8	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	6/13/2008	INSPECTION FOLLOW UP	2.5	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	6/24/2008	INSPECTION FOLLOW UP	9	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	7/8/2008	INSPECTION FOLLOW UP	0.25	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	9/9/2008	INSPECTION FOLLOW UP	0.66	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	6/12/2009	INSPECTION FOLLOW UP	1	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	7/6/2009	COMPLAINT/RELEASE REPORT	0	NOTIFICATION ONLY
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	12/8/2009	INSPECTION FOLLOW UP	1.4	**24 TOTAL HOURS**
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/24/2003	MEETING RE: RELEASE REPOR	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/24/2005	RELEASE FOLLOW UP	2	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/25/2005	RELEASE FOLLOW UP	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/25/2005	ROUTINE INSPECTION	6.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/26/2005	ENFORCEMENT ACTIVITIES	5.25	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/27/2005	ENFORCEMENT ACTIVITIES	4	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/27/2005	INSPECTION FOLLOW UP	0.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/28/2005	MEETING RE: INSPECTION	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/31/2005	ENFORCEMENT ACTIVITIES	3	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	11/1/2005	ENFORCEMENT ACTIVITIES	0.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	11/7/2005	BUSINESS PLAN REVIEW		
FA0006102	SEGS III-VII	41100 HWY 395	BORON	11/7/2005	INSPECTION FOLLOW UP	3.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	12/19/2005	BUSINESS PLAN REVIEW	4.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/9/2006	COMPLAINT/RELEASE REPORT	0	NOTIFICATION ONLY
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/15/2006	COMPLAINT/RELEASE REPORT	0	NOTIFICATION ONLY
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/16/2006	COMPLAINT/RELEASE REPORT	0	NOTIFICATION ONLY
FA0006102	SEGS III-VII	41100 HWY 395	BORON	3/14/2006	UST PLAN CHECK	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	4/11/2006	UST FILE FOLLOW UP	0.33	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	4/13/2006	UST FILE FOLLOW UP	0.1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	4/13/2006	AST INSTALL	4	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/27/2007	COMPLAINT/RELEASE REPORT	0	NOTIFICATION ONLY
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/27/2007	ENFORCEMENT ACTIVITIES	0.25	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/10/2007	BUSINESS PLAN REVIEW	4	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/12/2007	INSPECTION FOLLOW UP	0.16	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/16/2007	ENFORCEMENT ACTIVITIES	6	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/16/2007	EMERGENCY RESPONSE	12	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/20/2007	ENFORCEMENT ACTIVITIES	1.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	9/14/2007	ENFORCEMENT ACTIVITIES	0.25	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	9/21/2007	BUSINESS PLAN REVIEW	4.25	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/11/2008	INSPECTION FOLLOW UP	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/15/2008	ROUTINE INSPECTION	9	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/16/2008	INSPECTION FOLLOW UP	8	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/22/2008	INSPECTION FOLLOW UP	7	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/29/2008	ENFORCEMENT ACTIVITIES	0.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/4/2008	INSPECTION FOLLOW UP	4	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/26/2008	INSPECTION FOLLOW UP	0.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	4/30/2008	ENFORCEMENT ACTIVITIES	2.9	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/24/2008	INSPECTION FOLLOW UP	1	

FA0006102	SEGS III-VII	41100 HWY 395	BORON	8/28/2008	INSPECTION FOLLOW UP	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	3/20/2009	ENFORCEMENT ACTIVITIES	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	5/5/2009	ENFORCEMENT ACTIVITIES	1.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	5/11/2009	ENFORCEMENT ACTIVITIES	8	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	6/23/2009	ENFORCEMENT ACTIVITIES	4.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	6/24/2009	ENFORCEMENT ACTIVITIES	1.3	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	6/25/2009	ENFORCEMENT ACTIVITIES	4	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	6/26/2009	ENFORCEMENT ACTIVITIES	3	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	6/30/2009	ENFORCEMENT ACTIVITIES	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	8/23/2009	ENFORCEMENT ACTIVITIES	0.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	12/1/2009	ENFORCEMENT ACTIVITIES	1	**128 HOURS TOTAL**
FA0006103	SEGS VII & IX	43880 HARPER LAKE	HINKLEY	5/13/2006	BUSINESS PLAN REVIEW	1.5	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	6/24/2004	AST PLAN CHECK/INSTALL	1.5	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	8/19/2004	UST INSPECTION	2	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	10/12/2004	AST PLAN CHECK/INSTALL	8	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	12/21/2004	UST REMOVAL FOLLOW UP	4.5	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	4/14/2005	UST REMOVAL FOLLOW UP	6.3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	5/12/2005	UST REMOVAL FOLLOW UP	0.16	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	5/17/2005	AST PLAN CHECK/INSTALL	1	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	11/30/2005	UST REMOVAL FOLLOW UP	4.5	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	12/16/2005	ROUTINE INSPECTION	6	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/8/2007	INSPECTION FOLLOW UP	1	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	4/10/2007	MEETING W/ CONSULTANT	0.3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	4/11/2007	MEETING W/ CONSULTANT	0.2	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	4/16/2007	UST REMOVAL FOLLOW UP	6.3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	7/11/2007	BUSINESS PLAN REVIEW	1.5	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	7/12/2007	INSPECTION FOLLOW UP	0.16	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	7/12/2007	BUSINESS PLAN REVIEW	6.3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	10/5/2007	BUSINESS PLAN REVIEW	3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	1/25/2008	INSPECTION FOLLOW UP	2.6	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/11/2008	INSPECTION FOLLOW UP	11.3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/12/2008	ROUTINE INSPECTION	9.6	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/14/2008	ENFORCEMENT ACTIVITIES	0.25	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/15/2008	INSPECTION FOLLOW UP	5.2	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/19/2008	INSPECTION FOLLOW UP	7	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/25/2008	EMERGENCY RESPONSE	8	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	3/19/2008	INSPECTION FOLLOW UP	0.42	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	5/10/2008	UST PLAN CHECK	3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	7/23/2008	UST PAPER WORK REVIEW	2	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	7/29/2008	UST PAPER WORK REVIEW	1	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	3/23/2008	ENFORCEMENT ACTIVITIES	0.5	**105 HOURS TOTAL**
FA0011642	SOLAR TWO	37100 SANTA FE	DAGGETT				

EXB 325 - CSBFD 2010h - San Bernardino County Fire Department (TN 57288) EMS Response From SBCFD. Submitted to CEC on 6/22/2010.

ccc/bdc number	date	time	remarks
98010253	02/18/1998	1041	MISC 040 , HARPER LAKE RD AT THE LUZ SOLAR PLANT.
98012783	03/01/1998	0931	TEXT 031 FX LEG / MEET RP AT POWER PLANT
98032684	06/09/1998	1336	TEXT 053 UNKN TYPE ALARM AT THE POWER PLANT / PER LLU SECURITY
98060460	10/19/1998	0844	MISC 070 (M4203) E125 , FIRE AT LUZ SOLAR PLANT//ADVISED OF PERMIT REQUIREMENTS
98063549	11/04/1998	0703	TEXT 050 SOLAR PLANT // LARGE FLAMES // LOTS OF BLACK SMOKE
98064220	11/07/1998	1341	DISP 061 (H0664) E40 AMR31 , AT THE POWER PLANT....SOMEONE WILL DIRECT
98064225	11/07/1998	1408	TEXT 090 BACK INJ///LZ AT THE POWER PLANT AT THE HELOSPOT....CONTACT BE48 ON CALCO RD...TB 4565 F7
99011628	02/26/1999	1812	CHGLOC 033 SOLAR PLANT/ZZZ TO 35100 SANTE FE
99019822	04/07/1999	2221	TEXT 031 UNIV POWER PLANT - POSS HEART -
99025686	05/07/1999	1208	TEXT 041 ELECTRICAL FIRE AT THE MIDDLE POWER PLANT
99025843	05/08/1999	0620	TEXT 054 MALE FELL BACKWARDS/HIT HEAD ON RAILING/AT POWER PLANT
99030487	05/31/1999	1430	MISC 044 , TAKE THE Y NORTH AWAY FROM THE POWER PLANT
99038079	07/06/1999	2206	MISC 068 (10546) , S/O ADVISES ARCING LINES BEHIND POWER PLANT AT 810 3RD ST.
99051027	09/15/1999	0604	ADVISD 083 PASSING A KIDNEY STONE/ MOJAVE SIPHON POWER PLANT 16001 HWY 173/ DSRT COM MADVISED
13824	03/12/2000	1724	TEXT 029 THE POWER PLANT/ GEN FIRE ALM
25326	05/15/2000	1103	TEXT 046 FIRE AT THE KRAMER SOLAR PLANT, E89 RESPONDING
25326	05/15/2000	1237	MISC 095 (H2744) , DAVE RIB, AN EMPLOYEE REP SOLAR PLANT GAVE THE FOLLOWINGINFORMATION ON THE INCIDENT.
			MISC 377 (H2744) , FIRE WAS IN A PUMP LOCATED IN SEGS (SOLAR ELECTRICAL GENERATINGSYSTEMS) "FIVE". THERE ARE 5 SEGS IN THIS SOLAR PLANT. FIRE WAS CAUSED BY AFLASH AND DOLLA
25326	05/15/2000	1245	$10,000 PER DAVE RIB.. ANYMEDIA REQ FOR MORE INFO, THEY CAN CONTACT MR RIB AT THE PLANT AT760-762-5562 EXT 246...FIRE WAS CONTAINED BY ON SITE FIRE APPARATUS. NO HAZMAT INVC
31488	06/16/2000	1745	MOVEOS 023 (F1435) E53 SOLARION IC
50537	09/15/2000	1015	TEXT 043 BUS-SOLAR INK/MANUAL PULL ON FIRE COMMAND 2
59683	11/01/2000	0017	TEXT 021 POWER PLANT EXPLOSION
1001805	01/09/2001	0342	MISC 095 (M4203) E31 , CORNER OF BUSH AND O ST....2ND REPORT ADVISING POWER POLE ONFIRE NOT POWER PLANT
1012121	02/26/2001	0147	TEXT 075 SOLAR PLANT - MALE 36/ AMPUTATED FINGERS/ SUBJ BEING BROUGHT TO MAIN OFFICE
1023952	04/25/2001	1438	TEXT 046 AT SOLARIS HOLDING//ZONE 5 WATERFLOW 2ND FLOOR
1029392	05/21/2001	1735	MOVEOS 025 (H2744) AC4101 "SOLAR IC"
1029392	05/21/2001	2120	MOVEOS 022 (A7909) BC140 SOLAR IC
1029392	05/21/2001	2127	MISC 063 (A7909) , PER NOAH AT DES COMM BC140 HAS NOW ASSUMED "SOLAR IC"
1029392	05/21/2001	2319	MOVEOS 022 (C0662) C4100 SOLAR IC
1038564	07/01/2001	1708	TEXT 053 GEN FIRE AT THE POWER PLANT TB 647-B1 CROSS TAYLOR ST
1042388	07/17/2001	1029	TEXT 038 SOLAR PLANT IN DAGGETT..POSS STRUCTURE
1045426	07/31/2001	1436	TEXT 064 SOLAR LINK INTL...ME138 ON FIRE COMMAND 2 ..REQ E74..MANUAL PULL
1046896	08/07/2001	1334	TEXT 073 GENERAL FIRE ALARM AT THE POWER PLANT / ALSO SHOWS ADRESS OF 11040 TAYLOR
1048135	08/13/2001	0643	TEXT 052 COOL WATER SOLAR PLANT- FALL VICTIM FROM 40 FT TOWER
1048141	08/13/2001	0709	TEXT 048 FALL VICT 3762 D1//SOLAR PLANT AIR OPS ON CALCOR
1064022	10/24/2001	0545	TEXT 049 TWO LARGE BLAST NEAR THE POWER PLANT, NO ADD INFO
1068227	11/12/2001	2025	TEXT 101 PASSERBY SAW A FLASH AT THE POWER PLANT - POWER WENT OFF MOMENTAIRLY THENCAME BACK ON - SEES NO FIRE
2007551	02/05/2002	1658	TEXT 044 POWER PLANT X-ANDERSON /GENERAL FIRE ALARM /
2012325	02/26/2002	0610	TEXT 028 SOUTHWEST END OF POWER PLANT
2013243	03/02/2002	0743	TEXT 040 SOLAR PLANT FIRE, LARGE OUTSIDE OIL FIRE
2024007	04/21/2002	1042	TEXT 105 NEAR SOLAR PLANT...POSS CROSS OF HARPER LAKE RD X ROY...OUT OF CONTROL BURNJOB....RP PHONE # 760-7625424
2036894	06/19/2002	0014	MISC 072 (B2816) , LL ON CALL FOR WATER PAGED TO CALL THE DANA AT THE POWER PLANT
2037295	06/20/2002	1733	TEXT 044 1/2 E OF SOLAR PLANT...LARGE COLUMN OF SMOKE
2041718	07/08/2002	1658	TEXT 064 POWER PLANT..GENERAL FIRE....PERSON TO MEET YOU AT UNIVERSITY CT
2041887	07/09/2002	1334	TEXT 059 POWER PLANT...GENERAL FIRE ALARM MADE ACCESS OFF UNIVERSITY
2044039	07/18/2002	1928	TEXT 043 AT THE POWER PLANT, GEN FIRE ALARM NO RESET
2052135	08/24/2002	2200	NEWLOC 026 (F1435) RED SOLAR INCIDENT
2052135	08/24/2002	2202	MOVEOS 021 (F1435) E125 SOLAR IC
2052135	08/24/2002	2220	MOVEOS 022 (F1435) BC149 SOLAR IC

2059978 09/28/2002 2328 TEXT 085 NEAR AZ 95 AT COURTRIGHT, NEAR THE SOUTH POINT POWER PLANT, REQ AMBULANCE.TB 352 D10
2075159 12/09/2002 1118 MISC 091 (A7910) ME62 , EDISON POWER PLANT NOTHING SHOWING DID HAVE AN EXPLOSION WITHA POWER OUTAGE
3014343 03/04/2003 1439 TEXT 018 AT THE POWER PLANT
3022802 04/12/2003 1559 TEXT 085 NEAR LG POWER PLANT, TOWARDS END OF ESCONDIDO, NEAR LARGE BUSH, NUMEROUSDRUMS DUMPED
3029305 05/12/2003 2012 TEXT 118 E911 TIME: 201002 SEVERAL EXPLOSIONS HEARD AT EDISON SUB POWER PLANT ACROSSFROM THIS ADDRESS :ELECTRICITY OUT IN AREA
3044743 07/15/2003 1517 TEXT 026 POWER PLANT SMOKE DETECTOR
3073855 11/14/2003 1302 TEXT 086 POWER PLANT-GENERAL FIRE ALARM-POSS SMOKE FROM A WELDER OR DUST IN THE AREA-RP UNSURE
3078657 12/05/2003 1422 TEXT 038 POWER PLANT..GENERAL ALARM..X PROSPECT
3084807 12/29/2003 0812 TEXT 061 E911 TIME: 081017 RP SEE SMOKE BEHIND THE FONTANA POWER PLANT
3085269 12/31/2003 0947 TEXT 122 PROSPECT BTWN ANDERSON AND THE FIRST DRIVEWAY ON THE NORTH SIDE OF THESTREET \\ WATER LEAKING INTO THE POWER PLANT TUNNEL
4015231 03/08/2004 1900 TEXT 070 LARGE FLASH OF LIGHT SEEN FROM THE POWER PLANT / POSS TRANSFORMER FIRE
4037936 06/17/2004 1131 TEXT 089 E911 TIME: 113004 AT THE CONSTRUCTION AREA OF THE POWER PLANT, 40 Y/O MAN,POSSIBLE HEART
4045870 07/20/2004 1017 TEXT 060 E911 TIME: 101550 40Y FEM,FALL ARM INJ/EMPLOYEE, POWER PLANT
4060317 09/20/2004 1931 TEXT 091 NEAR POWER PLANT, MC T/C 1 MALE SUBJ, REQ'G AMB, BETWEEN NORTH DYKE ENTRANCEAND CORTWRIGHT
4067327 10/20/2004 2218 MISC 040 (B5541) E4 , STEAM FROM POWER PLANT - MI
4071679 11/09/2004 0725 TEXT 126 E911 TIME: 072133 ILL 51 YOM, HI BP, AT THE POWER PLANT. MEET RP IN A SMALLWHT P/U AT THE CORNER OF SAN BERNARDINO & MTN VIEW
4072656 11/13/2004 2126 MISC 078 (O0407) E127 , ALL THE POWER IS OFF ST THE POWER PLANT - BACK UP LIGHTS AREON
4075684 11/27/2004 0920 MISC 048 (A7909) E40 , STAGE AT POWER PLANT AND ESCONDIDO
4075684 11/27/2004 0924 MISC 069 (A7909) E40 , NEED A/S ME301 GC CALCOR LZ ON ESONDIDO, BY POWER PLANT
5007686 02/01/2005 0923 TEXT 034 POWER PLANT GENERAL BLG FIRE ALARM
5041246 06/25/2005 1324 TEXT 164 ON 58 10 MILES EAST OF KRAMER JUNCTION/RP WILL MEET ON RED HONDA DIRT BIKENEAR SOLAR PANELS/50 YOM OFF RD TC/DISORIENTED/INJURED RIGHT WRISTS ANDSHOULDER/HIT I
5047481 07/18/2005 0841 ADVISD 090 POWER PLANT UNDER CONTRUCTION/POSS HEART, X OF THE SANTA ANA WASH, CALLGIVEN TO CITY FIRE
5047482 07/18/2005 0845 MISC 021 (B5541) , POWER PLANT
5047854 07/19/2005 1554 CHGLOC 051 KECK SOLAR PLANT, DAGGETT TO 35100 SANTA FE ST ,DAG
5047854 07/19/2005 1604 MISC 168 (H2744) , | VEG FIRE/LIGHTNING STRIKES- DAGGETT AREA/OLD SEGS 1 SOLAR PLANT-70 PLUS ACRES AT THIS TIME AT THE RIVER BOTTOM.HAS BEEN SENT TO THEFOLLOWING PAGER(S):9
5050516 07/30/2005 0347 TEXT 037 EXPLOSION FROM A POWER PLANT BUILDING
5054917 08/17/2005 1029 TEXT 095 AT THE POWER PLANT, FEMALE WAS FOUND ON PROPERTY, ALOC, SHE WALKED TO LOCFROM HER DISABLED VEH
5069994 10/21/2005 1759 TEXT 143 CHECK AT THE SOLAR PLANT- REPORTS OF CLOUD ABOVE IT- PLANT STATES ITS HEATTRANSFER FLUID- PASSERBYS ARE HAVING ISSUES- IRRITATING TO THE EYES-
5073831 11/08/2005 0232 MISC 042 (F1435) DES1 , ACROSS FROM THE POWER PLANT
5085786 12/29/2005 1751 TEXT 136 FLAMES FROM VEG ON AN OLD RANCH 8 MILES NORTH OF 58 ON HARPER LAKE RD/ RPCALLING FROM THE SOLAR PLANT AND IS VISIBLE FROM THIS LOCATION
6002347 01/09/2006 1807 TEXT 118 SOLAR PLANT, NOTIFICATION ONLY 75 GAL MONSANO VP1 HEAT TXFER FLUID SPILL,CLEAN UP CREW OS, X282 ALSO CELL #7609649862
6005946 01/25/2006 1443 TEXT 082 GENERATOR ACTIVATION AT BLDG JUST OUTSIDE POWER PLANT. X-ANDERSON.. DID NOTVERIFY
6008209 02/04/2006 1627 TEXT 094 E911 TIME: 162501 *STAND BY* SO ENRT // RIVERSIDE CANAL POWER PLANT / 5150MALE COMP OF PAIN /
TITLE:CAD Narrative [CRLF]CAD Inc #: 06008209 Sheriff Inc#: ALS MEDICAL AID E911 TIME: 162501 *STAND BY* SO ENRT // RIVERSIDE CANAL POWER PLANT / 5150 MALE COMP OF P
6004975 02/04/2006 0001 [CRLF]At 1627 hours on Saturday February 4, 2006 we were dispatched to an EMS call. Two units were assigned to this incident. Two personnel responded. We arrived on scene at 1633 hours and cleared at 1653 hours
6010688 02/15/2006 1158 TEXT 069 RP ADV CHEM SPRAY OVER US 395 FROM SOLAR PLANT JNO KRAMER JCT, CHP ER
6010688 02/15/2006 1206 MISC 141 (F1435) , RP HAS LEFT THE AREA, GOING TOWARDS ADELANTO, THIS WAS A GAS, NOTA LIQUID, WAS NEAR THE SOLAR PLANT, RP CELL PHONE IS 949-212-2548
6006421 02/15/2006 0000 TITLE:CAD Narrative [CRLF]CAD Inc #: 06010688 Sheriff Inc#: HAZARDOUS MATERIALS RP ADV CHEM SPRAY OVER US 395 FROM SOLAR PLANT JNO KRAMER JCT, CHP ER[CRLF]
6011266 02/18/2006 0231 TEXT 029 SMOKE COMING FROM POWER PLANT
6022083 04/06/2006 1440 MISC 066 (H2730) , RED BC STS POSSIBLY NEAR THE POWER PLANT NEAR RED BORDER
6034449 05/30/2006 1136 TEXT 033 GEN FIRE ALARM AT THE POWER PLANT
6034449 05/30/2006 1146 MISC 044 (M4694) MS251 , POWER PLANT NO9THING SHOWING
6038705 06/17/2006 0956 TEXT 029 VEG FIRE NEAR THE POWER PLANT
6075556 11/18/2006 0930 MISC 163 (C5205) , *** PER RO: HOLE IS ON HELENDALE BTWN STATE 58 AND SILVER LAKES,RP WAS CALLING FROM THE SOLAR POWER PLANT, MAKE CONTACT W/ANYONE AT CB# IFANY QUESTION
6075556 11/18/2006 0930 MISC 163 (C5205) , *** PER RO: HOLE IS ON HELENDALE BTWN STATE 58 AND SILVER LAKES,RP WAS CALLING FROM THE SOLAR POWER PLANT, MAKE CONTACT W/ANYONE AT CB# IFANY QUESTION
7017023 03/10/2007 2026 ADVISD 203 REF CAD #014, FEM SUBJ FROM INC WAS W/ 2 MALE SUBJ ALSO LOST SOMEWHERE ONTHE BASE PAST THE SOLAR PANELS IN A VAN OR MOTORHOME W/2 FLATS, PER SBSO RP#714421
7012220 03/22/2007 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 07019896 Sheriff Inc#: FALSE ALARM FONTANA TRUCK STOP: AIR DUCT SMOKE DET/ PREM 909-829-6671SOLAR SYSTEM 455 80022805
7027251 04/24/2007 1245 TEXT 024 FIRE ALARM - POWER PLANT
7055255 08/19/2007 1020 MISC 069 S4 , MET WITH RP FROM SOLAR PLANT, DIRECTING FURTHER TO POSS LOCATION
7062835 09/19/2007 2310 TEXT 039 IN POWER PLANT / RP WILL MEET AND GUIDE
7066984 10/08/2007 1900 MISC 053 (B8165) BP125 , IN AREA - MAKING ACESS TO SOLAR PLANT

7070089 10/22/2007 0528 ONSCNE 062 (B8165) C-3600 , BEST ACCESS GRASS VALLEY RD TO POWER PLANT RD

7084685 12/22/2007 1147 TEXT 020 NEAR THE POWER PLANT
TITLE:CAD Narrative [CRLF]CAD Inc #: 07084685 Sheriff Inc#: TC W/NO INJURIES NEAR THE POWER PLANTRIVER MEDICAL RHONDA 7025214818[CRLF][CRLF]TITLE:N

7052032 12/22/2007 0000 Saturday December 22, 2007 we were dispatched to a vehicle accident with no injuries. Four units were assigned to this incident. We arrived on scene at 1159 hours and cleared at 1215 hours. The incident occurred at O

8012798 02/20/2008 0931 ADVISD 155 STATES HE IS LOOKING ACROSS THE RIVER AND STATES THERE IS A VEG FIRE NEXT TOTHE POWER PLANT. ADV MOJAVE VLY WHO STATES THEY HAVE SEVERAL BURNS IN THE AREA

8020933 03/25/2008 2227 TEXT 042 ELECTRICAL POWER PLANT / RP # 909-208-6521

8012751 03/25/2008 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 08020933 Sheriff Inc#: UNABLE TO LOCATE ELECTRICAL POWER PLANT / RP # 909-208-6521SBSO[CRLF]

8031076 05/08/2008 1407 TEXT 041 VEH INTO BLDG, POWER PLANT, BLUE CORVETTE

8018734 05/08/2008 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 08031076 Sheriff Inc#: TC W/EXTRICATION NEEDED VEH INTO BLDG, POWER PLANT, BLUE CORVETTECHP TXFER 9098253414[CRLF]

8038613 06/07/2008 1641 MISC 068 (D8247) , PER MOHAVE VALLEY THIS IS GOING TO BE NEAR THE POWER PLANT

8038613 06/07/2008 1653 MISC 138 (D8247) , PER MOHAVE VALLEY FIRE GAVE UPDATED ADDRESS TO FIRE / THIS ISGOING TO BE NEAR THE POWER PLANT AT 3775 COURTWRIGHT RD X VIEW LN.

8042653 06/23/2008 1339 MISC 121 (10546) , S.O UNIT ADVISED ON SCENE NORTH END / OF EDISON POWER PLANT - SEESA PROBLEM NOT ABLE TO CONFIRM FIRE OR SMOKE/

8044143 06/29/2008 1857 TEXT 063 35MALE / SOLAR POWER PLANT - 395 2 MILE N/O JUNCTION / EXT. 700

8044143 06/29/2008 1857 TEXT 063 35MALE / SOLAR POWER PLANT - 395 2 MILE N/O JUNCTION / EXT. 700

8044143 06/29/2008 1910 MISC 047 (B6449) , SOLAR PLANT WILL MEET AT 58/HELENDALE

8046564 07/08/2008 1641 TEXT 050 TWO FIRES BURNING BY THE SOLAR PLANTS/ CHP IN AREA

8046564 07/08/2008 1659 MISC 044 (B6449) BE4 , IN AREA OF THE SOLAR PLANT UTL

8027875 07/08/2008 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 08046564 Sheriff Inc#: UNABLE TO LOCATE TWO FIRES BURNING BY THE SOLAR PLANTS/ CHP IN AREACHP[CRLF]

8067935 10/05/2008 1850 TEXT 033 POWER PLANT FIRE ALARM ACTIVATION

8067935 10/05/2008 1856 MISC 042 T251 , 2 STORY POWER PLANT NOTHING SHOWING

8074656 11/02/2008 1457 TEXT 127 TRANSFORMER FROM EDISON POWER PLANT EXPLODED, TRAFFIC LIGHTS IN THE AREA NOWOUT, CHP ADV WILL NOTIFY EDISON, ALSO REQ CO ROADS
TITLE:CAD Narrative [CRLF]CAD Inc #: 08074656 Sheriff Inc#: ELEC INCIDENT - OUTSIDE TRANSFORMER FROM EDISON POWER PLANT EXPLODED, TRAFFIC LIGHTS IN THE AREA NOW

8044802 11/02/2008 0001 ALSO REQ CO ROADSCHP[CRLF][CRLF]TITLE:ME10 [CRLF]At 1457 hours on Sunday November 2, 2008 we were dispatched to an electrical wiring/equipment problem. One unit was assigned to this incident

8085249 12/17/2008 1720 TEXT 021 SOLAR PLANT, 64YM SOB
TITLE:CAD Narrative [CRLF]VERIZON WIRELESS 800 451 5242 Master Incident Number:09-011167 ON WIRELESS 800 451 BDC 09005650 Primary Jurisdiction Inc.#: BDC 09005650 Dis

9005650 02/07/2009 0001 Permit # 02/07/2009 18:56:29B8165 W/O SOLAR PLANT OFF RDWY IN DESERT 02/07/2009 18:53:54SYS WPH2 LAT:34.99401900 LON:-117.567379 METERS:57 %:095 02/07/2009 18
TITLE:CAD Narrative [CRLF]JULIE Master Incident Number:09-023604 BDC 09011634 Primary Jurisdiction Inc.#: BDC 09011634 Disposition:03/20/2009 15:05:58

9011634 03/20/2009 0001 15:05:52S3402 LARGE COLUMN OF BLACK SMOKE, POSS NEAR THE SOLAR PLANT 03/20/2009 15:05:58S3402 604 03/20/2009 15:06:16TSSIntRMS: Confire SunproExternal Case Number
TITLE:CAD Narrative [CRLF]CAD Master Incident Number:09-032897 BDC 09016020 Primary Jurisdiction Inc.#: COL 09001508 Disposition:04/20/2009 15:48:06TSS Alarm Perr

9016020 04/20/2009 0001 BRUSH FIRE POWER PLANTS CUTTING BRUSH 04/20/2009 15:48:52B6449 1 ACRE 04/20/2009 15:49:20B6449 POWER PLANT WAS CUTTING BRUSH AND STARTED THE FIRE ABOUT 1
TITLE:CAD Narrative [CRLF]VVSO Master Incident Number:09-046123 BDC 09022469 Primary Jurisdiction Inc.#: BDC 09022469 Disposition:06/02/2009 23:50:4

9022469 06/02/2009 0001 23:50:47H0664 S.O. ER ...REPT BONFIRE IN THE AREA OF THE POWER PLANT 06/02/2009 23:51:15TSSIntRMS: Confire SunproExternal Case Number 'BDC 09022469' added for San Bernardino Count
TITLE:CAD Narrative [CRLF]CAD Master Incident Number:09-086249 BDC 09041365 Primary Jurisdiction Inc.#: BDC 09041365 Disposition:09/15/2009 05:33:10TSS Alarm Perr

9041365 09/15/2009 0000 ATTHE ENDOF HAR;PER DY LAKE BY THE SOLAR PLANT GOINFG NORTH OF HY 58 09/15/2009 05:32:59H0664 249 09/15/2009 05:33:48TSSIntRMS: Confire SunproExternal Case Number 'BDC 090

EXB 326 - CSBFD 2010i - San Bernardino County Fire Department (TN 57303) SBCFD staffing cost estimates for a fire station. Submitted to CEC on 6/24/2010.

FY 09/10 Position Title	Pay Grade	Step	Ben 5	Fill #	Hrs	Rate	Salary-Regular	Overtime	Retirement Employer Paid SAF	Retirement - Employer Pickup	Med Premium Subsidy	UI	Soc Sec - Medicare	Workers Comp	Life Insurance/ RMT	Uniform	Total	# of Emp	Total for # of Emp		
Costed @ Step 11																					
BG Fire Fighter (PM)	893	11	PMREG	1	128	$22.78	84,511	4,761	24,791	5,999	8,836	112	1,294	5,963	809	1050	138,126	3	414,379		414379
BG Engineer	894	11		1	128	$26.12	89,304	5,459	25,914	6,271	8,836	112	1,374	6,330	927	1050	145,577	3	436,732		436732
BG Captain I	895	11		1	128	$31.07	106,228	6,494	30,825	7,459	8,836	112	1,634	7,530	1,103	1050	171,271	3	513,812		
Totals							**280,043**	**16,714**	**81,530**	**19,729**	**26,508**	**336**	**4,302**	**19,823**	**2,839**	**3,150**	**454,974**	**9**	**1,364,923**		**851,111**
Costed @ varied Steps 7, 9, & 11																					
BG Fire Fighter (PM)	893	7	PMREG	1	128	$20.65	77,229	4,316	22,678	5,488	8,836	112	1,182	5,447	733	1050	127,071	3	381,214		
BG Engineer	894	9		1	128	$24.89	85,098	5,202	24,694	5,976	8,836	112	1,309	6,032	884	1050	139,193	3	417,579		
BG Captain I	895	11		1	128	$31.07	106,228	6,494	30,825	7,459	8,836	112	1,634	7,530	1,103	1050	171,271	3	513,812		
Totals							**268,555**	**16,012**	**78,197**	**18,923**	**26,508**	**336**	**4,125**	**19,009**	**2,720**	**3,150**	**437,535**	**9**	**1,312,605**		

EXB 327 - CSBFD 2010j - San Bernardino County Fire Department (TN 57304) SBCFD Estimated Costs Station Construction, Equipment and Staffing. Submitted to CEC on 6/24/2010.

San Bernardino County Fire
Fire Service Plan
Estimated Costs Station Construction, Equipment & Staffing

Re Newable Energy Facilities Mitigation Costs	Solar One Calico		Ivanpah		Abengoa		
Fire Station	Harvard	Amboy	Baker	Mt Pass	Hinkley	Kramer	
Improvement yr	2011	2012	2011	2012	2011	2012	
Station Construction							
Architecture/Eng		252,000		770,407		770,407	
Construction		1,500,000		2,690,616		2,690,616	
Proj Mgt/Misc		348,605		366,035		366,035	
Station Set up Costs		336,973		136,973		136,973	
Total Station Const Costs	0	2,437,578	0	3,964,031	0	3,964,031	
Type 1 Engine		724,605		724,605		724,605	
Total Pre Operation Cost	0	3,162,183	0	4,688,636	0	4,688,636	12,539,455
Annual Operating Costs							
Staffing	1,837,165	1,837,165	1,837,165	1,837,165	1,837,165	1,837,165	
Services & Supplies		102,752		102,752		102,752	
Engine Replacement	37,929	37,929	37,929	37,929	37,929	37,929	
Est Annual Operating Costs							
	1,875,094	1,977,846	1,875,094	1,977,846	1,875,094	1,977,846	
Total Start Up Cost	1,875,094	5,140,029	1,875,094	6,666,482	1,875,094	6,666,482	24,098,275
Pre Operational +							
Annual Operating Costs							36,637,730
Architecture/ Eng @ 2% per year							
Construction @ 2.5% per year							
Staffing @ 5% per year							
Services Supplies @3% per year							

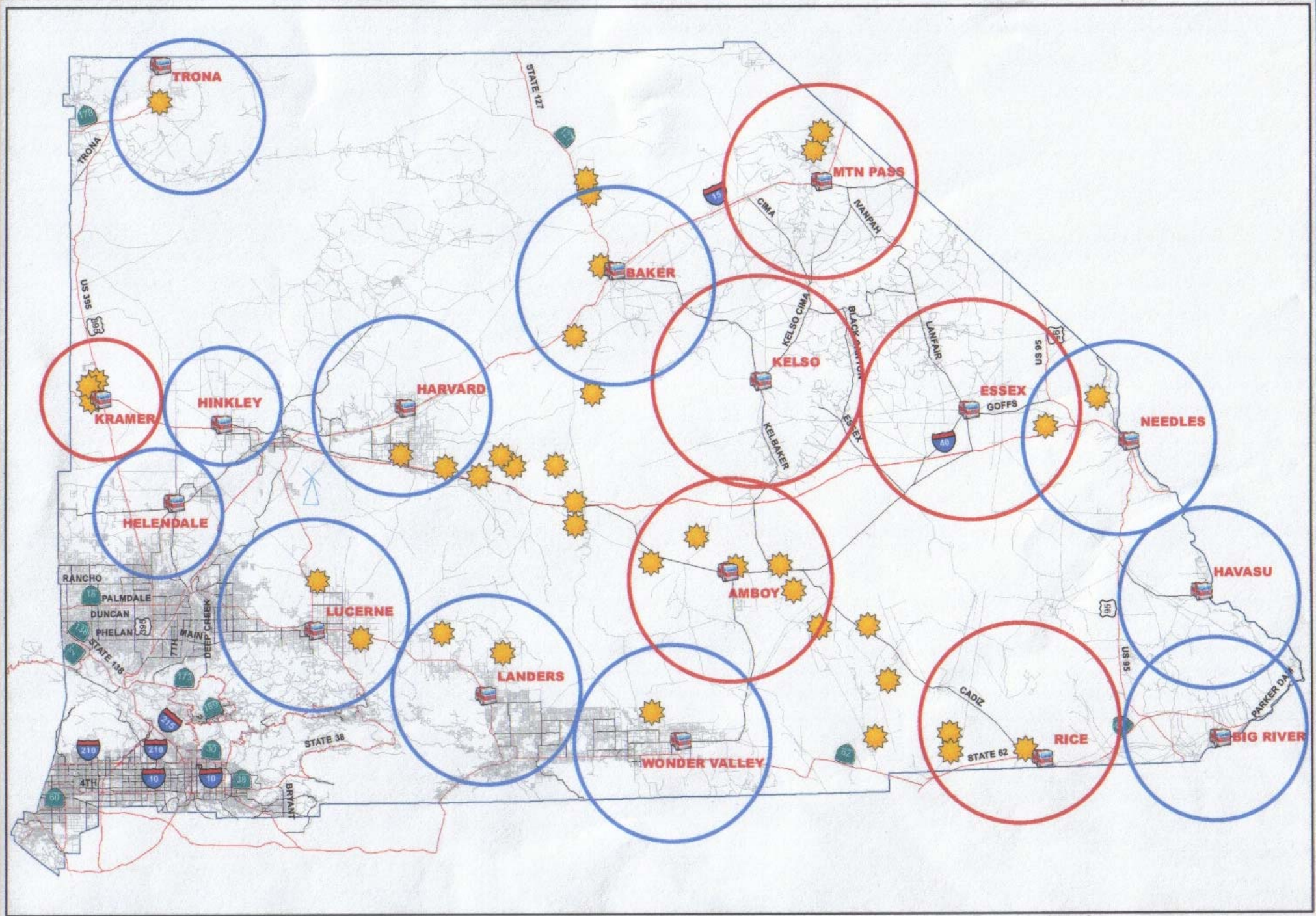
EXB 328 - CSBFD 2010k - San Bernardino County Fire Department (TN 57378) SBCFD Map of Renewable Energy Projects, March 2010. Submitted to CEC on 6/29/2010.

Abengoa Mojave Solar 09-AFC-5

Document Title: San Bernardino County Fire Department - Map of Renewable Energy Projects, March 2010

The attached map is generated by the SBCFD that identifies locations of proposed renewal energy projects (thermal, wind, and PV), their existing fire stations, and their proposed fire stations.

This map is being docked by CEC staff as a reference for Worker Safety and Fire Protection for the Abengoa Mojave Solar project.



San Bernardino County

Renewable Energy Projects

Legend

Fire Station

SOLAR

WIND

San Bernardino County Fire
Pat A. Dennen, Chief

EXB 329 - CSBFD 2010l - San Bernardino County Fire Department (TN 57410) Estimated Allocation of Fire Facility Costs to Proposed Solar Energy Installations prepared by Hoffman Associates for San Bernardino County Fire Department. Submitted to CEC on 7/1/2010.

STANLEY R. HOFFMAN ASSOCIATES

11661 San Vicente Boulevard Suite 306
Los Angeles, California 90049
310.820.2680, 310.820.8341 fax
www.stanleyrhoffman.com

MEMORANDUM

To: Gerry Newcombe, County Administrative Office, San Bernardino County
Chief Peter Brierty, San Bernardino County Fire Department

From: Stan Hoffman, President, Stanley R. Hoffman Associates, Inc.

Date: June 30, 2010

Subject: Estimated Allocation of Fire Facility Costs to Proposed Solar Energy Installations

Project #: 1210

Overview

This memorandum presents an allocation of capital costs (fire station and equipment) for proposed County fire department facilities among the 14 proposed solar farm projects in San Bernardino County. The primary purpose of this analysis from the development impact fee (DIF) perspective is to allocate capital costs from new fire stations to provide coverage for the potential fire protection-related and emergency medical services needs of the proposed solar projects. In doing so, the allocation methodology assigns a 'fair share' cost to the proposed solar projects by establishing the nexus between their impact on fire protection-related and emergency medical services and capital improvement costs to provide these services. We also show, for comparison purposes, an allocation of ongoing operations and maintenance costs to the solar projects from upgrades to existing stations and the proposed new fire stations.

The general locations of these proposed County fire facilities and proposed solar farms are shown in Figure 1. As shown in Table 1, the allocation of capital costs, based on a weighted matrix that evaluates emergency response risk, is very much dependent upon whether the solar facilities are photovoltaic or the larger solar thermal systems, which use chemical substances such as Therminol and gaseous hydrogen to transfer heat. The higher allocated capital costs rounded to the nearest thousands are for Abengoa ($860,000), Ivanpah ($526,000) and Solar One ($1,187,000). In comparison, the photovoltaic systems are allocated lower capital costs ranging from about $67,000 to about $202,000. A similar allocation was performed for distributing estimated operations and maintenance costs for proposed upgrades and proposed new stations. As shown in Table 2, allocations of the annual operations and maintenance costs range from about $62,000 to $187,000 for the photovoltaic systems and about $485,000 to $1,095,000 for the thermal systems.

Overview of Solar Energy Technology

Solar energy technologies can be summarized under two general categories: photovoltaic (PV) and thermal. Photovoltaic systems generate energy directly from the sun, while thermal systems harness the sun's energy to heat transfer mediums like water or Therminol to drive steam-turbine generating plants. In the solar thermal hydrogen systems, the sun's energy causes the expansion and contraction of hydrogen to drive the turbine. In the United States, the power industry has focused on solar thermal technologies mainly because it is perceived as more commercially viable than solar PV technologies. However, PV systems are becoming more competitive as technological advancements allow manufacturers to increase panel efficiency and reduce costs. Appendix A provides a more detailed description of the technologies underlying PV and thermal solar energy systems. The advantages and disadvantages of thermal systems relative to photovoltaic systems are summarized below:

Advantages

- Thermal systems produce more energy than PV systems. As shown in Table 3, in San Bernardino County the three thermal systems range from 250 to 850 megawatts, while the PV systems range from 1.3 to 104.0 megawatts.
- Solar thermal systems can work in the shade for brief amounts of time, since the heated fluids they depend on can stay hot enough to generate electricity for some time without the sun.

Disadvantages

- Thermal systems present a much higher fire risk than PV systems. As shown in Table 4, the San Bernardino County Fire Department and California Energy Commission staff jointly ranked the three thermal projects as very high priorities for emergency fire response, while the 11 PV projects were ranked as only low to moderate priorities.
- Unlike PV systems, thermal systems require on-site staff to perform operations and maintenance. Because individuals are required to work on-site, these systems require additional public services such as fire protection, rescue, hazardous materials spill response and emergency medical response.
- Thermal systems are larger and require more land than PV systems. As shown previously in Table 3, the three proposed thermal systems in San Bernardino County have disturbed acreages ranging from 1,765 acres to 8,230 acres, while the 11 proposed PV systems have disturbed acreages ranging from 12 acres to 922 acres.

San Bernardino County Proposed Solar Projects

As shown in Table 3, a total of 14 solar energy projects are proposed for San Bernardino County (two projects shown in Table 3 are wind energy projects). Of the 14 total solar projects, 11 are

based on PV technology and 3 are based on thermal technologies (1 each of water, Therminol and gaseous hydrogen). There is large disparity between the PV projects and the thermal projects in terms of size (disturbed acreage) and installed capacity (megawatts). As shown in Table 3, the 11 PV projects are smaller in acreage, with lower installed capacity compared to the 3 thermal projects. The PV projects range from Soltech Solar (12 acres, 1.3 megawatts) to Rabbit Springs Solar (922 acres, 104.0 megawatts), while the thermal projects range from Abengoa (1,765 acres, 250.0 megawatts) to Solar One (8,230 acres, 850.0 megawatts). As shown in Table 3, on a megawatts per 1,000 acres basis, the installed capacity of the PV projects range from Lucerne Valley Solar (87.2) to Axio Power Holdings, El Mirage (142.0), while the installed capacity of the thermal projects ranges from Solar One (103.3) to Abengoa (141.6).

The 14 proposed solar farm projects are located in the Desert region of San Bernardino County, which is comprised of three economic sub-areas (ESAs) – Morongo Basin, Outlying Desert, and Victor Valley-Barstow – as designated under the County General Plan. Shown in Table 5 are the concentrations of proposed solar projects by each of these geographic sub-areas. The Outlying Desert ESA, which contains one each of solar thermal-water and thermal-hydrogen projects and one PV project, has the largest aggregate installed capacity (1,255 megawatts) and disturbed acreage (11,910 acres). The Victor Valley-Barstow ESA has the most solar projects (eight PV and one thermal), totaling 583 megawatts and 4,496 disturbed acres. The Morongo Basin ESA contains two PV projects and no thermal projects, for a total of 65 megawatts and 673 disturbed acres. The estimated on-site employment for the thermal systems ranges from 80 employees for the Abengoa project to 164 employees for the Solar One project near Calico. The PV and wind projects are estimated to have insignificant full-time employment on-site.

Total Fire Facility Capital and Operations and Maintenance Costs

As shown in Table 6, the capital costs for both proposed ($12.5 million) and future fire stations ($14.1 million) total an estimated $26.6 million. Cost estimates for annual operations and maintenance costs are shown separately in Table 6. The capital cost estimates are for new fire facilities, and the operations and maintenance costs are for upgrades to existing stations as well as new facilities. In many cases, the existing stations in more remote areas are operated on a paid-call basis and do not have a full time fire personnel staff.

Methodology

The total megawattage output estimated for each solar farm facility, as shown in Table 1, is grouped into one of four megawattage categories: 1) less than 50 megawatts; 2) 50 to less than 100 megawatts; 3) 100 megawatts to less than 500 megawatts; and 4) 500 megawatts or greater. Power plants greater than 50 megawatts are under the authority of the CEC. For power plants between 50 and 100 megawatts, the CEC often grants a Small Power Plant Exemption (SPPE) which then allows for local enforcement; anything greater than 100 megawatts requires a full Application for Certification (AFC), an environmental review and continued enforcement by the CEC. A power plant of 500 megawatts or larger is considered a medium to large power plant.

These megawattage categories are then weighted according to an "emergency response matrix," as shown previously in Table 4. The emergency response rating for each solar farm project was developed by the San Bernardino County Fire Department in conjunction with staff from the California Energy Commission. Solar projects were rated based on five criteria to determine the urgency of the need for additional resources and mitigation, with a higher rating indicating greater emergency response urgency. The five criteria were: 1) Inspections; 2) Fire/Explosion risk; 3) HazMat risk; 4) Rescue First Alarm; and 5) EMS response of certified medic. Each factor was then weighted according to its estimated proportionate contribution to the composite ranking. As shown in Table 4, the weighting factors range from a low of 1.0 for several of the photovoltaic systems to a high to 4.4 for the Calico system.

Establishing Development Impact Fee Nexus

Following the 'nexus' criteria to allocate the fair share costs of potential capital improvements to new development, we first establish the impact of projected background demographic growth on demand for new fire services. This impact is established by applying a geographically appropriate per capita level of fire service to the projected population growth within the three ESAs where the solar projects are located. As shown in Table 7, based on information obtained from the San Bernardino County Fire Department, the population served per station facility varies greatly among the five County Fire Divisions, ranging from around 14,000 persons per station in the more urbanized areas of the Valley Division and the Victorville Division to only about 2,900 persons per station in the South Desert Division. An average level of service of about 5,400 persons per station for the North and South Divisions taken together was considered

appropriate to apply to the background demographic growth projected to occur within the three Desert ESAs (Morongo Basin, Outlying Desert and Victor Valley-Barstow) over the 2008 to 2020 time period, where the solar projects are located.

As shown in Table 8, based on information obtained from the County Land Use Services Department, a total population growth of 9,457 persons is projected for the Desert Planning Area under the current County General Plan. Further, this growth was allocated down to the three ESAs – Outlying Desert, Victorville/Barstow and the Morongo Basin, as show in Table 8. The estimated projected growth within these areas results in a total demand for 1.75 new stations, applying the level of service factor of 5,400 persons per station. This projected residential demand comprises a share of 58.4 percent of the total 3 new fire stations proposed by the County Fire Department to potentially provide coverage for the solar projects. Following this method, it is estimated that the remainder 41.6 percent of net new demand for fire services originates from all other non-residential uses, including commercial activities and traffic-related calls.

In order to get a finer breakdown of all other non-residential calls, and as a check for the percent share attributed to projected new residential calls, we examined the County Fire Department call volume data for 2009 by different call origin types (residential, traffic and commercial) distributed by Urban, Rural and Remote areas within the County, as shown in Table 9. Given the location of the solar projects in the desert areas of the County, a weighted percent call distribution for the combined Rural and Remote areas was considered reflective of the possible call volume pattern serviced by the 3 proposed new stations. The weighted average call volume for 2009 in the Rural and Remote areas indicates 59.7 percent of all calls had residential origin, which is similar to the population growth projection-based estimate of 58.4 percent. Further, the call volume data indicates that of the remainder 40.3 percent of service calls, 28.8 percent were commercial-related and 11.4 percent were traffic-related, as shown in Table 9. Following from this, we assume a rounded factor of 29.0 percent for commercial-related calls as representative of the fair-share allocation of costs from new capital improvements to the solar projects, as shown in Table 9. Applying the 29.0 percent factor to the total capital improvement costs of $12.54 million from proposed new fire stations, results in a fair-share allocation of $3.64 million to the proposed solar projects. The above fair-share cost was then allocated to each solar project based on its composite weighting, as described next.

Allocation of Fair-share Capital Costs to Individual Solar Projects

As previously shown on Table 1, each project's emergency response rating (from Table 4) was then multiplied by its megawattage category to determine its weighted megawattage ranking. Each project's megawattage was obtained from the project's application as is shown on Table 3. Then, each project's individual share of total weighted megawattage ranking – expressed as a percentage – was then used to distribute fire facility capital cost responsibilities. As shown on Table 1, the total capital cost for proposed stations of $12.54 million was multiplied by the fair-share factor of 29.0 percent to estimate the proposed solar farms' aggregate capital cost responsibility of about $3.64 million.

This methodology spreads the costs proportionally among the stations in the Desert region of San Bernardino County even though some of the facilities are in more urbanized areas versus more remote areas within the Desert region. While one station may be the first responder to an emergency, the other stations will provide backup support depending upon the location and severity of the emergency.

Conclusions

Approximately $3.64 million of the $12.54 million required for proposed fire facility capital costs has been allocated to solar farms in the Desert region of San Bernardino County, as shown previously in Table 1. The distribution of capital costs to solar thermal projects ranges from about $526,000 to $1,187,000, while the distribution of capital costs to PV projects ranges from about $67,000 to $202,000 per project. This difference is the result of solar thermal projects having a significantly greater emergency response rating and size (as measured by megawattage), and therefore greater potential impacts on County fire services capabilities. While relatively little commercial growth is projected in the Outlying Desert area of San Bernardino County, if significant commercial growth does occur or other solar farms are proposed, then the County may consider a reallocation of the fire facility costs and reimbursement agreements in the future for projects that have already contributed toward off-setting those fire facility costs.

As discussed earlier, a similar allocation was performed for distributing estimated operations and maintenance costs for proposed upgrades and proposed new stations. As shown previously in

Table 2, allocations of the annual operations and maintenance costs range from about $62,000 to $187,000 for the photovoltaic systems and about $485,000 to $1,095,000 for the thermal systems.

A taxable Possessory Interest may exist whenever there is a private, beneficial use of publicly-owned, non-taxable real property. Such interests are typically found where private individuals, companies or corporations lease, rent or use federal, state or local government owned facilities and/or land for their own beneficial use. For those solar farm projects that have long-term leases, whatever future possessory interest property tax is collected by the County will be used to help off-set the annual fire facility operations and maintenance costs.

Figure 1
Proposed Solar Farms and San Bernardino County Fire Facilities

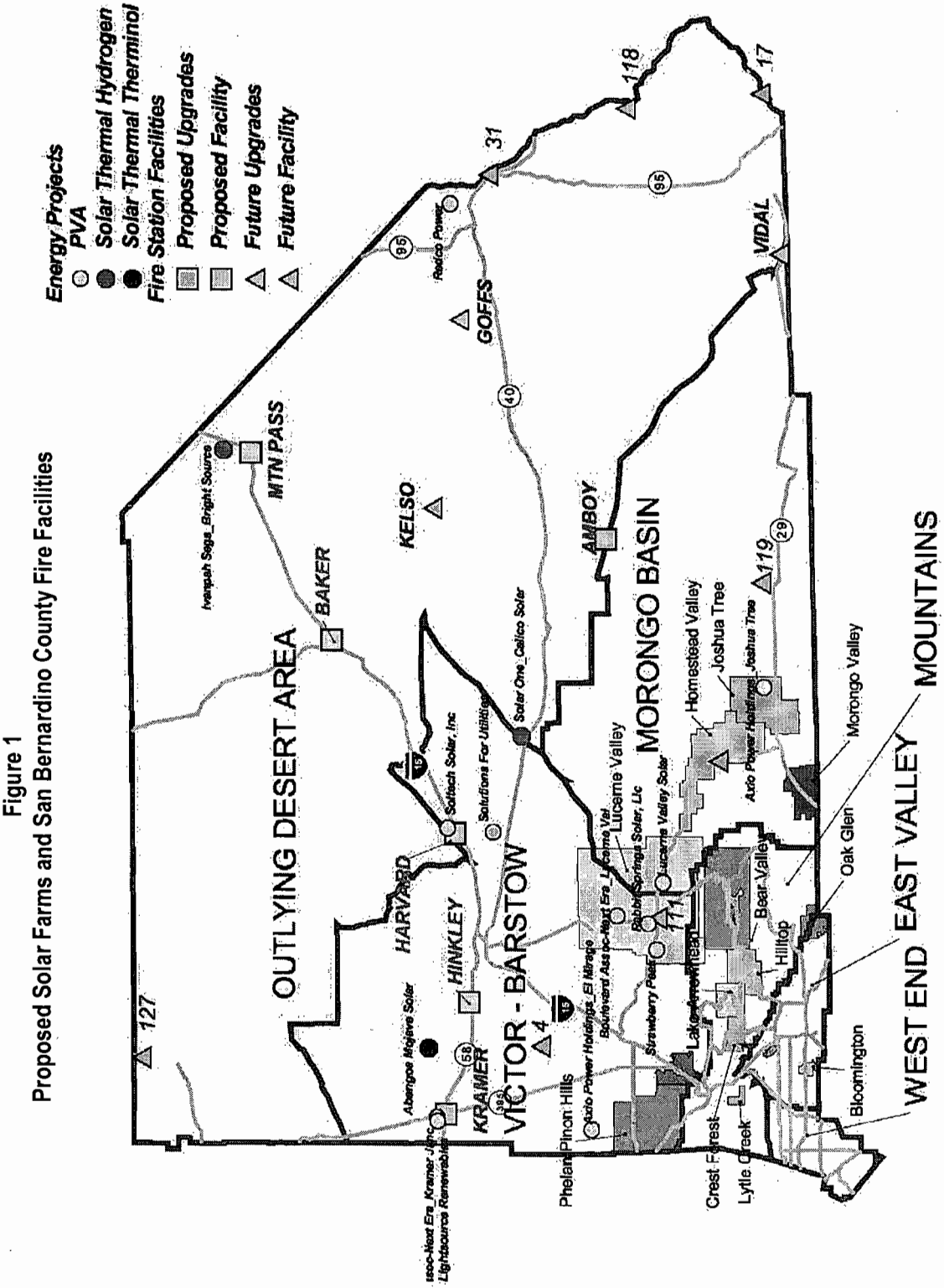


Table 1
Estimated Distribution of Capital Cost Responsibilities by Solar Farm Project

Serial Number	Project Name	Technology	Emergency Response Matrix Rating[1] (A)	Megawatts by Project[2]	Size Impact Rating[3] (B)	Weighted Composite Response and Size Rating[4] (A X B)	Percentage Distribution of Weighted Rating[5]	Allocation of Capital Costs by Project[6]	Rounded Allocation of Capital Costs by Project[7]
1	Soltech Solar, Inc	PVA	1.0	1.3	1.0	1.0	1.86%	$67,466	$67,000
2	Solutions For Utilities	PVA	1.0	3.0	1.0	1.0	1.86%	$67,466	$67,000
3	Strawberry Peak	PVA	1.0	15.0	1.0	1.0	1.86%	$67,466	$67,000
4	Boulevard Assoc-Next Era, Kramer Junction	PVA	1.0	20.0	1.0	1.0	1.86%	$67,466	$67,000
5	Lightsource Renewables	PVA	1.0	40.0	1.0	1.0	1.86%	$67,466	$67,000
6	Boulevard Assoc-Next Era, Lucerne Valley	PVA	1.0	60.0	2.0	2.0	3.71%	$134,933	$135,000
7	Rabbit Springs Solar, Llc	PVA	1.0	104.0	3.0	3.0	5.57%	$202,399	$202,000
8	Redco Power	PVA	1.0	5.0	1.0	1.0	1.86%	$67,466	$67,000
9	Axio Power Holdings, Joshua Tree	PVA	1.0	20.0	1.0	1.0	1.86%	$67,466	$67,000
10	Axio Power Holdings, El Mirage	PVA	1.0	90.0	2.0	2.0	3.71%	$134,933	$135,000
11	Lucerne Valley Solar	PVA	1.8	45.0	1.0	1.8	3.25%	$118,066	$118,000
12	Abengoa Mojave Solar	Solar Thermal Therminol	4.3	250.0	3.0	12.8	23.65%	$860,197	$860,000
13	Ivanpah SEGS, Bright Source	Solar Thermal Steam	2.6	400.0	3.0	7.8	14.47%	$526,238	$526,000
14	Solar One, Calico Solar	Solar Thermal Hydrogen	4.4	850.0	4.0	17.6	32.65%	$1,187,410	$1,187,000
			23.0	1,903.3		53.9	100.00%	$3,636,442	$3,632,000

TOTAL CAPITAL COST[8]	$12,539,455
COST SHARE OF SOLAR PROJECTS[9]	$3,636,442
ALLOCATION FACTOR[10]	29.00%

MEGAWATTAGE IMPACT CATEGORIES[11]

Megawatts	Rating
<50	1
50 to <100	2
100 to 500	3
Above 500	4

1. The emergency response weightings have been developed by the San Bernardino County Fire Department based on factors shown in Table 4.
2. This is the estimated total megawattage by project as provided by the project proponents applications.
3. See note 11.
4. Estimated weighted rating based on megawattage size category when multiplied by the emergency response matrix rating.
5. Percentage distribution of weighted rating by project; this weighting will be used to distribute capital cost responsibilities by project.
6. The allocation of capital cost responsibility to project is based on distributing the allocated fire facility cost share based on the weighted rating percentages.
7. Cost allocations rounded to the nearest thousands.
8. Estimated total new and upgraded fire facility capital costs.
9. Estimated fire facility capital cost share of proposed solar farm projects based on allocation factor as provided by San Bernardino County Fire Department.
10. Allocation factor based on call volumes associated with commercial development, as reported by the San Bernardino Fire Department and shown in Table 9.
11. Projects were also rated for demand for County fire services due to absolute size using project megawattage output to group the projects into four impact categories.

Source: Stanley R. Hoffman Associates, Inc.

Table 2
Distribution of Annual Operations and Maintenance Costs

Serial Number	Project Name	Technology	Emergency Response Matrix Rating[1] (A)	Megawatts by Project[2]	Size Impact Rating[3] (B)	Weighted Composite Response and Size Rating[4] (A X B)	Percentage Distribution of Weighted Rating[5]	Allocation of Capital Costs by Project[6]	Rounded Allocation of Capital Costs by Project[7]
1	Soltech Solar, Inc	PVA	1.0	1.3	1.0	1.0	1.86%	$62,190	$62,000
2	Solutions For Utilities	PVA	1.0	3.0	1.0	1.0	1.86%	$62,190	$62,000
3	Strawberry Peak	PVA	1.0	15.0	1.0	1.0	1.86%	$62,190	$62,000
4	Boulevard Assoc-Next Era, Kramer Junction	PVA	1.0	20.0	1.0	1.0	1.86%	$62,190	$62,000
5	Lightsource Renewables	PVA	1.0	40.0	1.0	1.0	1.86%	$62,190	$62,000
6	Boulevard Assoc-Next Era, Lucerne Valley	PVA	1.0	60.0	2.0	2.0	3.71%	$124,381	$124,000
7	Rabbit Springs Solar, Llc	PVA	1.0	104.0	3.0	3.0	5.57%	$186,571	$187,000
8	Redco Power	PVA	1.0	5.0	1.0	1.0	1.86%	$62,190	$62,000
9	Axio Power Holdings, Joshua Tree	PVA	1.0	20.0	1.0	1.0	1.86%	$62,190	$62,000
10	Axio Power Holdings, El Mirage	PVA	1.0	90.0	2.0	2.0	3.71%	$124,381	$124,000
11	Lucerne Valley Solar	PVA	1.8	45.0	1.0	1.8	3.25%	$108,833	$109,000
12	Abengoa Mojave Solar	Solar Thermal Therminol	4.3	250.0	3.0	12.8	23.65%	$792,926	$793,000
13	Ivanpah SEGS, Bright Source	Solar Thermal Steam	2.8	400.0	3.0	7.8	14.47%	$485,084	$485,000
14	Solar One, Calico Solar	Solar Thermal Hydrogen	4.4	850.0	4.0	17.6	32.65%	$1,094,549	$1,095,000
			23.0	1,903.3		53.9	100.00%	$3,352,058	$3,351,000

OPERATIONS AND MAINTENANCE COST[8]	$11,558,820
COST SHARE OF SOLAR PROJECTS[9]	$3,352,058
ALLOCATION FACTOR [10]	29.00%

MEGAWATTAGE IMPACT CATEGORIES [11]

Megawatts	Rating
<50	1
50 to <100	2
100 to 500	3
Above 500	4

1. The emergency response weightings have been developed by the San Bernardino County Fire Department based on factors shown in Table 4.
2. This is the estimated total megawattage by project as provided by the project proponents applications.
3. See note 11.
4. Estimated weighted megawattage when multiplied by the emergency response matrix rating.
5. Percentage distribution of weighted megawattage by project; this weighting will be used to distribute operations and maintenance cost responsibilities by project.
6. The allocation of operations and maintenance cost responsibility to project is based on distributing the allocated fire facility cost share based on the weighted megawattage percentages.
7. Cost allocations rounded to the nearest thousands.
8. Estimated operations and maintenance costs from proposed upgrades and new stations.
9. Estimated operations and maintenance cost share of proposed solar farm projects based on allocation factor as provided by San Bernardino County Fire Department.
10. Allocation factor based on call volumes associated with commercial development, as reported by the San Bernardino Fire Department and shown in Table 9.
11. Projects were also rated for demand for County fire services due to absolute size using project megawattage output to group the projects into four impact categories.

Source: Stanley R. Hoffman Associates, Inc.

Table 3
Physical Characteristics of Proposed Solar Farm Projects

No.	PROJECT NAME/ NUMBER	PROJECT NUMBER	TECHNOLOGY	JURISDICTION	EMPLOYMENT[1]	MEGAWATTS	ACREAGE	MEGAWATTS PER 1,000 ACRES
1	GRANITE WIND	P200700743	Wind	Under County Jurisdiction, Joint Review & Permitting with BLM	n/a	64.4	2,640	24.4
2	DAGGETT RIDGE WIND FARM, LLC	P200800589	Wind	Under County Jurisdiction, Joint Review & Permitting with BLM	n/a	82.5	1,957	42.2
3	SOLTECH SOLAR, INC	P20100018	PVA	County	n/a	1.3	12	112.3
4	SOLUTIONS FOR UTILITIES	P200900339/CUP/CF	PVA	County	n/a	3.0	22	136.4
5	STRAWBERRY PEAK	P200900655/CF	PVA	County	n/a	15.0	160	93.8
6	BOULEVARD ASSOC - NEXT ERA/ KRAMER JUNCTION		PVA	County	n/a	20.0	191	104.7
7	LIGHTSOURCE RENEWABLES	P200900470	PVA	County	n/a	40.0	350	114.3
8	BOULEVARD ASSOC - NEXT ERA/ LUCERNE VALLEY	P200900663/CF	PVA	County	n/a	60.0	440	136.4
9	RABBIT SPRINGS SOLAR, LLC	P200900580/CF	PVA	County	n/a	104.0	922	112.8
10	REDCO POWER	P200900558	PVA	Pre-application	n/a	5.0	40	125.0
11	AXIO POWER HOLDINGS - JOSHUA TREE	P200900666/PAC	PVA	Pre-application	n/a	20.0	157	127.4
12	AXIO POWER HOLDINGS - EL MIRAGE	P200900665/PAC	PVA	Pre-application	n/a	90.0	634	142.0
13	LUCERNE VALLEY SOLAR		PVA	BLM	n/a	45.0	516	87.2
14	ABENGOA MOJAVE SOLAR		Solar Thermal with Therminol Fluid	CEC	80	250.0	1,765	141.6
15	IVANPAH SEGS (BRIGHT SOURCE)		Solar Thermal with Steam	CEC & BLM	90	400.0	3,640	109.9
16	SOLAR ONE (CALICO SOLAR)		Hydrogen Stirling Engines	CEC & BLM	164	850.0	8,230	103.3
				TOTAL	**334**	**2,050.2**	**21,676**	**94.6**
				TOTAL (SOLAR ONLY)	**334**	**1,903.3**	**17,079**	**111.4**
				TOTAL (WIND ONLY)[1]	**n/a**	**146.9**	**4,597**	**32.0**

1. There is no significant full-time employment estimated for the photovoltaic and wind systems.

Source: Stanley R. Hoffman Associates, Inc.
San Bernardino County Land Use Services Department
San Bernardino County Fire Services Department

Table 4
Emergency Response Matrix Ratings by Solar Farm Project

Emergency Response Matrix																						
A. Response Criteria		**points**	**weighting factor**	**Kramer**	**Harper**	**Lucerne**	**Abengoa**	**Ivanpah**	**Solar 1**	**SolarTech**	**Solun**	**Strawbry**	**Boule KJ**	**LightSrc**	**Boule LV**	**RBT Spgs**	**Red Co**	**Axio JT**	**Axio EM**
1. Inspections			0.10																
	a. minimal need	1																	
	b. average need	3		3	3	3				1	1	1	1	1	1	1	1	1	1
	c. significant need	5					5	5	5										
2. Fire			next	0.45	0.45	0.30	0.45	0.75	0.75	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
A. Quantity stored on-site																			
	a. <1,000 gal	1	0.20			1		1		1	1	1	1	1	1	1	1	1	1
	b. >1000 and <100,000 gal	2																	
	c. >100,000 gal Thermind or High Volume High Pressure Hydrogen	5	next	5	5		5		5										
B. Fire/Explosion off-site consequences				0.60	0.45	0.30	0.45	0.75	0.75	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
	On site and off site consequence		0.30																
	a. Limited to site	1				1		1		1	1	1	1	1	1	1	1	1	1
	b. Potential for smoke and/or fire and/or	2																	
	blast effects	3			3				3										
	c. Potential for major fire/blast stucture damage	4																	
	and/or injuries/fatalities off-site and/or major hwy disruption/closure	5	next	5			5												
3. HazMat				0.75	0.60	0.45	0.75	1.25	1.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
A. Proximity to or potential for effect on all human receptors			0.05																
	a. no sig quant of hazmats or no potential for off-site impacts within 1/2 mile	1				1		1		1	1	1	1	1	1	1	1	1	1
	b. <10 receptors within 1/2 mile	2																	
	c. >10 receptors within 1/2 mile	3			3		4												
	d. >50 within 1/2 mile	4							5										
	e. >100	5	next	5															
B. Hazmat response time				0.75	0.60	0.45	0.60	1.00	1.00	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	a. <30 minutes	1			3	3	3	1		1	1	1	1	1	1	1	1	1	1
	b. 30 - 60 minutes	3		3					5										
	c. >60 minutes	5	next																
4. Rescue First Alarm				0.75	0.60	0.45	0.60	1.00	1.00	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	a. < 30 minutes	1	0.15	1						1	1	1	1	1	1	1	1	1	1
	b. 30 - 60 minutes	3			3	3	3												
	c. >60 minutes	5	next					5	5										
5. EMS Response of Certified Medic				0.75	0.60	0.45	0.45	0.75	0.75	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
EMS response time			0.15																
	a. No Staff on site	1								1	1	1	1	1	1	1	1	1	1
	b. <15 minute response time	2				2													
	c. >15 <30 minute response time	3			3		3												
	d. >30 and < 60 minute response time	4		4				5	5										
	e. >60 minute response time	5	next																
	Sum weighting factors		1.00	3.95	3.4	1.75	4.25	2.60	4.40	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
TOTAL SCORE			======>																
LOW Priority: additional resources and mitigation may be needed.			< or =1																
MEDIUM Priority: additional resources and mitigation needed.			1.0 - 2.5																
HIGH Priority: very significant need for additional resources and mitigation.			2.5 - 3.0																
VERY HIGH Priority: urgent need for additional resources and mitigation.			>3.0																
SOURCE: San Bernardino County Fire Department																			
California Energy Commission Staff.																			

Table 5
Summary of Solar Farm Project Characteristics by Sub-Area

	Morongo Basin	Outlying Desert	Victor Valley-Barstow	TOTAL
Proposed Energy Projects				
A. Number				
Photovoltaic	2	1	8	11
Solar Thermal - Steam	0	1	0	1
Solar Thermal - Hydrogen	0	1	0	1
Solar Thermal - Therminol	0	0	1	1
Total	2	3	9	14
B. Megawatts				
Photovoltaic	65	5	333	403
Solar Thermal - Steam	0	400	0	400
Solar Thermal - Hydrogen	0	850	0	850
Solar Thermal - Therminol	0	0	250	250
Total	65	1,255	583	1,903
C. Disturbed Acreage				
Photovoltaic	673	40	2,731	3,444
Solar Thermal - Steam	0	3,640	0	3,640
Solar Thermal - Hydrogen	0	8,230	0	8,230
Solar Thermal - Therminol	0	0	1,765	1,765
Total	673	11,910	4,496	17,079
B. Megawatts per 1000 Acres				
Photovoltaic	97	125	122	117
Solar Thermal - Steam	n/a	110	n/a	110
Solar Thermal - Hydrogen	n/a	103	n/a	103
Solar Thermal - Therminol	n/a	n/a	142	142
All Average	97	105	130	111

Source: Stanley R. Hoffman Associates, Inc.
San Bernardino County Fire Department
San Bernardino County Land Use Services Department.

Table 6
Estimated Capital Costs and Annual Operations and Maintenance Costs by Facility

STATION_NO	ECNSUBAREA	TYPE OF IMPROVEMENT	CAPITAL COSTS	ANNUAL OPERATIONS AND MAINTENANCE COSTS
PROPOSED STATIONS				
125 - HINKLEY STATION	VICTOR - BARSTOW	Proposed Upgrades	$0	$1,875,094
46 - HARVARD STATION	VICTOR - BARSTOW	Proposed Upgrades	$0	$1,875,094
53 - BAKER CSD STATION	OUTLYING DESERT AREA	Proposed Upgrades	$0	$1,875,094
MTN PASS	OUTLYING DESERT AREA	Proposed Facility	$4,688,636	$1,977,846
AMBOY	OUTLYING DESERT AREA	Proposed Facility	$3,162,183	$1,977,846
KRAMER	VICTOR - BARSTOW	Proposed Facility	$4,688,636	$1,977,846
			$12,539,455	$11,558,820
FUTURE STATIONS				
4 - SILVER LAKES / HELENDALE STATION	VICTOR - BARSTOW	Future Upgrades	0	$1,875,094
17 - BIG RIVER STATION	OUTLYING DESERT AREA	Future Upgrades	0	$1,875,094
31 - NEEDLES CITY STATION	OUTLYING DESERT AREA	Future Upgrades	0	$1,875,094
119 - WEST WONDER VALLEY STATION	MORONGO BASIN	Future Upgrades	0	$1,875,094
127 - NORTH TRONA STATION	OUTLYING DESERT AREA	Future Upgrades	0	$1,875,094
118 - HAVASU LANDING STATION	OUTLYING DESERT AREA	Future Upgrades	0	$1,875,094
111 - LUCERNE	VICTOR - BARSTOW	Future Upgrades	0	$1,875,094
19 - LANDERS	MORONGO BASIN	Future Upgrades	0	$1,875,094
GOFFS	OUTLYING DESERT AREA	Future Facility	$4,688,636	$1,977,846
VIDAL	OUTLYING DESERT AREA	Future Facility	$4,688,636	$1,977,846
KELSO	OUTLYING DESERT AREA	Future Facility	$4,688,636	$1,977,846
			$14,065,908	$20,934,290
		TOTAL	$26,605,363	$32,493,110

Source: Stanley R. Hoffman Associates, Inc.
San Bernardino County Fire Department

Table 7
County Fire Services Level of Service [1]: 2010
San Bernardino County Fire Department

	Mountain Division	North Desert Division	Victorville Division	South Desert Division	Valley Division	County Total	North and South Desert Divisions
Stations	8	20	8	17	15	68	37
Population Served	70,000	150,000	117,000	49,648	210,800	597,448	199,648
Square Miles	616	10,884	74	7,968	585	20,127	18,852
Population per Station	8,750	7,500	14,625	2,920	14,053	8,786	5,396
Sq Miles Served per Station	77	544	9	469	39	296	510

1. All information obtained from the San Bernardino County Fire Department.

Source: Stanley R. Hoffman Associates, Inc.
San Bernardino County Fire Department.

Table 8
Estimated Impact of Population Growth on Demand for Fire Services

	Outlying Desert	Victor-Valley Barstow	Morongo Basin	Desert Total
ESTIMATED 2008 to 2020 GROWTH [1]				
Population	202	7,760	1,495	9,457
Households	47	1,798	346	2,191
Employment	141	5,429	1,046	6,616
COST ALLOCATION TO POPULATION GROWTH				
Estimated Population Served per Station [2]	5,396	5,396	5,396	5,396
Projected Demand for Stations from Growth	0.04	1.44	0.28	1.75
Proposed New Stations [3]	2.00	1.00	0.00	3.00
Share of New Growth on Proposed Facilities				58.4%
Proposed New Station Facility Costs [3]	$7,850,819	$4,688,636	$0	$12,539,455
Cost Allocation to Population Growth				$7,325,673
Balance Costs to Proposed Projects				$5,213,782

1. Based on information provided by the San Bernardino County Land Use Services Department (LUSD) on projected General Plan growth by the three County General Plan Planning Areas -- Valley, Mountain and Desert. The growth projected for the Desert Planning Area was then allocated to the three Desert sub-regions -- Outlying Desert, Victor Valley/Barstow, and the Morongo Basin, based on historic housing permit trends.

2. The population served per station factor was developed from data on current level of services obtained from the County Fire Department for the North and South Desert Divisions.

3. Proposed new stations and their associated capital costs are shown in Table 4.

Source: Stanley R. Hoffman Associates, Inc.
San Bernardino County Fire Department
San Bernardino County Land Use Services Department

Table 9
Type of Service Calls by Geography: 2009
San Bernardino County

	Urban	Rural	Remote	Total	Rural and Remote	
Fire						
Residential	184	79	23	286	102	
Traffic	86	28	53	167	81	
Commercial	149	73	33	255	106	
Subtotal	419	180	109	708	289	
Medical/Other						
Residential	10,258	4,611	373	15,242	4,984	
Traffic	1,326	548	345	2,219	893	
Commercial	4,866	1,862	489	7,217	2,351	
Subtotal	16,450	7,021	1,207	24,678	8,228	
Total Calls	**16,869**	**7,201**	**1,316**	**25,386**	**8,517**	
Total Calls						
Residential	10,442	4,690	396	15,528	5,086	
Traffic	1,412	576	398	2,386	974	
Commercial	5,015	1,935	522	7,472	2,457	
	16,869	**7,201**	**1,316**	**25,386**	**8,517**	
Percent Distribution						Rounded
Residential	61.9%	65.1%	30.1%	61.2%	59.7%	60.0%
Traffic	8.4%	8.0%	30.2%	9.4%	11.4%	11.0%
Commercial	29.7%	26.9%	39.7%	29.4%	28.8%	29.0%
	100.0%	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Stanley R. Hoffman Associates, Inc.
San Bernardino County Fire Department

APPENDIX A
OVERVIEW OF SOLAR ENERGY TECHNOLOGIES[1]

Photovoltaic (PV) Systems

Photovoltaic systems produce clean, reliable energy through the conversion of sunlight directly into electricity via a process called the photovoltaic effect. PV systems are comprised of individual PV cells (also known as solar cells) made from semiconductor materials which are connected to form PV modules. PV modules generate direct current (DC) electricity, which is then passed through an inverter and converted into alternating current (AC) electricity. This energy can be used in a wide variety of residential and commercial applications, including utility power, lighting, communications, refrigeration, water purification, and crop irrigation.

Advantages of PV Systems

- PV systems require considerably less fire protection than thermal systems. As shown in Table 1, the 11 proposed PV projects in San Bernardino County were judged as a low to medium priority for emergency fire response, while the three thermal projects were judged as a very high priority for emergency fire response.
- Once built, PV systems have a much lower demand for on-site staff to perform operations and maintenance. This means fewer people at PV facilities, which lowers the demand for public services such as fire protection and emergency medical response.
- Unlike thermal systems, PV systems do not require water. This is particularly advantageous in the desert regions where many solar farms are proposed to be located.

Disadvantages of PV Systems

- PV systems are expensive to build. As a result, PV projects tend to be smaller and generate less electricity than thermal projects. For example, in San Bernardino County the most productive proposed PV project has an installed capacity of 104 megawatts (Rabbit Springs Solar), while the three proposed thermal projects have capacities ranging from 250 to 850 megawatts (see Table 1).

---

1 Sources:
U.S. Energy Information Administration <http://www.eia.doe.gov>
Solar Energy International <http://www.solarenergy.org>
Solar Developments <http://www.solardev.com>
SolarPACES <http://www.solarpaces.org>
The Energy Blog < http://thefraserdomain.typepad.com/energy/2005/09/about_parabolic.html >
Jones, J. (2000). "Solar Trough Power Plants." National Renewable Energy Laboratory.
The Center For Land Use Interpretation <http://www.clui.org/>

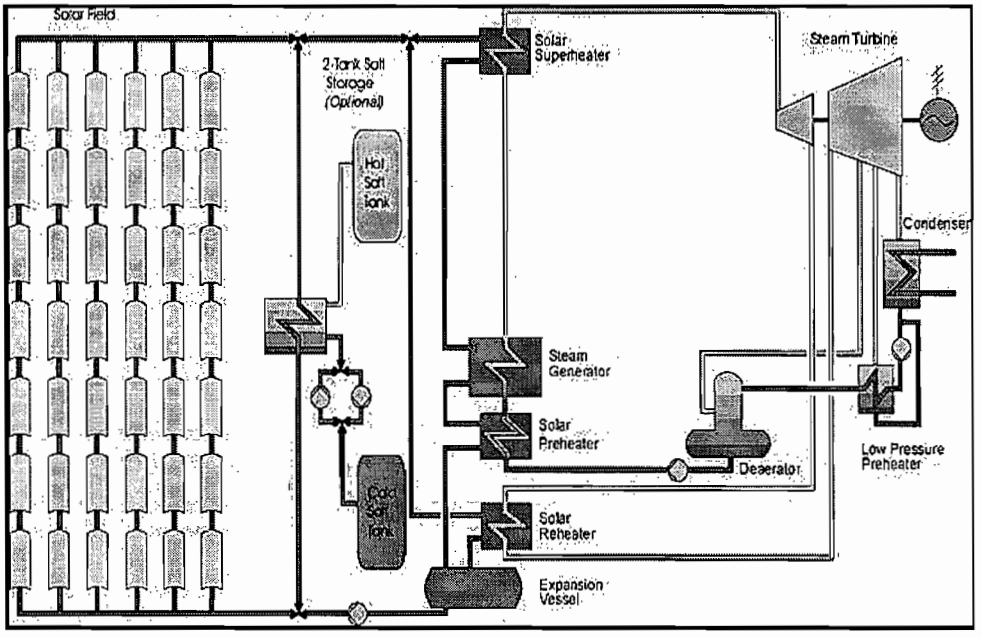
Thermal Systems

Thermal systems harness the sun's energy to heat transfer mediums, such as Therminol, to drive steam-turbine generating plants and produce energy. In the solar thermal hydrogen systems, the sun's energy causes the expansion and contraction of hydrogen to drive the turbine. The three main types of solar thermal systems are parabolic troughs, solar power towers, and dish systems. Each of these systems is represented in San Bernardino County. The Abengoa project uses parabolic trough technology; the Ivanpah project uses solar power tower technology; and the Solar One project uses dish systems technology.

Parabolic Trough

Illustrated in Figure A-1 is a parabolic trough solar thermal energy collector. A solar trough has a long, parabolic mirror that reflects sunlight onto a receiver tube located at the focus of the parabola. Heat transfer fluids such as Therminol run through the tube, absorb the concentrated sunlight, and then heat water to create steam. This steam is piped to an onsite turbine-generator to produce electricity, which is then transmitted over power lines. The solar trough can be rotated to track the sun as it moves throughout the day. On cloudy days, the plant has a supplementary natural gas boiler that can be used to heat the water, creating steam to generate electricity.

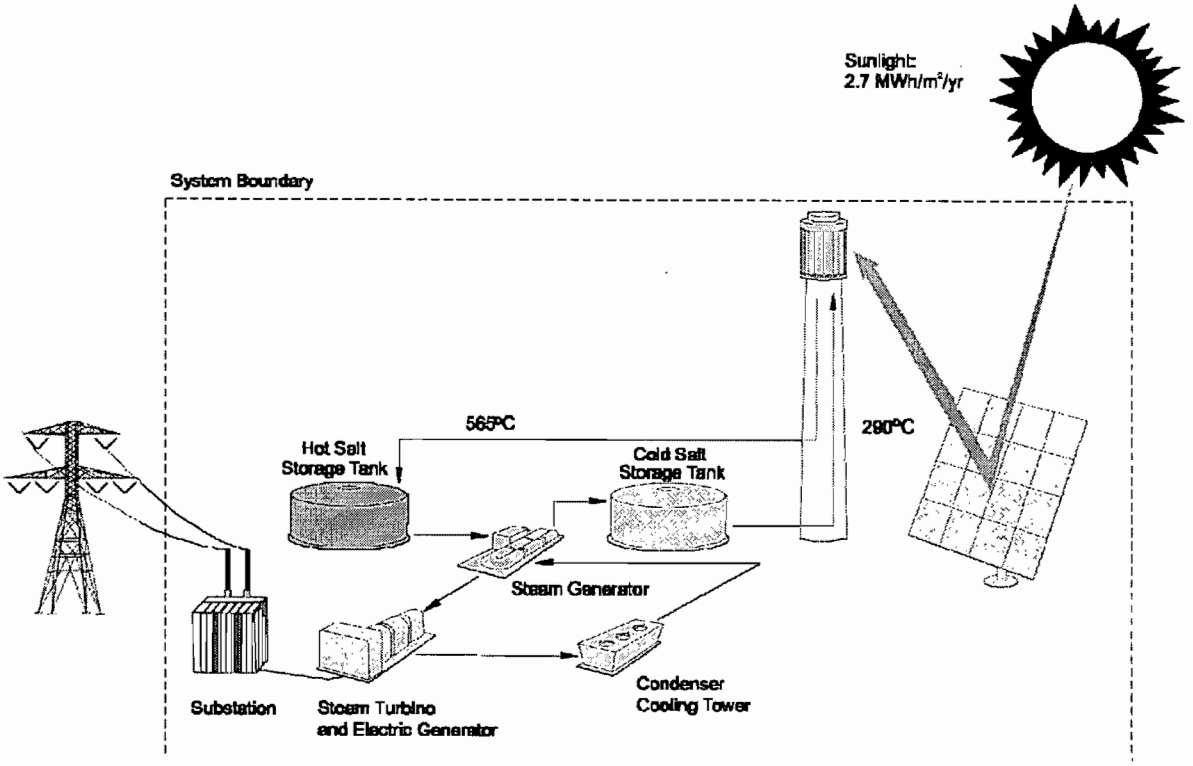
Figure A-1
Diagram of a Parabolic Trough



Solar Power Tower

As shown in Figure A-2, solar power towers are comprised of hundreds of large mirror assemblies, or heliostats, which track the sun and reflect solar energy onto a black tower-mounted boiler that absorbs the heat and converts water into high pressure steam. The high pressure steam is then carried to the ground where the steam is used to spin a series of turbines, much like a traditional power plant. Power towers must be large to be economical. This is a promising technology for large-scale, grid-connected power plants; however, it is in its early stages of development compared to parabolic trough technology.

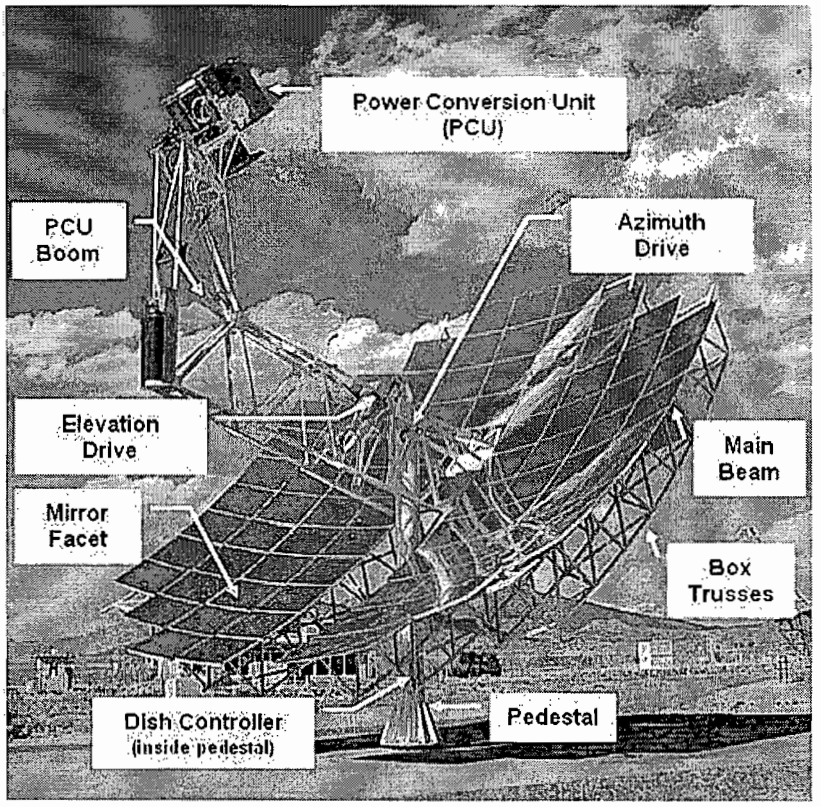
Figure A-2
Solar Power Tower System Schematic



Dish Systems

As shown in Figure A-3, a dish system consists of a large, parabolic dish (similar in shape to a satellite television dish) that reflects sunlight onto a receiver mounted at its center. The expansion and contraction of hydrogen is then used to power an engine. Typically, the receiver is mounted with a Stirling engine, although other types of engines are occasionally used. The engine is coupled with an electric generator that converts mechanical power into electricity. Dish systems can achieve high concentrations of light which result in higher temperatures and a more efficient conversion of solar energy to electricity.

Figure A-3: Dish System



Advantages of Thermal Systems

- Thermal systems produce more energy than PV systems. As shown previously in Table 1, in San Bernardino County the three thermal systems range from 250 to 850 megawatts, while the PV systems range from 1.3 to 104 megawatts.
- Solar thermal systems can work in the shade for brief amounts of time, since the heated fluids they depend on can stay hot enough to generate electricity for some time without the sun.

Disadvantages of Thermal Systems

- Thermal systems present a much higher fire risk than PV systems. As shown previously in Table 1, the San Bernardino County Fire Department and California Energy Commission jointly ranked the three thermal projects as very high priorities for emergency fire response, while the 11 PV projects were ranked as only low to moderate priorities.
- Unlike PV systems, thermal systems require on-site staff to perform operations and maintenance. Because individuals are required to work on-site, these systems require additional public services such as fire protection and emergency medical response.
- Thermal systems are larger and require more land than PV systems. As shown previously in Table 1, the three proposed thermal systems in San Bernardino County have disturbed acreages ranging from 1,765 acres to 8,230 acres, while the 11 proposed PV systems have disturbed acreages ranging from 12 acres to 922 acres.

EXB 330 - OSHA 2010a - Occupational Safety and Health Administration (TN 57384) Fire Fighters' Two-in/Two-out Regulation. Submitted to CEC on 6/29/2010.

Abengoa Mojave Solar 09-AFC-5

DOCKET
09-AFC-5
DATE JUN 29 2010
RECD. JUN 29 2010

Document Title: Occupational Safety and Health Administration – Fire Fighters' Two-in/Two-out Regulation

The attached regulation requires that interior structural fire fighting procedures provide for at least two fire fighters inside the structure. Two fire fighters inside the structure must have direct visual or voice contact between each other and direct, voice or radio contact with fire fighters outside the structure. This section has been dubbed the fire fighters' "two-in/two-out" regulation.

This regulation is being docked by CEC staff as a reference for Worker Safety and Fire Protection for the Abengoa Mojave Solar project.

United States Department of Labor
Occupational Safety and Health Administration
Fire Fighters' Two-in/Two-out Regulation

The federal Occupational Safety and Health Administration (OSHA) recently issued a revised standard regarding respiratory protection. Among other changes, the regulation now requires that interior structural fire fighting procedures provide for at least two fire fighters inside the structure. Two fire fighters inside the structure must have direct visual or voice contact between each other and direct, voice or radio contact with fire fighters outside the structure. This section has been dubbed the fire fighters' "two-in/two-out" regulation. The International Association of Fire Fighters and the International Association of Fire Chiefs are providing the following questions and answers to assist you in understanding the section of the regulation related to interior structural fire fighting.

1. What is the federal OSHA Respiratory Protection Standard?

In 1971, federal OSHA adopted a respiratory protection standard requiring employers to establish and maintain a respiratory protection program for their respirator-wearing employees. The revised standard strengthens some requirements and eliminates duplicative requirements in other OSHA health standards.

The standard specifically addresses the use of respirators in immediately dangerous to life or health (IDLH) atmospheres, including interior structural fire fighting. OSHA defines structures that are involved in fire beyond the incipient stage as IDLH atmospheres. In these atmospheres, OSHA requires that personnel use self-contained breathing apparatus (SCBA), that a minimum of two fire fighters work as a team inside the structure, and that a minimum of two fire fighters be on standby outside the structure to provide assistance or perform rescue.

2. Why is this standard important to fire fighters?

This standard, with its two-in/two-out provision, may be one of the most important safety advances for fire fighters in this decade. Too many fire fighters have died because of insufficient accountability and poor communications. The standard addresses both and leaves no doubt that two-in/two-out requirements must be followed for fire fighter safety and compliance with the law.

3. Which fire fighters are covered by the regulations?

The federal OSHA standard applies to all private sector workers engaged in fire fighting activities through industrial fire brigades, private incorporated fire companies (including the "employees" of incorporated volunteer companies and private fire departments contracting to public jurisdictions) and federal fire fighters. In 23 states and 2 territories, the state, not the federal government, has responsibility for enforcing worker health and safety regulations. These "state plan" states have earned the approval of federal OSHA to implement their own enforcement programs. These states must establish and maintain occupational safety and health programs for all public employees that are as effective as the programs for private sector employees. In addition, state safety and health regulations must be at least as stringent as federal OSHA regulations. Federal OSHA has no direct enforcement authority over state and local governments in states that do not have state OSHA plans.

All professional career fire fighters, whether state, county, or municipal, in any of the states or territories where an OSHA state plan agreement is in effect, have the protection of all federal OSHA health and safety standards, **including the new respirator standard and its requirements for fire fighting operations**. The following states have OSHA-approved plans and must enforce the two-in/two-out provision for all fire departments.

Alaska	Kentucky	North Carolina	Virginia
Arizona	Maryland	Oregon	Virgin Islands
California	Michigan	Puerto Rico	Washington
Connecticut	Minnesota	South Carolina	Wyoming
Hawaii	Nevada	Tennessee	
Indiana	New Mexico	Utah	
Iowa	New York	Vermont	

A number of other states have adopted, by reference, federal OSHA regulations for public employee fire fighters. These states include Florida, Illinois and Oklahoma. In these states, the regulations carry the force of state law.

Additionally, a number of states have adopted NFPA standards, including NFPA 1500, *Standard for Fire Department Occupational Safety and Health Program*. The 1997 edition of NFPA 1500 now includes requirements corresponding to OSHA's respiratory protection regulation. Since the NFPA is a private consensus standards organization, its recommendations are preempted by OSHA regulations that are more stringent. In other words, the OSHA regulations are the minimum requirement where they are legally applicable. There is nothing in federal regulations that "deem compliance" with any consensus standards, including NFPA standards, if the consensus standards are less stringent.

It is unfortunate that all U.S. and Canadian fire fighters are not covered by the OSHA respiratory protection standard. However, we must consider the two-in/two-out requirements to be the minimum acceptable standard for safe fire ground operations for <u>all</u> fire fighters when self-contained breathing apparatus is used.

4. When are two-in/two-out procedures required for fire fighters?

OSHA states that "once fire fighters begin the interior attack on an interior structural fire, the atmosphere is assumed to be IDLH and paragraph **29 CFR 1910.134(g)(4)** [two-in/two-out] applies." OSHA defines interior structural fire fighting "as the physical activity of fire suppression, rescue or both inside of buildings or enclosed structures which are involved in a fire situation beyond the incipient stage." OSHA further defines an incipient stage fire in **29 CFR 1910.155(c)(26)** as a "fire which is in the initial or beginning stage and which can be controlled or extinguished by portable fire extinguishers, Class II standpipe or small hose systems without the need for protective clothing or breathing apparatus." Any structural fire beyond incipient stage is considered to be an IDLH atmosphere by OSHA.

5. What respiratory protection is required for interior structural fire fighting?

OSHA requires that all fire fighters engaged in interior structural fire fighting must wear SCBAs. SCBAs must be NIOSH-certified, positive pressure, with a minimum duration of 30 minutes. **[29 CFR 1910.156(f)(1)(ii)]** and **[29 CFR 1910.134(g)(4)(iii)]**

6. Are all fire fighters performing interior structural fire fighting operations required to operate in a buddy system with two or more personnel?

Yes. OSHA clearly requires that all workers engaged in interior structural fire fighting operations beyond the incipient stage use SCBA and work in teams of two or more. **[29 CFR 1910.134(g)(4)(i)]**

7. Are fire fighters in the interior of the structure required to be in direct contact with one another?

Yes. Fire fighters operating in the interior of the structure must operate in a buddy system and maintain voice or visual contact with one another at all times. This assists in assuring accountability within the team. **[29 CFR 1910.134(g)(4)(i)]**

8. Can radios or other means of electronic contact be substituted for visual or voice contact, allowing fire fighters in an interior structural fire to separate from their "buddy" or "buddies"?

No. Due to the potential of mechanical failure or reception failure of electronic communication devices, radio contact is not acceptable to replace visual or voice contact between the members of the "buddy system" team. Also, the individual needing rescue may not be physically able to operate an electronic device to alert other members of the interior team that assistance is needed.

Radios can and should be used for communications on the fire ground, including communications between the interior fire fighter team(s) and exterior fire fighters. They cannot, however, be the sole tool for accounting for one's partner in the interior of a structural fire. **[29 CFR 1910.134(g)(4)(i)] [29 CFR 1910.134(g)(3)(ii)]**

9. Are fire fighters required to be present outside the structural fire prior to a team entering and during the team's work in the hazard area?

Yes. OSHA requires at least one team of two or more properly equipped and trained fire fighters be present outside the structure before any team(s) of fire fighters enter the structural fire. This requirement is intended to assure that the team outside the structure has the training, clothing and equipment to protect themselves and, if necessary, safely and effectively rescue fire fighters inside the structure. For high-rise operations, the team(s) would be staged below the IDLH atmosphere. **[29 CFR 1910.134(g)(3)(iii)]**

10. Do these regulations mean that, at a minimum, four individuals are required, that is, two individuals working as a team in the interior of the structural fire and two individuals outside the structure for assistance or rescue?

Yes. OSHA requires that a minimum of two individuals, operating as a team in direct voice or visual contact, conduct interior fire fighting operations utilizing SCBA. In addition, a minimum of two individuals who are properly equipped and trained must be positioned outside the IDLH atmosphere, account for the interior team(s) and remain capable of rapid rescue of the interior team. The outside personnel must at all times account for and be available to assist or rescue members of the interior team. **[29 CFR 1910.134(g)(4)]**

11. Does OSHA permit the two individuals outside the hazard area to be engaged in other activities, such as incident command or fire apparatus operation (for example, pump or aerial operators)?

OSHA requires that one of the two outside person's function is to account for and, if necessary, initiate a fire fighter rescue. Aside from this individual dedicated to tracking interior personnel, the other designated person(s) is permitted to take on other roles, such as incident commander in charge of the emergency incident, safety officer or equipment operator. However, the other designated outside person(s) cannot be assigned tasks that are critical to the safety and health of any other employee working at the incident.

Any task that the outside fire fighter(s) performs while in standby rescue status must not interfere with the responsibility to account for those individuals in the hazard area. Any task, evolution, duty, or function being performed by the standby individual(s) must be such that the work can be abandoned, without placing any employee at additional risk, if rescue or other assistance is needed. **[29 CFR 1910.134(g)(4)(Note 1)]**

12. If a rescue operation is necessary, must the buddy system be maintained while entering the interior structural fire?

Yes. Any entry into an interior structural fire beyond the incipient stage, regardless of the reason, must be made in teams of two or more individuals. **[29 CFR 1910.134(g)(4)(i)]**

*13. Do the regulations require two individuals outside for **each** team of individuals operating in the interior of a structural fire?*

The regulations do not require a separate "two-out" team for each team operating in the structure. However, if the incident escalates, if accountability cannot be properly maintained from a single exposure, or if rapid rescue becomes infeasible, additional outside crews must be added. For example, if the involved structure is large enough to require entry at different locations or levels, additional "two-out" teams would be required. **[29 CFR 1910.134(g)(4)]**

14. If four fire fighters are on the scene of an interior structural fire, is it permissible to enter the structure with a team of two?

OSHA's respiratory protection standard is not about counting heads. Rather, it dictates functions of fire fighters prior to an interior attack. The entry team must consist of at least two individuals. Of the two fire fighters outside, one must perform accountability functions and be immediately available for fire fighter rescue. As explained above, the other may perform other tasks, as long as those tasks do not interfere with the accountability functions and can be abandoned to perform fire fighter rescue. Depending on the operating procedures of the fire department, more than four individuals may be required. **[29 CFR 1910.134(g)(4)(i)]**

15. Does OSHA recognize any exceptions to this regulation?

OSHA regulations recognize deviations to regulations in an emergency operation where immediate action is necessary to save a life. For fire department employers, initial attack operations must be organized to ensure that adequate personnel are at the emergency scene prior to any interior attack at a structural fire. If initial attack personnel find a **known** life-hazard situation where immediate action could prevent the loss of life, deviation from the two-in/two-out standard may be permitted, as an exception to the fire department's organizational plan.

However, such deviations from the regulations must be **exceptions** and not defacto standard practices. In fact, OSHA may still issue "de minimis" citations for such deviations from the standard, meaning that the citation will not require monetary penalties or corrective action. The exception is for a known life rescue only, not for standard search and rescue activities. When the exception becomes the practice, OSHA citations are authorized. **[29 CFR 1910.134(g)(4)(Note 2)]**

16. Does OSHA require employer notification prior to any rescue by the outside personnel?

Yes. OSHA requires the fire department or fire department designee (i.e. incident commander) be notified prior to any rescue of fire fighters operating in an IDLH atmosphere. The fire department would have to provide any additional assistance appropriate to the emergency, including the notification of on-scene personnel and incoming units. Additionally, any such actions taken in accordance with the "exception" provision should be thoroughly investigated by the fire department with a written report submitted to the Fire Chief. **[29 CFR 1910.134(g)(3)(iv)]**

17. How do the regulations affect fire fighters entering a hazardous environment that is not an interior structural fire?

Fire fighters must adhere to the two-in/two-out regulations for other emergency response operations in any IDLH, potential IDLH, or unknown atmosphere. OSHA permits one standby person **only** in those IDLH environments in fixed workplaces, not fire emergency situations. Such sites, in normal operating conditions, contain only hazards that are known, well characterized, and well controlled. **[29 CFR 1910.120(q)(3)(vi)]**

18. When is the new regulation effective?

The revised OSHA respiratory protection standard was released by the Department of Labor and published in the Federal Register on January 8, 1998. It is effective on April 8, 1998.

"State Plan" states have six months from the release date to implement and enforce the new regulations.

Until the April 8 effective date, earlier requirements for two-in/two-out are in effect. The formal interpretation and compliance memo issued by James W. Stanley, Deputy Assistant Secretary of Labor, on May 1, 1995 and the compliance memo issued by Assistant Secretary of Labor Joe Dear on July 30, 1996 establish that OSHA interprets the earlier 1971 regulation as requiring two-in/two-out. **[29 CFR 1910.134(n)(1)]**

19. How does a fire department demonstrate compliance with the regulations?

Fire departments must develop and implement standard operating procedures addressing fire ground operations and the two-in/two-out procedures to demonstrate compliance. Fire department training programs must ensure that fire fighters understand and implement appropriate two-in/two-out procedures. **[29 CFR 1910.134(c)]**

20. What can be done if the fire department does not comply?

Federal OSHA and approved state plan states must ".. assure so far as possible every working man and woman in the Nation safe and healthful working conditions." To ensure such protection, federal OSHA and states with approved state plans are authorized to enforce safety and health standards. These agencies must investigate complaints and conduct inspections to make sure that specific standards are met and that the workplace is generally free from recognized hazards likely to cause death or serious physical harm.

Federal OSHA and state occupational safety and health agencies must investigate written complaints signed by current employees or their representatives regarding hazards that threaten serious physical harm to workers. By law, federal and state OSHA agencies do not reveal the name of the person filing the complaint, if he or she so requests. Complaints regarding imminent danger are investigated even if they are unsigned or anonymous. For all other complaints (from other than a current employee, or unsigned, or anonymous), the agency may send a letter to the employer describing the complaint and requesting a response. It is important that an OSHA (either federal or state) complaint be in writing.

When an OSHA inspector arrives, he or she displays official credentials and asks to see the employer. The inspector explains the nature of the visit, the scope of the inspection and applicable standards. A copy of any employee complaint (edited, if requested, to conceal the employee's identity) is available to the employer. An employer representative may accompany the inspector during the inspection. An authorized representative of the employees, if any, also has the right to participate in the inspection. The inspector may review records, collect information and view work sites. The inspector may also interview employees in private for additional information. Federal law prohibits discrimination in any form by employers against workers because of anything that workers say or show the inspector during the inspection or for any other OSHA protected safety-related activity.

Investigations of imminent danger situations have top priority. An imminent danger is a hazard that could cause death or serious physical harm immediately, or before the danger can be eliminated through normal enforcement procedures. Because of the hazardous and unpredictable nature of the fire ground, a fire department's failure to comply with the two-in/two-out requirements creates an imminent danger and the agency receiving a related complaint must provide an immediate response. If inspectors find imminent danger conditions, they will ask for immediate voluntary correction of the hazard by the employer or removal of endangered employees from the area. If an employer fails to do so, federal OSHA can go to federal district court to force the employer to comply. State occupational safety and health agencies rely on state courts for similar authority.

Federal and state OSHA agencies are required by law to issue citations for violations of safety and health standards. The agencies are not permitted to issue warnings. Citations include a description of the violation, the proposed penalty (if any), and the date by which the hazard must be corrected. Citations must be posted in the workplace to inform employees about the violation and the corrective action. **[29 CFR 1903.3(a)]**

It is important for labor and management to know that this regulation can also be used as evidence of industry standards and feasibility in arbitration and grievance hearings on fire fighter safety, as well as in other civil or criminal legal proceedings involving injury or death where the cause can be attributed to employer failure to implement two-in/two-out procedures. Regardless of OSHA's enforcement authority, this federal regulation links fire ground operations with fire fighter safety.

21. What can be done if a fire fighter does not comply with fire department operating procedures for two-in/two-out?

Fire departments must amend any existing policies and operational procedures to address the two-in/two-out regulations and develop clear protocols and reporting procedures for deviations from these fire department policies and procedures . Any individual violating this safety regulation should face appropriate departmental action.

22. How can I obtain additional information regarding the OSHA respirator standard and the two-in/two-out provision?

Affiliates of the International Association of Fire Fighters may contact:

International Association of Fire Fighters
Department of Occupational Health and Safety
1750 New York Avenue, NW
Washington, DC 20006
202-737-8484
202-737-8418 (FAX)

Members of the International Association of Fire Chiefs may contact:

International Association of Fire Chiefs
4025 Fair Ridge Drive
Fairfax, VA 22033-2868
703-273-0911
703-273-9363 (FAX)

Telephone Conversation Record

To:	Battalion Chief Mike Weis San Bernardino County Fire Department
From:	Shon Greenberg Risk Science Associates
Phone Number:	(760) 246-3331
Date:	January 5, 2010. 9:15am
Regarding:	Abengoa Mojave Solar Project

I described the project to Chief Weis and asked him to confirm the information provided in the AFC regarding nearby stations. He corrected me that station #25 in Hinkley is actually station #125, and noted that it is staffed with paid on-call firefighters. This means that their response time could be as little as 15 minutes, but if they are not available or on vacation then that station would not respond. The next closest SBCFD station is #4 in Helendale, on the corner of Vista and Helendale Rd. That station is staffed full time with 4 personnel and would respond within 20-30 minutes. Also, the Barstow fire department would respond through a mutual aid agreement.

All firefighters at the SBCFD are trained to at least EMT-1 and as first responders for hazardous materials incidents. The large majority (~95%) are also trained paramedics. The SBCFD has a fully equipped hazmat unit stationed at Station #322 in Adelanto, about 50 miles from the site. Chief Weis estimated that their response time would be about 45 minutes.

The SBCFD uses the 2007 California Fire code.

I asked Chief Weis if this proposed project would impact their ability to serve their jurisdiction. He replied that if a large incident occurred at this facility, they would move resources around, use additional county resources and mutual aid agreements, but there will be an impact. I asked him for the reason he thinks there would be an impact, and he replied that they have limited resources in that area in terms of staffing and equipment and a large incident at a power plant can definitely impact their ability to respond to other calls.

California Energy Commission
Energy Facilities Siting &
Environmental Protection Division
REPORT OF CONVERSATION

File: **09-AFC-5**

Project Title: Abengoa Mojave Solar

(x) TELEPHONE() MEETING LOCATION:

NAME: Alvin Greenberg Risk Science Associates	**TIME:** 1:07 pm	**DATE:** June 15, 2010
WITH: Peter Brierty, Assistant Chief/Fire Marshal San Bernardino County Fire Department 157 W. 5th St., 2nd Floor San Bernardino, CA 92415-0451	**PHONE** (909) 936-5533 Office	
ADDRESS:		

SUBJECT: Abengoa Mojave Solar Power Plant – fire protection

COMMENTS:

Assistant Chief/Fire Marshal Peter Brierty of the San Bernardino County Fire Department called me to discuss my earlier e-mail to him asking him to confirm my understanding of the costs involved in building and staffing a new fire station as mitigation for the impacts caused by the AMS power plant. My e-mail to him was based on a spreadsheet Chief Brierty had sent to me earlier and reads as follows:

"Looks like if you place a new station at Kramer Junction, it would cost ~4.7 M to build and equip with one engine and annual O&M for (3 or 9?) fire fighters would be $2.0 M. If you allocated 1/3 of the costs to Abengoa to mitigate its incremental direct and cumulative impact, that would be an initial payment of $1.4M and annual payments of $667K. Is this what you have in mind?

I am not sure the applicant would go along with that amount. Are there other facilities or new developments in the area that a new a station at Kramer junction would serve so as to reduce the incremental cost to AMS?"

Chief Brierty replied that this fire station and staffing levels of nine (9) fire fighters (FF Paramedic, Engineer, Captain for 3 shifts) were needed and in his opinion, allocating 1/3 of the costs to the AMS project was fair.

COPIES TO:	**NAME: Alvin Greenberg (Craig Hoffman for)** **SIGNATURE:**

EXB 315 - CEC 2010p - CEC / S. Greenberg (TN 57272). ROC Between R. Frymyer General Manager for SEGS 1 and 2 and Shon Greenberg. Submitted to CEC on 6/22/2010.

DOCKET
09-AFC-5
DATE MAY 25 2010
RECD. JUN 22 2010

Telephone Conversation Record

To: Richard Frymyer, General Manager
Sunray Energy, Cogentrix Solar Services

From: Shon Greenberg
Risk Science Associates

Phone Number: (760) 254- 3381
Date: May 25, 2010, 1:15pm

Regarding: Emergency response to SEGS 1 and 2, Daggett, CA

In response to my inquiry Richard Frymyer indicated that his company purchased this facility in February of 2009 so he doesn't have the prior safety records. However, he has reviewed their safety records (since he was also very interested in this topic when the facility was acquired) and to the best of his knowledge there were only three fire department/emergency responses to these facilities since they began operation in 1984. Two of the incidents were false alarms. The incidents are:

1. Feb 25, 1999: An HTF fire occurred in the HTF tanks. This was a major fire and the fire department was called upon. The HTF was allowed to burn itself out which took about 2 days. There were no injuries.

2. Feb 28, 2000: An employee had a suspected heart attack (which was actually caused by drinking a whole bottle of jabanyero hot sauce), and an ambulance responded from the fire department.

3. May 15-17, 2010: An HTF spill of about 60 gallons occurred in the solar field. The facility personnel cleaned it up on May 15th and reported it to San Bernardino County on the next business day, May 17th. When receiving the report the dispatcher misunderstood the report and sent out a 911 call indicating a spill is in progress. The whole fire department showed up on scene.

EXB 316 - CEC 2010q - CEC / A. Greenberg (TN 57321). Staff Decision Matrix. Submitted to CEC on 6/24/2010.

DOCKET
09-AFC-5
DATE JUN 24 2010
RECD. JUN 24 2010

Emergency Response Matrix

A. Response Criteria	points	weighting factor	SEGS 4-7	SEGS 8-9	AMS
1. Inspections		0.10			
a. minimal need	1				
b. average need	3		3	3	3
c. significant need	5				
		Net -->	*0.3*	*0.3*	*0.3*
2. Fire		0.50			
A. Quantity liquid fuel or hydrogen gas stored on-site		0.20			
a. <1,000 gal or <1000 lbs hydrogen gas	1				
b. >1000 and <100,000 gal or <10,000 lbs hydrogen gas	2				
c. >100,000 gal or >10,000 lbs hydrogen gas	5		5	5	5
		Net -->	*1.00*	*1.00*	*1.00*
B. Fire/Explosion off-site consequences		0.30			
a. Limited to site	1			1	
b. Potential for smoke and/or fire and/or minor blast effects off-site	2				
c. Potential for major fire/blast structure damage and/or injuries/fatalities off-site and/or major hwy disruption/closure	5		5		5
		Net -->	*1.50*	*0.30*	*1.50*
3. HazMat		0.10			
A. Proximity to sensitive receptors		0.05			
a. no sig quant of hazmats or no potential for off-site impacts within 1/2 mile	1			1	
b. <5 receptors within 1/2 mile	2				2
c. 5-10 receptors within 1/2 mile	3				
d. >10 within 1/2 mile	4				
e. impacts major highway/interstate	5		5		
		Net -->	*0.25*	*0.05*	*0.10*
B. Hazmat response time		0.05			
a. <30 minutes	1				
b. 30 - 60 minutes	3		3	3	3
c. >60 minutes	5				
		Net -->	*0.15*	*0.15*	*0.15*
4. Rescue		0.15			
a. <30 minutes	1		1	1	1
b. 30 - 60 minutes	3				
c. >60 minutes	5				
		Net -->	*0.15*	*0.15*	*0.15*
5. EMS					
EMS response time		0.15			
a. in-house EMT or <5 minutes response time	1				
b. 5 - 10 minute resposne time	2				
c. >10 and <15 minute response time	3			3	3
d. >15 and <30 minute response time	4		4		
e. >30 minute response time	5				
		Net -->	*0.60*	*0.45*	*0.45*
Sum weighting factors		**1.00**			
TOTAL SCORE		======>	3.95	2.4	3.65

LOW Priority: additional resources and mitigation may be needed.	0.1 - 1.5
MEDIUM Priority: additional resources and mitigation needed.	1.5 - 2.5
HIGH Priority: very significant need for additional resources and mitigation.	2.5 - 3.5
VERY HIGH Priority: urgent need for additional resources and mitigation.	>3.5

EXB 317 - CEC 2010r - CEC / A. Greenberg (TN 57264) Staff Draft Summary of SBCFD Responses to Solar Power Plants. Submitted to CEC on 6/22/2010.

Fire Department Response to Solar Thermal Power Plants

The following solar thermal power plants were surveyed for fire department response:

- SEGS I and II, Daggett, San Berbardino County, operational since 1984, (Cogentrix Solar Services)
- SEGS III-VII, Kramer Junction, San Bernardino County, operational since 1989, (NextEra Energy)
- SEGS VIII and IX, Harper Dry Lake, San Bernardino County, operational since 1989, (NextEra Energy)

The following types of incidents were surveyed:

1. Plan reviews
2. Hazmat and fire inspections
3. Emergency Response including medical, fire, rescue, and hazardous materials incidents

Survey Results:

1. Plan Review by the San Bernardino County Fire Department:

SEGS III-VII Kramer Junction
Waterline plan reviewed in 11/07, file 26688
Alarm plan approved 8/11/09, file 30483
Alarm plan currently in plan check, file 31003 (@ Victorville office)
Alarm Notification plan currently in plan check, file 31004 (@ Victorville office)

SEGS VII & IX Harper Dry Lake
Aboveground Tank approved 5/5/09, file 29308

2. Inspections, plan reviews, enforcement activities, and follow ups by the San Bernardino County Fire Department (SBCFD):

SEGS I & II: 10 inspections were conducted since 2008, totaling 24 hours of SBCFD time.

SEGS III-VII: 48 inspections were conducted since 2003, totaling 128 hours of SBCFD time.

SEGS VIII & IX: 29 inspections were conducted since 2004, totaling 105 hours of SBCFD time.

3. **Emergency response including fire, rescue, medical, and hazardous materials incidents:**

According to SBCFD's records, approximately 30 incidents occurred since 1998 that required the SBCFD (and other fire stations through mutual aid agreements) to respond to the three solar power plant sites. These include fires, fire alarm activations, injuries, medical emergencies, hazardous materials spills, complaints/calls from the public, and false alarms.

According to Richard Frymyer, the SEGS I & II general manager, only three incidents in the life of the plants ever required emergency services:

1. Feb 25, 1999: An HTF fire occurred in the HTF tanks. This was a major fire and the fire department was called upon. The HTF was allowed to burn itself out which took about 2 days. There were no injuries, but extensive damage.

2. Feb 28, 2000: An employee had a suspected heart attack (which was actually caused by drinking a whole bottle of hot sauce), and an ambulance responded from the fire department.

3. May 15-17, 2010: An HTF spill of about 60 gallons occurred in the solar field. The facility personnel cleaned it up on May 15th and reported it to San Bernardino County on the next business day, May 17th. When receiving the report the dispatcher misunderstood the report and sent out a 911 call indicating a spill is in progress. The whole fire department showed up on scene.

According to information received from the Glen King, the environmental manager for SEGS III through IX, the following five incidents were the only ones he can recall in the life of these plants that required fire department response:

1. 1998: A plant employee was performing repairs and received electrical shock when his wrench touched across electrical cables. He suffered burns on arm and neck and was air lifted to a hospital.

2. February 2002: An employee working on a pump lost two fingers in an accident and an ambulance was called to transport him to a hospital.

3. August 2002: The fire department hazmat unit was called to assist the plant personnel with a hazmat incident at SEGS III – VII. A temporary sulfuric acid (93%) storage tank at their water treatment facility had a faulty hose that broke and leaked sulfuric acid into a building where other chemicals were stored. It mixed with water and other chemicals and therefore required the fire department's help in clean up.

4. 2007: The fire department was called upon when 30,000 gallons of HTF spilled at SEGS VII.
5. Feb 2009: The fire department responded to a concerned citizen's call when they had a flex hose failure at SEGS VIII and a vapor cloud ignited. The fire department was not needed as plant staff had the situation under control.

Summary:

Relying on the data received from the SBCFD for the past 10 years, the department responded to about 30 incidents and emergencies at the nine solar units, including one major fire, two hazardous materials spills, and two medical emergencies. During the same period the SBCFD conducted approximately 90 inspections and visits for enforcement actions/plan reviews, totaling about 260 hours of personnel time.

EXB 318 - CSBFD 2010a - San Bernardino County Fire Department (TN 57267) SBCFD - Response Log 1998 to 2009 Submitted to CEC on 6/22/2010.

ccc/bdc number	date	time	remarks
98010253	02/18/1998	1041	MISC 040 , HARPER LAKE RD AT THE LUZ SOLAR PLANT.
98012783	03/01/1998	0931	TEXT 031 FX LEG / MEET RP AT POWER PLANT
98032684	06/09/1998	1336	TEXT 053 UNKN TYPE ALARM AT THE POWER PLANT / PER LLU SECURITY
98060460	10/19/1998	0844	MISC 070 (M4203) E125 , FIRE AT LUZ SOLAR PLANT//ADVISED OF PERMIT REQUIREMENTS
98063549	11/04/1998	0703	TEXT 050 SOLAR PLANT // LARGE FLAMES // LOTS OF BLACK SMOKE
98064220	11/07/1998	1341	DISP 061 (H0664) E40 AMR31 , AT THE POWER PLANT....SOMEONE WILL DIRECT
98064225	11/07/1998	1408	TEXT 090 BACK INJ///LZ AT THE POWER PLANT AT THE HELOSPOT....CONTACT BE48 ON CALCO RD...TB 4565 F7
99011628	02/26/1999	1812	CHGLOC 033 SOLAR PLANT/ZZZ TO 35100 SANTE FE
99019822	04/07/1999	2221	TEXT 031 UNIV POWER PLANT - POSS HEART -
99025686	05/07/1999	1208	TEXT 041 ELECTRICAL FIRE AT THE MIDDLE POWER PLANT
99025843	05/08/1999	0620	TEXT 054 MALE FELL BACKWARDS/HIT HEAD ON RAILING/AT POWER PLANT
99030487	05/31/1999	1430	MISC 044 , TAKE THE Y NORTH AWAY FROM THE POWER PLANT
99038079	07/06/1999	2206	MISC 068 (10546) , S/O ADVISES ARCING LINES BEHIND POWER PLANT AT 810 3RD ST.
99051027	09/15/1999	0604	ADVISD 083 PASSING A KIDNEY STONE/ MOJAVE SIPHON POWER PLANT 16001 HWY 173/ DSRT COM MADVISED
13824	03/12/2000	1724	TEXT 029 THE POWER PLANT/ GEN FIRE ALM
25326	05/15/2000	1103	TEXT 046 FIRE AT THE KRAMER SOLAR PLANT, E89 RESPONDING
25326	05/15/2000	1237	MISC 095 (H2744) , DAVE RIB, AN EMPLOYEE REP SOLAR PLANT GAVE THE FOLLOWINGINFORMATION ON THE INCIDENT.
25326	05/15/2000	1245	MISC 377 (H2744) , FIRE WAS IN A PUMP LOCATED IN SEGS (SOLAR ELECTRICAL GENERATINGSYSTEMS) "FIVE". THERE ARE 5 SEGS IN THIS SOLAR PLANT. FIRE WAS CAUSED BY AFLASH AND DOLLAR L PER DAVE RIB.. ANYMEDIA REQ FOR MORE INFO, THEY CAN CONTACT MR RIB AT THE PLANT AT760-762-5562 EXT 246...FIRE WAS CONTAINED BY ON SITE FIRE APPARATUS. NO HAZMAT INVOLVED.
31488	06/16/2000	1745	MOVEOS 023 (F1435) E53 SOLARION IC
50537	09/15/2000	1015	TEXT 043 BUS-SOLAR INK/MANUAL PULL ON FIRE COMMAND 2
59683	11/01/2000	0017	TEXT 021 POWER PLANT EXPLOSION
1001805	01/09/2001	0342	MISC 095 (M4203) E31 , CORNER OF BUSH AND O ST....2ND REPORT ADVISING POWER POLE ONFIRE NOT POWER PLANT
1012121	02/26/2001	0147	TEXT 075 SOLAR PLANT - MALE 36/ AMPUTATED FINGERS/ SUBJ BEING BROUGHT TO MAIN OFFICE
1023952	04/25/2001	1438	TEXT 046 AT SOLARIS HOLDING//ZONE 5 WATERFLOW 2ND FLOOR
1029392	05/21/2001	1735	MOVEOS 025 (H2744) AC4101 "SOLAR IC"
1029392	05/21/2001	2120	MOVEOS 022 (A7909) BC140 SOLAR IC
1029392	05/21/2001	2127	MISC 063 (A7909) , PER NOAH AT DES COMM BC140 HAS NOW ASSUMED "SOLAR IC"
1029392	05/21/2001	2319	MOVEOS 022 (C0662) C4100 SOLAR IC
1038564	07/01/2001	1708	TEXT 053 GEN FIRE AT THE POWER PLANT TB 647-B1 CROSS TAYLOR ST
1042388	07/17/2001	1029	TEXT 038 SOLAR PLANT IN DAGGETT..POSS STRUCTURE
1045426	07/31/2001	1436	TEXT 064 SOLAR LINK INTL...ME138 ON FIRE COMMAND 2 ..REQ E74..MANUAL PULL
1046896	08/07/2001	1334	TEXT 073 GENERAL FIRE ALARM AT THE POWER PLANT / ALSO SHOWS ADRESS OF 11040 TAYLOR
1048135	08/13/2001	0643	TEXT 052 COOL WATER SOLAR PLANT- FALL VICTIM FROM 40 FT TOWER
1048141	08/13/2001	0709	TEXT 048 FALL VICT 3762 D1//SOLAR PLANT AIR OPS ON CALCOR
1064022	10/24/2001	0545	TEXT 049 TWO LARGE BLAST NEAR THE POWER PLANT, NO ADD INFO
1068227	11/12/2001	2025	TEXT 101 PASSERBY SAW A FLASH AT THE POWER PLANT - POWER WENT OFF MOMENTAIRLY THENCAME BACK ON - SEES NO FIRE
2007551	02/05/2002	1658	TEXT 044 POWER PLANT X-ANDERSON /GENERAL FIRE ALARM /
2012325	02/26/2002	0610	TEXT 028 SOUTHWEST END OF POWER PLANT
2013243	03/02/2002	0743	TEXT 040 SOLAR PLANT FIRE, LARGE OUTSIDE OIL FIRE
2024007	04/21/2002	1042	TEXT 105 NEAR SOLAR PLANT...POSS CROSS OF HARPER LAKE RD X ROY...OUT OF CONTROL BURNJOB....RP PHONE # 760-7625424
2036894	06/19/2002	0014	MISC 072 (B2816) , LL ON CALL FOR WATER PAGED TO CALL THE DANA AT THE POWER PLANT
2037295	06/20/2002	1733	TEXT 044 1/2 E OF SOLAR PLANT...LARGE COLUMN OF SMOKE
2041718	07/08/2002	1658	TEXT 064 POWER PLANT..GENERAL FIRE....PERSON TO MEET YOU AT UNIVERSITY CT
2041887	07/09/2002	1334	TEXT 059 POWER PLANT...GENERAL FIRE ALARM MADE ACCESS OFF UNIVERSITY
2044039	07/18/2002	1928	TEXT 043 AT THE POWER PLANT, GEN FIRE ALARM NO RESET
2052135	08/24/2002	2200	NEWLOC 026 (F1435) RED SOLAR INCIDENT
2052135	08/24/2002	2202	MOVEOS 021 (F1435) E125 SOLAR IC
2052135	08/24/2002	2220	MOVEOS 022 (F1435) BC149 SOLAR IC

2059978 09/28/2002 2328 TEXT 085 NEAR AZ 95 AT COURTRIGHT, NEAR THE SOUTH POINT POWER PLANT, REQ AMBULANCE.TB 352 D10
2075159 12/09/2002 1118 MISC 091 (A7910) ME62 , EDISON POWER PLANT NOTHING SHOWING DID HAVE AN EXPLOSION WITHA POWER OUTAGE
3014343 03/04/2003 1439 TEXT 018 AT THE POWER PLANT
3022802 04/12/2003 1559 TEXT 085 NEAR LG POWER PLANT, TOWARDS END OF ESCONDIDO, NEAR LARGE BUSH, NUMEROUSDRUMS DUMPED
3029305 05/12/2003 2012 TEXT 118 E911 TIME: 201002 SEVERAL EXPLOSIONS HEARD AT EDISON SUB POWER PLANT ACROSSFROM THIS ADDRESS :ELECTRICITY OUT IN AREA
3044743 07/15/2003 1517 TEXT 026 POWER PLANT SMOKE DETECTOR
3073855 11/14/2003 1302 TEXT 086 POWER PLANT-GENERAL FIRE ALARM-POSS SMOKE FROM A WELDER OR DUST IN THE AREA-RP UNSURE
3078657 12/05/2003 1422 TEXT 038 POWER PLANT..GENERAL ALARM..X PROSPECT
3084807 12/29/2003 0812 TEXT 061 E911 TIME: 081017 RP SEE SMOKE BEHIND THE FONTANA POWER PLANT
3085269 12/31/2003 0947 TEXT 122 PROSPECT BTWN ANDERSON AND THE FIRST DRIVEWAY ON THE NORTH SIDE OF THESTREET \\ WATER LEAKING INTO THE POWER PLANT TUNNEL
4015231 03/08/2004 1900 TEXT 070 LARGE FLASH OF LIGHT SEEN FROM THE POWER PLANT / POSS TRANSFORMER FIRE
4037936 06/17/2004 1131 TEXT 089 E911 TIME: 113004 AT THE CONSTRUCTION AREA OF THE POWER PLANT, 40 Y/O MAN,POSSIBLE HEART
4045870 07/20/2004 1017 TEXT 060 E911 TIME: 101550 40Y FEM,FALL ARM INJ/EMPLOYEE, POWER PLANT
4060317 09/20/2004 1931 TEXT 091 NEAR POWER PLANT, MC T/C 1 MALE SUBJ, REQ'G AMB, BETWEEN NORTH DYKE ENTRANCEAND CORTWRIGHT
4067327 10/20/2004 2218 MISC 040 (B5541) E4 , STEAM FROM POWER PLANT - MI
4071679 11/09/2004 0725 TEXT 126 E911 TIME: 072133 ILL 51 YOM, HI BP, AT THE POWER PLANT. MEET RP IN A SMALLWHT P/U AT THE CORNER OF SAN BERNARDINO & MTN VIEW
4072656 11/13/2004 2126 MISC 078 (O0407) E127 , ALL THE POWER IS OFF ST THE POWER PLANT - BACK UP LIGHTS AREON
4075684 11/27/2004 0920 MISC 048 (A7909) E40 , STAGE AT POWER PLANT AND ESCONDIDO
4075684 11/27/2004 0924 MISC 069 (A7909) E40 , NEED A/S ME301 GC CALCOR LZ ON ESONDIDO, BY POWER PLANT
5007686 02/01/2005 0923 TEXT 034 POWER PLANT GENERAL BLG FIRE ALARM
5041246 06/25/2005 1324 TEXT 164 ON 58 10 MILES EAST OF KRAMER JUNCTION/RP WILL MEET ON RED HONDA DIRT BIKENEAR SOLAR PANELS/50 YOM OFF RD TC/DISORIENTED/INJURED RIGHT WRISTS ANDSHOULDER/HIT HEA
5047481 07/18/2005 0841 ADVISD 090 POWER PLANT UNDER CONTRUCTION/POSS HEART, X OF THE SANTA ANA WASH, CALLGIVEN TO CITY FIRE
5047482 07/18/2005 0845 MISC 021 (B5541) , POWER PLANT
5047854 07/19/2005 1554 CHGLOC 051 KECK SOLAR PLANT, DAGGETT TO 35100 SANTA FE ST ,DAG
5047854 07/19/2005 1604 MISC 168 (H2744) , | VEG FIRE/LIGHTNING STRIKES- DAGGETT AREA/OLD SEGS 1 SOLAR PLANT-70 PLUS ACRES AT THIS TIME AT THE RIVER BOTTOM.HAS BEEN SENT TO THEFOLLOWING PAGER(S):9911
5050516 07/30/2005 0347 TEXT 037 EXPLOSION FROM A POWER PLANT BUILDING
5054917 08/17/2005 1029 TEXT 095 AT THE POWER PLANT, FEMALE WAS FOUND ON PROPERTY, ALOC, SHE WALKED TO LOCFROM HER DISABLED VEH
5069994 10/21/2005 1759 TEXT 143 CHECK AT THE SOLAR PLANT- REPORTS OF CLOUD ABOVE IT- PLANT STATES ITS HEATTRANSFER FLUID- PASSERBYS ARE HAVING ISSUES- IRRITATING TO THE EYES-
5073831 11/08/2005 0232 MISC 042 (F1435) DES1 , ACROSS FROM THE POWER PLANT
5085786 12/29/2005 1751 TEXT 136 FLAMES FROM VEG ON AN OLD RANCH 8 MILES NORTH OF 58 ON HARPER LAKE RD/ RPCALLING FROM THE SOLAR PLANT AND IS VISIBLE FROM THIS LOCATION
6002347 01/09/2006 1807 TEXT 118 SOLAR PLANT, NOTIFICATION ONLY 75 GAL MONSANO VP1 HEAT TXFER FLUID SPILL,CLEAN UP CREW OS, X282 ALSO CELL #7609649862
6005946 01/25/2006 1443 TEXT 082 GENERATOR ACTIVATION AT BLDG JUST OUTSIDE POWER PLANT. X-ANDERSON.. DID NOTVERIFY
6008209 02/04/2006 1627 TEXT 094 E911 TIME: 162501 *STAND BY* SO ENRT // RIVERSIDE CANAL POWER PLANT / 5150MALE COMP OF PAIN /
TITLE:CAD Narrative [CRLF]CAD Inc #: 06008209 Sheriff Inc#: ALS MEDICAL AID E911 TIME: 162501 *STAND BY* SO ENRT // RIVERSIDE CANAL POWER PLANT / 5150 MALE COMP OF PAI
6004975 02/04/2006 0001 [CRLF]At 1627 hours on Saturday February 4, 2006 we were dispatched to an EMS call. Two units were assigned to this incident. Two personnel responded. We arrived on scene at 1633 hours and cleared at 1653 hours. Th
6010688 02/15/2006 1158 TEXT 069 RP ADV CHEM SPRAY OVER US 395 FROM SOLAR PLANT JNO KRAMER JCT, CHP ER
6010688 02/15/2006 1206 MISC 141 (F1435) , RP HAS LEFT THE AREA, GOING TOWARDS ADELANTO, THIS WAS A GAS, NOTA LIQUID, WAS NEAR THE SOLAR PLANT, RP CELL PHONE IS 949-212-2548
6006421 02/15/2006 0000 TITLE:CAD Narrative [CRLF]CAD Inc #: 06010688 Sheriff Inc#: HAZARDOUS MATERIALS RP ADV CHEM SPRAY OVER US 395 FROM SOLAR PLANT JNO KRAMER JCT, CHP ER[CRLF]
6011266 02/18/2006 0231 TEXT 029 SMOKE COMING FROM POWER PLANT
6022083 04/06/2006 1440 MISC 066 (H2730) , RED BC STS POSSIBLY NEAR THE POWER PLANT NEAR RED BORDER
6034449 05/30/2006 1136 TEXT 033 GEN FIRE ALARM AT THE POWER PLANT
6034449 05/30/2006 1146 MISC 044 (M4694) MS251 , POWER PLANT NO9THING SHOWING
6038705 06/17/2006 0956 TEXT 029 VEG FIRE NEAR THE POWER PLANT
6075556 11/18/2006 0930 MISC 163 (C5205) , *** PER RO: HOLE IS ON HELENDALE BTWN STATE 58 AND SILVER LAKES,RP WAS CALLING FROM THE SOLAR POWER PLANT, MAKE CONTACT W/ANYONE AT CB# IFANY QUESTIONS
6075556 11/18/2006 0930 MISC 163 (C5205) , *** PER RO: HOLE IS ON HELENDALE BTWN STATE 58 AND SILVER LAKES,RP WAS CALLING FROM THE SOLAR POWER PLANT, MAKE CONTACT W/ANYONE AT CB# IFANY QUESTIONS
7017023 03/10/2007 2026 ADVISD 203 REF CAD #014, FEM SUBJ FROM INC WAS W/ 2 MALE SUBJ ALSO LOST SOMEWHERE ONTHE BASE PAST THE SOLAR PANELS IN A VAN OR MOTORHOME W/2 FLATS, PER SBSO RP#714421664
7012220 03/22/2007 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 07019896 Sheriff Inc#: FALSE ALARM FONTANA TRUCK STOP: AIR DUCT SMOKE DET/ PREM 909-829-6671SOLAR SYSTEM 455 8002280580[
7027251 04/24/2007 1245 TEXT 024 FIRE ALARM - POWER PLANT
7055255 08/19/2007 1020 MISC 069 S4 , MET WITH RP FROM SOLAR PLANT, DIRECTING FURTHER TO POSS LOCATION
7062835 09/19/2007 2310 TEXT 039 IN POWER PLANT / RP WILL MEET AND GUIDE

7066984 10/08/2007 1900 MISC 053 (B8165) BP125 , IN AREA - MAKING ACESS TO SOLAR PLANT
7070089 10/22/2007 0528 ONSCNE 062 (B8165) C-3600 , BEST ACCESS GRASS VALLEY RD TO POWER PLANT RD
7084685 12/22/2007 1147 TEXT 020 NEAR THE POWER PLANT
TITLE:CAD Narrative [CRLF]CAD Inc #: 07084685 Sheriff Inc#: TC W/NO INJURIES NEAR THE POWER PLANTRIVER MEDICAL RHONDA 7025214818[CRLF][CRLF]TITLE:New
7052032 12/22/2007 0000 Saturday December 22, 2007 we were dispatched to a vehicle accident with no injuries. Four units were assigned to this incident. We arrived on scene at 1159 hours and cleared at 1215 hours. The incident occurred at On F
8012798 02/20/2008 0931 ADVISD 155 STATES HE IS LOOKING ACROSS THE RIVER AND STATES THERE IS A VEG FIRE NEXT TOTHE POWER PLANT. ADV MOJAVE VLY WHO STATES THEY HAVE SEVERAL BURNS IN THE AREA
8020933 03/25/2008 2227 TEXT 042 ELECTRICAL POWER PLANT / RP # 909-208-6521
8012751 03/25/2008 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 08020933 Sheriff Inc#: UNABLE TO LOCATE ELECTRICAL POWER PLANT / RP # 909-208-6521SBSO[CRLF]
8031076 05/08/2008 1407 TEXT 041 VEH INTO BLDG, POWER PLANT, BLUE CORVETTE
8018734 05/08/2008 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 08031076 Sheriff Inc#: TC W/EXTRICATION NEEDED VEH INTO BLDG, POWER PLANT, BLUE CORVETTECHP TXFER 9098253414[CRLF]
8038613 06/07/2008 1641 MISC 068 (D8247) , PER MOHAVE VALLEY THIS IS GOING TO BE NEAR THE POWER PLANT
8038613 06/07/2008 1653 MISC 138 (D8247) , PER MOHAVE VALLEY FIRE GAVE UPDATED ADDRESS TO FIRE / THIS ISGOING TO BE NEAR THE POWER PLANT AT 3775 COURTWRIGHT RD X VIEW LN.
8042653 06/23/2008 1339 MISC 121 (10546) , S.O UNIT ADVISED ON SCENE NORTH END / OF EDISON POWER PLANT - SEESA PROBLEM NOT ABLE TO CONFIRM FIRE OR SMOKE/
8044143 06/29/2008 1857 TEXT 063 35MALE / SOLAR POWER PLANT - 395 2 MILE N/O JUNCTION / EXT. 700
8044143 06/29/2008 1857 TEXT 063 35MALE / SOLAR POWER PLANT - 395 2 MILE N/O JUNCTION / EXT. 700
8044143 06/29/2008 1910 MISC 047 (B6449) , SOLAR PLANT WILL MEET AT 58/HELENDALE
8046564 07/08/2008 1641 TEXT 050 TWO FIRES BURNING BY THE SOLAR PLANTS/ CHP IN AREA
8046564 07/08/2008 1659 MISC 044 (B6449) BE4 , IN AREA OF THE SOLAR PLANT UTL
8027875 07/08/2008 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 08046564 Sheriff Inc#: UNABLE TO LOCATE TWO FIRES BURNING BY THE SOLAR PLANTS/ CHP IN AREACHP[CRLF]
8067935 10/05/2008 1850 TEXT 033 POWER PLANT FIRE ALARM ACTIVATION
8067935 10/05/2008 1856 MISC 042 T251 , 2 STORY POWER PLANT NOTHING SHOWING
8074656 11/02/2008 1457 TEXT 127 TRANSFORMER FROM EDISON POWER PLANT EXPLODED, TRAFFIC LIGHTS IN THE AREA NOWOUT, CHP ADV WILL NOTIFY EDISON, ALSO REQ CO ROADS
TITLE:CAD Narrative [CRLF]CAD Inc #: 08074656 Sheriff Inc#: ELEC INCIDENT - OUTSIDE TRANSFORMER FROM EDISON POWER PLANT EXPLODED, TRAFFIC LIGHTS IN THE AREA NOW OU
8044802 11/02/2008 0001 REQ CO ROADSCHP[CRLF][CRLF]TITLE:ME10 [CRLF]At 1457 hours on Sunday November 2, 2008 we were dispatched to an electrical wiring/equipment problem. One unit was assigned to this incident. We arrive
8085249 12/17/2008 1720 TEXT 021 SOLAR PLANT, 64YM SOB
TITLE:CAD Narrative [CRLF]VERIZON WIRELESS 800 451 5242 Master Incident Number:09-011167 ON WIRELESS 800 451 BDC 09005650 Primary Jurisdiction Inc.#: BDC 09005650 Dispos
9005650 02/07/2009 0001 # 02/07/2009 18:56:29B8165 W/O SOLAR PLANT OFF RDWY IN DESERT 02/07/2009 18:53:54SYS WPH2 LAT:34.99401900 LON:-117.567379 METERS:57 %:095 02/07/2009 18:56:34B81
TITLE:CAD Narrative [CRLF]JULIE Master Incident Number:09-023604 BDC 09011634 Primary Jurisdiction Inc.#: BDC 09011634 Disposition:03/20/2009 15:05:58TS
9011634 03/20/2009 0001 15:05:52S3402 LARGE COLUMN OF BLACK SMOKE, POSS NEAR THE SOLAR PLANT 03/20/2009 15:05:58S3402 604 03/20/2009 15:06:16TSSIntRMS: Confire SunproExternal Case Number 'BD
TITLE:CAD Narrative [CRLF]CAD Master Incident Number:09-032897 BDC 09016020 Primary Jurisdiction Inc.#: COL 09001508 Disposition:04/20/2009 15:48:06TSS Alarm Permit #
9016020 04/20/2009 0001 BRUSH FIRE POWER PLANTS CUTTING BRUSH 04/20/2009 15:48:52B6449 1 ACRE 04/20/2009 15:49:20B6449 POWER PLANT WAS CUTTING BRUSH AND STARTED THE FIRE ABOUT 1 AC
TITLE:CAD Narrative [CRLF]VVSO Master Incident Number:09-046123 BDC 09022469 Primary Jurisdiction Inc.#: BDC 09022469 Disposition:06/02/2009 23:50:49TS
9022469 06/02/2009 0001 23:50:47H0664 S.O. ER ...REPT BONFIRE IN THE AREA OF THE POWER PLANT 06/02/2009 23:51:15TSSIntRMS: Confire SunproExternal Case Number 'BDC 09022469' added for San Bernardino County. 0
TITLE:CAD Narrative [CRLF]CAD Master Incident Number:09-086249 BDC 09041365 Primary Jurisdiction Inc.#: BDC 09041365 Disposition:09/15/2009 05:33:10TSS Alarm Permit #
9041365 09/15/2009 0000 ATTHE ENDOF HAR;PER DY LAKE BY THE SOLAR PLANT GOINFG NORTH OF HY 58 09/15/2009 05:32:59H0664 249 09/15/2009 05:33:48TSSIntRMS: Confire SunproExternal Case Number 'BDC 090413

EXB 319 - CSBFD 2010b - San Bernardino County Fire Department (TN 57268) SBCFD - Mitigation Response Material from June 2010. Submitted to CEC on 6/22/2010.

Emergency Response Matrix

A. Response Criteria		points	weighting factor	Kramer	Harper	Lucerne	Abengoa	Ivanpah	Solar 1	SolarTech	Solun	Strawbry	Boule KJ	LightSrc	Boule LV	RBT Spgs	Red Co	Axio JT	Axio EM
1. Inspections			0.10																
a.	minimal need	1								1	1	1	1	1	1	1	1	1	1
b.	average need	3		3	3	3													
c.	significant need	5					5	5	5										
			Net -->	*0.3*	*0.3*	*0.3*	*0.5*	*0.5*	*0.5*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*
2. Fire			0.50																
A. Quantity stored on-site			0.20																
a.	<1,000 gal	1				1		1		1	1	1	1	1	1	1	1	1	1
b.	>1000 and <100,000 gal	2																	
c.	>100,000 gal Therminol or High Volume High Pressure Hydrogen	5		5	5		5		5										
			Net -->	*1.00*	*1.00*	*0.20*	*1.00*	*0.20*	*1.00*	*0.20*	*0.20*	*0.20*	*0.20*	*0.20*	*0.20*	*0.20*	*0.20*	*0.20*	*0.20*
B. Fire/Explo	On site and off site consequence		0.30																
a.	Limited to site	1				1				1	1	1	1	1	1	1	1	1	1
b.	Potential for smoke and/or fire and/or	2																	
	minor blast effects	3			3			3	3										
c.	Potential for major fire/blast structure damage	4																	
	and/or injuries/fatalities off-site and/or major hwy disruption/closure	5		5			5												
			Net -->	*1.50*	*0.90*	*0.30*	*1.50*	*0.90*	*0.90*	*0.30*	*0.30*	*0.30*	*0.30*	*0.30*	*0.30*	*0.30*	*0.30*	*0.30*	*0.30*
3. HazMat			0.10																
A. Proximity to or potential for effect on all human receptors			0.05																
a.	no sig quant of hazmats or no potential for off-site impacts within 1/2 mile	1				1				1	1	1					1	1	
b.	<10 receptors within 1/2 mile	2											2	2	2	2			2
c.	>10 receptors within 1/2 mile	3			3		3												
d.	>50 within 1/2 mile	4																	
e.	>100	5		5				5	5										
			Net -->	*0.25*	*0.15*	*0.05*	*0.15*	*0.25*	*0.25*	*0.05*	*0.05*	*0.05*	*0.10*	*0.10*	*0.10*	*0.10*	*0.05*	*0.05*	*0.10*
B. Hazmat response time			0.05																
a.	<30 minutes	1						1	1	1	1	1	1	1	1	1	1	1	1
b.	30 - 60 minutes	3		3	3	3													
c.	>60 minutes	5					5												
			Net -->	*0.15*	*0.15*	*0.15*	*0.25*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*
4. Rescue First Alarm			0.15																
a.	< 30 minutes	1		1						1	1	1	1	1	1	1	1	1	1
b.	30 - 60 minutes	3			3	3	3												
c.	>60 minutes	5						5	5										
			Net -->	*0.15*	*0.45*	*0.45*	*0.45*	*0.75*	*0.75*	*0.15*	*0.15*	*0.15*	*0.15*	*0.15*	*0.15*	*0.15*	*0.15*	*0.15*	*0.15*
5. EMS Response of Certified Medic																			
EMS response time			0.15																
a.	No Staff on site	1								1	1	1					1	1	
b.	<15 minute resposne time	2				2							2	2	2	2			2
c.	>15 <30 minute response time	3			3		3												
d.	>30 and < 60 minute response time	4		4															
e.	>60 minute response time	5						5	5										
			Net -->	*0.60*	*0.45*	*0.30*	*0.45*	*0.75*	*0.75*	*0.15*	*0.15*	*0.15*	*0.30*	*0.30*	*0.30*	*0.30*	*0.15*	*0.15*	*0.30*
	Sum weighting factors		**1.00**																
TOTAL SCORE			======>	3.95	3.4	1.75	4.30	3.40	4.20	1.00	1.00	1.00	1.20	1.20	1.20	1.20	1.00	1.00	1.20

LOW Priority: additional resources and mitigation may be needed.	> or =1
MEDIUM Priority: additional resources and mitigation needed.	1.0 - 2.5
HIGH Priority: very significant need for additional resources and mitigation.	2.5 - 3.5
VERY HIGH Priority: urgent need for additional resources and mitigation.	>3.5

1
0.1
1
0.20
1
0.30
1
0.05
1
0.05
1
0.15
1
0.15
1.00

EXB 320 - CSBFD 2010c - San Bernardino County Fire Department (TN 57270) SBCFD - Log Notes from January 1999. Submitted to CEC on 6/22/2010.

[redacted]

WEDNESDAY JANUARY 10, 1990

0730 SHIFT CHANGE
"A" ON DUTY — "C" OFF DUTY
CAPT. G. MCPHEE — CAPT. M. MISSILDINE
ENG. S. MAIN — ENG. M. SYLVIA
COMMENCE STATION ROUTINE

0800 APPARATUS MAINTENANCE SHIFT CHANGE CHECKS
AM 2 hr. & ROAD TEST E-17 OK S-17 OK BC OK V/LS OK

0850 FIRE # 953
NAME: LUZ CORPORATION
HARPER LAKE ROAD
SAN BERNADINO, COUNTY
TYPE: STRUCTURE
LOSS: UNKNOWN (AT LEAST 24 MILLION)
EQUIP & CREW: E-17 MCPHEE & MAIN E.A.F.B. FOAM TRAILER
CRASH TRUCK # 2 MANY UNITS FROM SAN BERDO & C.D.F. – HELENDALE, HINKLEY, VICTORVILLE, APPLE VALLEY, ADCANTO
OVERHEAD: CDF B/C
CAUSE: UNKNOWN
SUMMARY: EXPLOSION OR FIRE IN HEATING UNITS of SOLAR GENERATING PLANT. – E17 WAS ASSIGNED NORTH SIDE of PLANT COOLING LARGE CONDENSING UNIT – LAID PARALLEL LINES TO MONITOR AND PUMPED APPROX. 360,000 GAL WATER – CREW WAS EXPOSED TO RUN-off WATER & AIR BORN CHEMICAL "THERMONALL" (SPELLING MAY BE WRONG) BLANKET EXPOSURE RECORD WILL BE SUMMITED BY C.D.F. – OPERATIONS & SAFETY of CREW 17 WERE HAMPERED BY LACK of COMMUNICATIONS with C.D.F. & SAN BERDO FIRE DEPTS.
FIRE 15 3/4 hr.

0933 E-14-2 GAETA & LILLARD 19 COVER

1551 MEDICAL AID # 985
M.A. 1 hr. NAME: [redacted]
LOCATION: [redacted]
BORON

EXB 321 - CSBFD 2010d - San Bernardino County Fire Department (TN 57271) SBCFD - Activity Log Submitted to CEC on 6/22/2010.

FACILITY ID	FACILITY NAME	FACILITY ADDRESS	FACILITY CITY	DATE OF ACTIVITITY	TYPE OF ACTIVITY	TIME (HOURS)	NOTES
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	5/19/2008	INSPECTION PREP	0.5	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	6/9/2008	INSPECTION PREP	1	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	6/9/2008	ROUTINE INSPECTION	8	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	6/13/2008	INSPECTION FOLLOW UP	2.5	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	6/24/2008	INSPECTION FOLLOW UP	9	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	7/8/2008	INSPECTION FOLLOW UP	0.25	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	9/9/2008	INSPECTION FOLLOW UP	0.66	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	6/12/2009	INSPECTION FOLLOW UP	1	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	7/6/2009	COMPLAINT/RELEASE REPORT	0	NOTIFICATION ONLY
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	12/8/2009	INSPECTION FOLLOW UP	1.4	**24 TOTAL HOURS**
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/24/2003	MEETING RE: RELEASE REPOR	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/24/2005	RELEASE FOLLOW UP	2	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/25/2005	RELEASE FOLLOW UP	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/25/2005	ROUTINE INSPECTION	6.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/26/2005	ENFORCEMENT ACTIVITIES	5.25	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/27/2005	ENFORCEMENT ACTIVITIES	4	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/27/2005	INSPECTION FOLLOW UP	0.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/28/2005	MEETING RE: INSPECTION	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/31/2005	ENFORCEMENT ACTIVITIES	3	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	11/1/2005	ENFORCEMENT ACTIVITIES	0.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	11/7/2005	BUSINESS PLAN REVIEW		
FA0006102	SEGS III-VII	41100 HWY 395	BORON	11/7/2005	INSPECTION FOLLOW UP	3.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	12/19/2005	BUSINESS PLAN REVIEW	4.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/9/2006	COMPLAINT/RELEASE REPORT	0	NOTIFICATION ONLY
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/15/2006	COMPLAINT/RELEASE REPORT	0	NOTIFICATION ONLY
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/16/2006	COMPLAINT/RELEASE REPORT	0	NOTIFICATION ONLY
FA0006102	SEGS III-VII	41100 HWY 395	BORON	3/14/2006	UST PLAN CHECK	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	4/11/2006	UST FILE FOLLOW UP	0.33	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	4/13/2006	UST FILE FOLLOW UP	0.1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	4/13/2006	AST INSTALL	4	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/27/2007	COMPLAINT/RELEASE REPORT	0	NOTIFICATION ONLY
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/27/2007	ENFORCEMENT ACTIVITIES	0.25	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/10/2007	BUSINESS PLAN REVIEW	4	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/12/2007	INSPECTION FOLLOW UP	0.16	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/16/2007	ENFORCEMENT ACTIVITIES	6	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/16/2007	EMERGENCY RESPONSE	12	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/20/2007	ENFORCEMENT ACTIVITIES	1.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	9/14/2007	ENFORCEMENT ACTIVITIES	0.25	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	9/21/2007	BUSINESS PLAN REVIEW	4.25	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/11/2008	INSPECTION FOLLOW UP	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/15/2008	ROUTINE INSPECTION	9	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/16/2008	INSPECTION FOLLOW UP	8	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/22/2008	INSPECTION FOLLOW UP	7	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/29/2008	ENFORCEMENT ACTIVITIES	0.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/4/2008	INSPECTION FOLLOW UP	4	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/26/2008	INSPECTION FOLLOW UP	0.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	4/30/2008	ENFORCEMENT ACTIVITIES	2.9	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/24/2008	INSPECTION FOLLOW UP	1	

FA0006102	SEGS III-VII	41100 HWY 395	BORON	8/28/2008	INSPECTION FOLLOW UP	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	3/20/2009	ENFORCEMENT ACTIVITIES	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	5/5/2009	ENFORCEMENT ACTIVITIES	1.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	5/11/2009	ENFORCEMENT ACTIVITIES	8	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	6/23/2009	ENFORCEMENT ACTIVITIES	4.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	6/24/2009	ENFORCEMENT ACTIVITIES	1.3	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	6/25/2009	ENFORCEMENT ACTIVITIES	4	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	6/26/2009	ENFORCEMENT ACTIVITIES	3	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	6/30/2009	ENFORCEMENT ACTIVITIES	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	8/23/2009	ENFORCEMENT ACTIVITIES	0.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	12/1/2009	ENFORCEMENT ACTIVITIES	1	**128 HOURS TOTAL**
FA0006103	SEGS VII & IX	43880 HARPER LAKE	HINKLEY	5/13/2006	BUSINESS PLAN REVIEW	1.5	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	6/24/2004	AST PLAN CHECK/INSTALL	1.5	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	8/19/2004	UST INSPECTION	2	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	10/12/2004	AST PLAN CHECK/INSTALL	8	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	12/21/2004	UST REMOVAL FOLLOW UP	4.5	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	4/14/2005	UST REMOVAL FOLLOW UP	6.3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	5/12/2005	UST REMOVAL FOLLOW UP	0.16	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	5/17/2005	AST PLAN CHECK/INSTALL	1	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	11/30/2005	UST REMOVAL FOLLOW UP	4.5	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	12/16/2005	ROUTINE INSPECTION	6	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/8/2007	INSPECTION FOLLOW UP	1	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	4/10/2007	MEETING W/ CONSULTANT	0.3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	4/11/2007	MEETING W/ CONSULTANT	0.2	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	4/16/2007	UST REMOVAL FOLLOW UP	6.3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	7/11/2007	BUSINESS PLAN REVIEW	1.5	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	7/12/2007	INSPECTION FOLLOW UP	0.16	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	7/12/2007	BUSINESS PLAN REVIEW	6.3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	10/5/2007	BUSINESS PLAN REVIEW	3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	1/25/2008	INSPECTION FOLLOW UP	2.6	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/11/2008	INSPECTION FOLLOW UP	11.3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/12/2008	ROUTINE INSPECTION	9.6	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/14/2008	ENFORCEMENT ACTIVITIES	0.25	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/15/2008	INSPECTION FOLLOW UP	5.2	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/19/2008	INSPECTION FOLLOW UP	7	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/25/2008	EMERGENCY RESPONSE	8	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	3/19/2008	INSPECTION FOLLOW UP	0.42	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	5/10/2008	UST PLAN CHECK	3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	7/23/2008	UST PAPER WORK REVIEW	2	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	7/29/2008	UST PAPER WORK REVIEW	1	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	3/23/2008	ENFORCEMENT ACTIVITIES	0.5	**105 HOURS TOTAL**
FA0011642	SOLAR TWO	37100 SANTA FE	DAGGETT				

EXB 322 - CSBFD 2010e - San Bernardino County Fire Department (TN 57273) SBCFD - Plan Reviews at Solar Plants. Submitted to CEC on 6/22/2010.

Below is the only Planning and Engineering information found on any of the addresses you provided for planning and engineering:

FA0006101 – Sunray Energy – 35100 Santa Fe – Daggett
No Record

FA0006102 – SEGS III-VII – 41100 Hwy 395 – Boron
Waterline plan reviewed in 11/07, file 26688
Alarm plan approved 8/11/09, file 30483
Alarm plan currently in plan check, file 31003 (@ Victorville office)
Alarm Notification plan currently in plan check, file 31004 (@ Victorville office)

FA0006103 – SEGS VII & IX – 43880 Harper Lake – Hinkley
Aboveground Tank approved 5/5/09, file 29308

FA0011642 – Solar Two – 37100 Santa Fe – Daggett
No Record

FA0002037 – Coolwater Generating Station - 37000 Santa Fe – Daggett
No Record

FA0011642 – Solar Two Project – 37110 E Santa Fe – G=Daggett
No Record

EXB 323 - CSBFD 2010f - San Bernardino County Fire Department (TN 57285) SBCFD - Response Log 1998 to 2009. Submitted to CEC on 6/22/2010.

ccc/bdc number	date	time	remarks
98010253	02/18/1998	1041	MISC 040 , HARPER LAKE RD AT THE LUZ SOLAR PLANT.
98012783	03/01/1998	0931	TEXT 031 FX LEG / MEET RP AT POWER PLANT
98032684	06/09/1998	1336	TEXT 053 UNKN TYPE ALARM AT THE POWER PLANT / PER LLU SECURITY
98060460	10/19/1998	0844	MISC 070 (M4203) E125 , FIRE AT LUZ SOLAR PLANT//ADVISED OF PERMIT REQUIREMENTS
98063549	11/04/1998	0703	TEXT 050 SOLAR PLANT // LARGE FLAMES // LOTS OF BLACK SMOKE
98064220	11/07/1998	1341	DISP 061 (H0664) E40 AMR31 , AT THE POWER PLANT....SOMEONE WILL DIRECT
98064225	11/07/1998	1408	TEXT 090 BACK INJ///LZ AT THE POWER PLANT AT THE HELOSPOT....CONTACT BE48 ON CALCO RD...TB 4565 F7
99011628	02/26/1999	1812	CHGLOC 033 SOLAR PLANT/ZZZ TO 35100 SANTE FE
99019822	04/07/1999	2221	TEXT 031 UNIV POWER PLANT - POSS HEART -
99025686	05/07/1999	1208	TEXT 041 ELECTRICAL FIRE AT THE MIDDLE POWER PLANT
99025843	05/08/1999	0620	TEXT 054 MALE FELL BACKWARDS/HIT HEAD ON RAILING/AT POWER PLANT
99030487	05/31/1999	1430	MISC 044 , TAKE THE Y NORTH AWAY FROM THE POWER PLANT
99038079	07/06/1999	2206	MISC 068 (10546) , S/O ADVISES ARCING LINES BEHIND POWER PLANT AT 810 3RD ST.
99051027	09/15/1999	0604	ADVISD 083 PASSING A KIDNEY STONE/ MOJAVE SIPHON POWER PLANT 16001 HWY 173/ DSRT COM MADVISED
13824	03/12/2000	1724	TEXT 029 THE POWER PLANT/ GEN FIRE ALM
25326	05/15/2000	1103	TEXT 046 FIRE AT THE KRAMER SOLAR PLANT, E89 RESPONDING
25326	05/15/2000	1237	MISC 095 (H2744) , DAVE RIB, AN EMPLOYEE REP SOLAR PLANT GAVE THE FOLLOWINGINFORMATION ON THE INCIDENT.
25326	05/15/2000	1245	MISC 377 (H2744) , FIRE WAS IN A PUMP LOCATED IN SEGS (SOLAR ELECTRICAL GENERATINGSYSTEMS) "FIVE". THERE ARE 5 SEGS IN THIS SOLAR PLANT. FIRE WAS CAUSED BY AFLASH AND DOLLAR L PER DAVE RIB.. ANYMEDIA REQ FOR MORE INFO, THEY CAN CONTACT MR RIB AT THE PLANT AT760-762-5562 EXT 246...FIRE WAS CONTAINED BY ON SITE FIRE APPARATUS. NO HAZMAT INVOLVED.
31488	06/16/2000	1745	MOVEOS 023 (F1435) E53 SOLARION IC
50537	09/15/2000	1015	TEXT 043 BUS-SOLAR INK/MANUAL PULL ON FIRE COMMAND 2
59683	11/01/2000	0017	TEXT 021 POWER PLANT EXPLOSION
1001805	01/09/2001	0342	MISC 095 (M4203) E31 , CORNER OF BUSH AND O ST....2ND REPORT ADVISING POWER POLE ONFIRE NOT POWER PLANT
1012121	02/26/2001	0147	TEXT 075 SOLAR PLANT - MALE 36/ AMPUTATED FINGERS/ SUBJ BEING BROUGHT TO MAIN OFFICE
1023952	04/25/2001	1438	TEXT 046 AT SOLARIS HOLDING//ZONE 5 WATERFLOW 2ND FLOOR
1029392	05/21/2001	1735	MOVEOS 025 (H2744) AC4101 "SOLAR IC"
1029392	05/21/2001	2120	MOVEOS 022 (A7909) BC140 SOLAR IC
1029392	05/21/2001	2127	MISC 063 (A7909) , PER NOAH AT DES COMM BC140 HAS NOW ASSUMED "SOLAR IC"
1029392	05/21/2001	2319	MOVEOS 022 (C0662) C4100 SOLAR IC
1038564	07/01/2001	1708	TEXT 053 GEN FIRE AT THE POWER PLANT TB 647-B1 CROSS TAYLOR ST
1042388	07/17/2001	1029	TEXT 038 SOLAR PLANT IN DAGGETT..POSS STRUCTURE
1045426	07/31/2001	1436	TEXT 064 SOLAR LINK INTL...ME138 ON FIRE COMMAND 2 ..REQ E74..MANUAL PULL
1046896	08/07/2001	1334	TEXT 073 GENERAL FIRE ALARM AT THE POWER PLANT / ALSO SHOWS ADRESS OF 11040 TAYLOR
1048135	08/13/2001	0643	TEXT 052 COOL WATER SOLAR PLANT- FALL VICTIM FROM 40 FT TOWER
1048141	08/13/2001	0709	TEXT 048 FALL VICT 3762 D1//SOLAR PLANT AIR OPS ON CALCOR
1064022	10/24/2001	0545	TEXT 049 TWO LARGE BLAST NEAR THE POWER PLANT, NO ADD INFO
1068227	11/12/2001	2025	TEXT 101 PASSERBY SAW A FLASH AT THE POWER PLANT - POWER WENT OFF MOMENTAIRLY THENCAME BACK ON - SEES NO FIRE
2007551	02/05/2002	1658	TEXT 044 POWER PLANT X-ANDERSON /GENERAL FIRE ALARM /
2012325	02/26/2002	0610	TEXT 028 SOUTHWEST END OF POWER PLANT
2013243	03/02/2002	0743	TEXT 040 SOLAR PLANT FIRE, LARGE OUTSIDE OIL FIRE
2024007	04/21/2002	1042	TEXT 105 NEAR SOLAR PLANT...POSS CROSS OF HARPER LAKE RD X ROY...OUT OF CONTROL BURNJOB....RP PHONE # 760-7625424
2036894	06/19/2002	0014	MISC 072 (B2816) , LL ON CALL FOR WATER PAGED TO CALL THE DANA AT THE POWER PLANT
2037295	06/20/2002	1733	TEXT 044 1/2 E OF SOLAR PLANT...LARGE COLUMN OF SMOKE
2041718	07/08/2002	1658	TEXT 064 POWER PLANT..GENERAL FIRE....PERSON TO MEET YOU AT UNIVERSITY CT
2041887	07/09/2002	1334	TEXT 059 POWER PLANT...GENERAL FIRE ALARM MADE ACCESS OFF UNIVERSITY
2044039	07/18/2002	1928	TEXT 043 AT THE POWER PLANT, GEN FIRE ALARM NO RESET
2052135	08/24/2002	2200	NEWLOC 026 (F1435) RED SOLAR INCIDENT
2052135	08/24/2002	2202	MOVEOS 021 (F1435) E125 SOLAR IC
2052135	08/24/2002	2220	MOVEOS 022 (F1435) BC149 SOLAR IC

2059978 09/28/2002 2328 TEXT 085 NEAR AZ 95 AT COURTRIGHT, NEAR THE SOUTH POINT POWER PLANT, REQ AMBULANCE.TB 352 D10
2075159 12/09/2002 1118 MISC 091 (A7910) ME62 , EDISON POWER PLANT NOTHING SHOWING DID HAVE AN EXPLOSION WITHA POWER OUTAGE
3014343 03/04/2003 1439 TEXT 018 AT THE POWER PLANT
3022802 04/12/2003 1559 TEXT 085 NEAR LG POWER PLANT, TOWARDS END OF ESCONDIDO, NEAR LARGE BUSH, NUMEROUSDRUMS DUMPED
3029305 05/12/2003 2012 TEXT 118 E911 TIME: 201002 SEVERAL EXPLOSIONS HEARD AT EDISON SUB POWER PLANT ACROSSFROM THIS ADDRESS :ELECTRICITY OUT IN AREA
3044743 07/15/2003 1517 TEXT 026 POWER PLANT SMOKE DETECTOR
3073855 11/14/2003 1302 TEXT 086 POWER PLANT-GENERAL FIRE ALARM-POSS SMOKE FROM A WELDER OR DUST IN THE AREA-RP UNSURE
3078657 12/05/2003 1422 TEXT 038 POWER PLANT..GENERAL ALARM..X PROSPECT
3084807 12/29/2003 0812 TEXT 061 E911 TIME: 081017 RP SEE SMOKE BEHIND THE FONTANA POWER PLANT
3085269 12/31/2003 0947 TEXT 122 PROSPECT BTWN ANDERSON AND THE FIRST DRIVEWAY ON THE NORTH SIDE OF THESTREET \\ WATER LEAKING INTO THE POWER PLANT TUNNEL
4015231 03/08/2004 1900 TEXT 070 LARGE FLASH OF LIGHT SEEN FROM THE POWER PLANT / POSS TRANSFORMER FIRE
4037936 06/17/2004 1131 TEXT 089 E911 TIME: 113004 AT THE CONSTRUCTION AREA OF THE POWER PLANT, 40 Y/O MAN,POSSIBLE HEART
4045870 07/20/2004 1017 TEXT 060 E911 TIME: 101550 40Y FEM,FALL ARM INJ/EMPLOYEE, POWER PLANT
4060317 09/20/2004 1931 TEXT 091 NEAR POWER PLANT, MC T/C 1 MALE SUBJ, REQ'G AMB, BETWEEN NORTH DYKE ENTRANCEAND CORTWRIGHT
4067327 10/20/2004 2218 MISC 040 (B5541) E4 , STEAM FROM POWER PLANT - MI
4071679 11/09/2004 0725 TEXT 126 E911 TIME: 072133 ILL 51 YOM, HI BP, AT THE POWER PLANT. MEET RP IN A SMALLWHT P/U AT THE CORNER OF SAN BERNARDINO & MTN VIEW
4072656 11/13/2004 2126 MISC 078 (O0407) E127 , ALL THE POWER IS OFF ST THE POWER PLANT - BACK UP LIGHTS AREON
4075684 11/27/2004 0920 MISC 048 (A7909) E40 , STAGE AT POWER PLANT AND ESCONDIDO
4075684 11/27/2004 0924 MISC 069 (A7909) E40 , NEED A/S ME301 GC CALCOR LZ ON ESONDIDO, BY POWER PLANT
5007686 02/01/2005 0923 TEXT 034 POWER PLANT GENERAL BLG FIRE ALARM
5041246 06/25/2005 1324 TEXT 164 ON 58 10 MILES EAST OF KRAMER JUNCTION/RP WILL MEET ON RED HONDA DIRT BIKENEAR SOLAR PANELS/50 YOM OFF RD TC/DISORIENTED/INJURED RIGHT WRISTS ANDSHOULDER/HIT HEA
5047481 07/18/2005 0841 ADVISD 090 POWER PLANT UNDER CONTRUCTION/POSS HEART, X OF THE SANTA ANA WASH, CALLGIVEN TO CITY FIRE
5047482 07/18/2005 0845 MISC 021 (B5541) , POWER PLANT
5047854 07/19/2005 1554 CHGLOC 051 KECK SOLAR PLANT, DAGGETT TO 35100 SANTA FE ST ,DAG
5047854 07/19/2005 1604 MISC 168 (H2744) , | VEG FIRE/LIGHTNING STRIKES- DAGGETT AREA/OLD SEGS 1 SOLAR PLANT-70 PLUS ACRES AT THIS TIME AT THE RIVER BOTTOM.HAS BEEN SENT TO THEFOLLOWING PAGER(S):9911
5050516 07/30/2005 0347 TEXT 037 EXPLOSION FROM A POWER PLANT BUILDING
5054917 08/17/2005 1029 TEXT 095 AT THE POWER PLANT, FEMALE WAS FOUND ON PROPERTY, ALOC, SHE WALKED TO LOCFROM HER DISABLED VEH
5069994 10/21/2005 1759 TEXT 143 CHECK AT THE SOLAR PLANT- REPORTS OF CLOUD ABOVE IT- PLANT STATES ITS HEATTRANSFER FLUID- PASSERBYS ARE HAVING ISSUES- IRRITATING TO THE EYES-
5073831 11/08/2005 0232 MISC 042 (F1435) DES1 , ACROSS FROM THE POWER PLANT
5085786 12/29/2005 1751 TEXT 136 FLAMES FROM VEG ON AN OLD RANCH 8 MILES NORTH OF 58 ON HARPER LAKE RD/ RPCALLING FROM THE SOLAR PLANT AND IS VISIBLE FROM THIS LOCATION
6002347 01/09/2006 1807 TEXT 118 SOLAR PLANT, NOTIFICATION ONLY 75 GAL MONSANO VP1 HEAT TXFER FLUID SPILL,CLEAN UP CREW OS, X282 ALSO CELL #7609649862
6005946 01/25/2006 1443 TEXT 082 GENERATOR ACTIVATION AT BLDG JUST OUTSIDE POWER PLANT. X-ANDERSON.. DID NOTVERIFY
6008209 02/04/2006 1627 TEXT 094 E911 TIME: 162501 *STAND BY* SO ENRT // RIVERSIDE CANAL POWER PLANT / 5150MALE COMP OF PAIN /
TITLE:CAD Narrative [CRLF]CAD Inc #: 06008209 Sheriff Inc#: ALS MEDICAL AID E911 TIME: 162501 *STAND BY* SO ENRT // RIVERSIDE CANAL POWER PLANT / 5150 MALE COMP OF PAI
6004975 02/04/2006 0001 [CRLF]At 1627 hours on Saturday February 4, 2006 we were dispatched to an EMS call. Two units were assigned to this incident. Two personnel responded. We arrived on scene at 1633 hours and cleared at 1653 hours. Th
6010688 02/15/2006 1158 TEXT 069 RP ADV CHEM SPRAY OVER US 395 FROM SOLAR PLANT JNO KRAMER JCT, CHP ER
6010688 02/15/2006 1206 MISC 141 (F1435) , RP HAS LEFT THE AREA, GOING TOWARDS ADELANTO, THIS WAS A GAS, NOTA LIQUID, WAS NEAR THE SOLAR PLANT, RP CELL PHONE IS 949-212-2548
6006421 02/15/2006 0000 TITLE:CAD Narrative [CRLF]CAD Inc #: 06010688 Sheriff Inc#: HAZARDOUS MATERIALS RP ADV CHEM SPRAY OVER US 395 FROM SOLAR PLANT JNO KRAMER JCT, CHP ER[CRLF]
6011266 02/18/2006 0231 TEXT 029 SMOKE COMING FROM POWER PLANT
6022083 04/06/2006 1440 MISC 066 (H2730) , RED BC STS POSSIBLY NEAR THE POWER PLANT NEAR RED BORDER
6034449 05/30/2006 1136 TEXT 033 GEN FIRE ALARM AT THE POWER PLANT
6034449 05/30/2006 1146 MISC 044 (M4694) MS251 , POWER PLANT NO9THING SHOWING
6038705 06/17/2006 0956 TEXT 029 VEG FIRE NEAR THE POWER PLANT
6075556 11/18/2006 0930 MISC 163 (C5205) , *** PER RO: HOLE IS ON HELENDALE BTWN STATE 58 AND SILVER LAKES,RP WAS CALLING FROM THE SOLAR POWER PLANT, MAKE CONTACT W/ANYONE AT CB# IFANY QUESTIONS
6075556 11/18/2006 0930 MISC 163 (C5205) , *** PER RO: HOLE IS ON HELENDALE BTWN STATE 58 AND SILVER LAKES,RP WAS CALLING FROM THE SOLAR POWER PLANT, MAKE CONTACT W/ANYONE AT CB# IFANY QUESTIONS
7017023 03/10/2007 2026 ADVISD 203 REF CAD #014, FEM SUBJ FROM INC WAS W/ 2 MALE SUBJ ALSO LOST SOMEWHERE ONTHE BASE PAST THE SOLAR PANELS IN A VAN OR MOTORHOME W/2 FLATS, PER SBSO RP#714421664
7012220 03/22/2007 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 07019896 Sheriff Inc#: FALSE ALARM FONTANA TRUCK STOP: AIR DUCT SMOKE DET/ PREM 909-829-6671SOLAR SYSTEM 455 8002280580[
7027251 04/24/2007 1245 TEXT 024 FIRE ALARM - POWER PLANT
7055255 08/19/2007 1020 MISC 069 S4 , MET WITH RP FROM SOLAR PLANT, DIRECTING FURTHER TO POSS LOCATION
7062835 09/19/2007 2310 TEXT 039 IN POWER PLANT / RP WILL MEET AND GUIDE

7066984 10/08/2007 1900 MISC 053 (B8165) BP125 , IN AREA - MAKING ACESS TO SOLAR PLANT
7070089 10/22/2007 0528 ONSCNE 062 (B8165) C-3600 , BEST ACCESS GRASS VALLEY RD TO POWER PLANT RD
7084685 12/22/2007 1147 TEXT 020 NEAR THE POWER PLANT
TITLE:CAD Narrative [CRLF]CAD Inc #: 07084685 Sheriff Inc#: TC W/NO INJURIES NEAR THE POWER PLANTRIVER MEDICAL RHONDA 7025214818[CRLF][CRLF]TITLE:New
7052032 12/22/2007 0000 Saturday December 22, 2007 we were dispatched to a vehicle accident with no injuries. Four units were assigned to this incident. We arrived on scene at 1159 hours and cleared at 1215 hours. The incident occurred at On F
8012798 02/20/2008 0931 ADVISD 155 STATES HE IS LOOKING ACROSS THE RIVER AND STATES THERE IS A VEG FIRE NEXT TOTHE POWER PLANT. ADV MOJAVE VLY WHO STATES THEY HAVE SEVERAL BURNS IN THE AREA
8020933 03/25/2008 2227 TEXT 042 ELECTRICAL POWER PLANT / RP # 909-208-6521
8012751 03/25/2008 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 08020933 Sheriff Inc#: UNABLE TO LOCATE ELECTRICAL POWER PLANT / RP # 909-208-6521SBSO[CRLF]
8031076 05/08/2008 1407 TEXT 041 VEH INTO BLDG, POWER PLANT, BLUE CORVETTE
8018734 05/08/2008 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 08031076 Sheriff Inc#: TC W/EXTRICATION NEEDED VEH INTO BLDG, POWER PLANT, BLUE CORVETTECHP TXFER 9098253414[CRLF]
8038613 06/07/2008 1641 MISC 068 (D8247) , PER MOHAVE VALLEY THIS IS GOING TO BE NEAR THE POWER PLANT
8038613 06/07/2008 1653 MISC 138 (D8247) , PER MOHAVE VALLEY FIRE GAVE UPDATED ADDRESS TO FIRE / THIS ISGOING TO BE NEAR THE POWER PLANT AT 3775 COURTWRIGHT RD X VIEW LN.
8042653 06/23/2008 1339 MISC 121 (10546) , S.O UNIT ADVISED ON SCENE NORTH END / OF EDISON POWER PLANT - SEESA PROBLEM NOT ABLE TO CONFIRM FIRE OR SMOKE/
8044143 06/29/2008 1857 TEXT 063 35MALE / SOLAR POWER PLANT - 395 2 MILE N/O JUNCTION / EXT. 700
8044143 06/29/2008 1857 TEXT 063 35MALE / SOLAR POWER PLANT - 395 2 MILE N/O JUNCTION / EXT. 700
8044143 06/29/2008 1910 MISC 047 (B6449) , SOLAR PLANT WILL MEET AT 58/HELENDALE
8046564 07/08/2008 1641 TEXT 050 TWO FIRES BURNING BY THE SOLAR PLANTS/ CHP IN AREA
8046564 07/08/2008 1659 MISC 044 (B6449) BE4 , IN AREA OF THE SOLAR PLANT UTL
8027875 07/08/2008 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 08046564 Sheriff Inc#: UNABLE TO LOCATE TWO FIRES BURNING BY THE SOLAR PLANTS/ CHP IN AREACHP[CRLF]
8067935 10/05/2008 1850 TEXT 033 POWER PLANT FIRE ALARM ACTIVATION
8067935 10/05/2008 1856 MISC 042 T251 , 2 STORY POWER PLANT NOTHING SHOWING
8074656 11/02/2008 1457 TEXT 127 TRANSFORMER FROM EDISON POWER PLANT EXPLODED, TRAFFIC LIGHTS IN THE AREA NOWOUT, CHP ADV WILL NOTIFY EDISON, ALSO REQ CO ROADS
TITLE:CAD Narrative [CRLF]CAD Inc #: 08074656 Sheriff Inc#: ELEC INCIDENT - OUTSIDE TRANSFORMER FROM EDISON POWER PLANT EXPLODED, TRAFFIC LIGHTS IN THE AREA NOW OU
8044802 11/02/2008 0001 REQ CO ROADSCHP[CRLF][CRLF]TITLE:ME10 [CRLF]At 1457 hours on Sunday November 2, 2008 we were dispatched to an electrical wiring/equipment problem. One unit was assigned to this incident. We arrive
8085249 12/17/2008 1720 TEXT 021 SOLAR PLANT, 64YM SOB
TITLE:CAD Narrative [CRLF]VERIZON WIRELESS 800 451 5242 Master Incident Number:09-011167 ON WIRELESS 800 451 BDC 09005650 Primary Jurisdiction Inc.#: BDC 09005650 Dispos
9005650 02/07/2009 0001 # 02/07/2009 18:56:29B8165 W/O SOLAR PLANT OFF RDWY IN DESERT 02/07/2009 18:53:54SYS WPH2 LAT:34.99401900 LON:-117.567379 METERS:57 %:095 02/07/2009 18:56:34B81
TITLE:CAD Narrative [CRLF]JULIE Master Incident Number:09-023604 BDC 09011634 Primary Jurisdiction Inc.#: BDC 09011634 Disposition:03/20/2009 15:05:58TS
9011634 03/20/2009 0001 15:05:52S3402 LARGE COLUMN OF BLACK SMOKE, POSS NEAR THE SOLAR PLANT 03/20/2009 15:05:58S3402 604 03/20/2009 15:06:16TSSIntRMS: Confire SunproExternal Case Number 'BD
TITLE:CAD Narrative [CRLF]CAD Master Incident Number:09-032897 BDC 09016020 Primary Jurisdiction Inc.#: COL 09001508 Disposition:04/20/2009 15:48:06TSS Alarm Permit #
9016020 04/20/2009 0001 BRUSH FIRE POWER PLANTS CUTTING BRUSH 04/20/2009 15:48:52B6449 1 ACRE 04/20/2009 15:49:20B6449 POWER PLANT WAS CUTTING BRUSH AND STARTED THE FIRE ABOUT 1 AC
TITLE:CAD Narrative [CRLF]VVSO Master Incident Number:09-046123 BDC 09022469 Primary Jurisdiction Inc.#: BDC 09022469 Disposition:06/02/2009 23:50:49TS
9022469 06/02/2009 0001 23:50:47H0664 S.O. ER ...REPT BONFIRE IN THE AREA OF THE POWER PLANT 06/02/2009 23:51:15TSSIntRMS: Confire SunproExternal Case Number 'BDC 09022469' added for San Bernardino County. 0
TITLE:CAD Narrative [CRLF]CAD Master Incident Number:09-086249 BDC 09041365 Primary Jurisdiction Inc.#: BDC 09041365 Disposition:09/15/2009 05:33:10TSS Alarm Permit #
9041365 09/15/2009 0000 ATTHE ENDOF HAR;PER DY LAKE BY THE SOLAR PLANT GOINFG NORTH OF HY 58 09/15/2009 05:32:59H0664 249 09/15/2009 05:33:48TSSIntRMS: Confire SunproExternal Case Number 'BDC 090413

EXB 324 - CSBFD 2010g - San Bernardino County Fire Department (TN 57287) SBCFD - Haz Mat Inspections. Submitted to CEC on 6/22/2010.

FACILITY ID	FACILITY NAME	FACILITY ADDRESS	FACILITY CITY	DATE OF ACTIVITITY	TYPE OF ACTIVITY	TIME (HOURS)	NOTES
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	5/19/2008	INSPECTION PREP	0.5	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	6/9/2008	INSPECTION PREP	1	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	6/9/2008	ROUTINE INSPECTION	8	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	6/13/2008	INSPECTION FOLLOW UP	2.5	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	6/24/2008	INSPECTION FOLLOW UP	9	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	7/8/2008	INSPECTION FOLLOW UP	0.25	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	9/9/2008	INSPECTION FOLLOW UP	0.66	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	6/12/2009	INSPECTION FOLLOW UP	1	
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	7/6/2009	COMPLAINT/RELEASE REPORT	0	NOTIFICATION ONLY
FA0006101	SUNRAY ENERGY INC	35100 SANTA FE ST	DAGGETT	12/8/2009	INSPECTION FOLLOW UP	1.4	**24 TOTAL HOURS**
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/24/2003	MEETING RE: RELEASE REPOR	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/24/2005	RELEASE FOLLOW UP	2	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/25/2005	RELEASE FOLLOW UP	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/25/2005	ROUTINE INSPECTION	6.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/26/2005	ENFORCEMENT ACTIVITIES	5.25	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/27/2005	ENFORCEMENT ACTIVITIES	4	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/27/2005	INSPECTION FOLLOW UP	0.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/28/2005	MEETING RE: INSPECTION	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	10/31/2005	ENFORCEMENT ACTIVITIES	3	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	11/1/2005	ENFORCEMENT ACTIVITIES	0.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	11/7/2005	BUSINESS PLAN REVIEW		
FA0006102	SEGS III-VII	41100 HWY 395	BORON	11/7/2005	INSPECTION FOLLOW UP	3.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	12/19/2005	BUSINESS PLAN REVIEW	4.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/9/2006	COMPLAINT/RELEASE REPORT	0	NOTIFICATION ONLY
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/15/2006	COMPLAINT/RELEASE REPORT	0	NOTIFICATION ONLY
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/16/2006	COMPLAINT/RELEASE REPORT	0	NOTIFICATION ONLY
FA0006102	SEGS III-VII	41100 HWY 395	BORON	3/14/2006	UST PLAN CHECK	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	4/11/2006	UST FILE FOLLOW UP	0.33	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	4/13/2006	UST FILE FOLLOW UP	0.1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	4/13/2006	AST INSTALL	4	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/27/2007	COMPLAINT/RELEASE REPORT	0	NOTIFICATION ONLY
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/27/2007	ENFORCEMENT ACTIVITIES	0.25	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/10/2007	BUSINESS PLAN REVIEW	4	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/12/2007	INSPECTION FOLLOW UP	0.16	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/16/2007	ENFORCEMENT ACTIVITIES	6	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/16/2007	EMERGENCY RESPONSE	12	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/20/2007	ENFORCEMENT ACTIVITIES	1.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	9/14/2007	ENFORCEMENT ACTIVITIES	0.25	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	9/21/2007	BUSINESS PLAN REVIEW	4.25	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/11/2008	INSPECTION FOLLOW UP	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/15/2008	ROUTINE INSPECTION	9	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/16/2008	INSPECTION FOLLOW UP	8	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/22/2008	INSPECTION FOLLOW UP	7	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	1/29/2008	ENFORCEMENT ACTIVITIES	0.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/4/2008	INSPECTION FOLLOW UP	4	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	2/26/2008	INSPECTION FOLLOW UP	0.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	4/30/2008	ENFORCEMENT ACTIVITIES	2.9	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	7/24/2008	INSPECTION FOLLOW UP	1	

FA0006102	SEGS III-VII	41100 HWY 395	BORON	8/28/2008	INSPECTION FOLLOW UP	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	3/20/2009	ENFORCEMENT ACTIVITIES	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	5/5/2009	ENFORCEMENT ACTIVITIES	1.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	5/11/2009	ENFORCEMENT ACTIVITIES	8	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	6/23/2009	ENFORCEMENT ACTIVITIES	4.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	6/24/2009	ENFORCEMENT ACTIVITIES	1.3	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	6/25/2009	ENFORCEMENT ACTIVITIES	4	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	6/26/2009	ENFORCEMENT ACTIVITIES	3	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	6/30/2009	ENFORCEMENT ACTIVITIES	1	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	8/23/2009	ENFORCEMENT ACTIVITIES	0.5	
FA0006102	SEGS III-VII	41100 HWY 395	BORON	12/1/2009	ENFORCEMENT ACTIVITIES	1	**128 HOURS TOTAL**
FA0006103	SEGS VII & IX	43880 HARPER LAKE	HINKLEY	5/13/2006	BUSINESS PLAN REVIEW	1.5	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	6/24/2004	AST PLAN CHECK/INSTALL	1.5	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	8/19/2004	UST INSPECTION	2	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	10/12/2004	AST PLAN CHECK/INSTALL	8	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	12/21/2004	UST REMOVAL FOLLOW UP	4.5	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	4/14/2005	UST REMOVAL FOLLOW UP	6.3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	5/12/2005	UST REMOVAL FOLLOW UP	0.16	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	5/17/2005	AST PLAN CHECK/INSTALL	1	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	11/30/2005	UST REMOVAL FOLLOW UP	4.5	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	12/16/2005	ROUTINE INSPECTION	6	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/8/2007	INSPECTION FOLLOW UP	1	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	4/10/2007	MEETING W/ CONSULTANT	0.3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	4/11/2007	MEETING W/ CONSULTANT	0.2	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	4/16/2007	UST REMOVAL FOLLOW UP	6.3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	7/11/2007	BUSINESS PLAN REVIEW	1.5	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	7/12/2007	INSPECTION FOLLOW UP	0.16	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	7/12/2007	BUSINESS PLAN REVIEW	6.3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	10/5/2007	BUSINESS PLAN REVIEW	3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	1/25/2008	INSPECTION FOLLOW UP	2.6	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/11/2008	INSPECTION FOLLOW UP	11.3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/12/2008	ROUTINE INSPECTION	9.6	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/14/2008	ENFORCEMENT ACTIVITIES	0.25	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/15/2008	INSPECTION FOLLOW UP	5.2	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/19/2008	INSPECTION FOLLOW UP	7	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	2/25/2008	EMERGENCY RESPONSE	8	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	3/19/2008	INSPECTION FOLLOW UP	0.42	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	5/10/2008	UST PLAN CHECK	3	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	7/23/2008	UST PAPER WORK REVIEW	2	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	7/29/2008	UST PAPER WORK REVIEW	1	
FA0006103	SEGS VII & IX	43800 HARPER LAKE	HINKLEY	3/23/2008	ENFORCEMENT ACTIVITIES	0.5	**105 HOURS TOTAL**
FA0011642	SOLAR TWO	37100 SANTA FE	DAGGETT				

EXB 325 - CSBFD 2010h - San Bernardino County Fire Department (TN 57288) EMS Response From SBCFD. Submitted to CEC on 6/22/2010.

ccc/bdc number	date	time	remarks
98010253	02/18/1998	1041	MISC 040 , HARPER LAKE RD AT THE LUZ SOLAR PLANT.
98012783	03/01/1998	0931	TEXT 031 FX LEG / MEET RP AT POWER PLANT
98032684	06/09/1998	1336	TEXT 053 UNKN TYPE ALARM AT THE POWER PLANT / PER LLU SECURITY
98060460	10/19/1998	0844	MISC 070 (M4203) E125 , FIRE AT LUZ SOLAR PLANT//ADVISED OF PERMIT REQUIREMENTS
98063549	11/04/1998	0703	TEXT 050 SOLAR PLANT // LARGE FLAMES // LOTS OF BLACK SMOKE
98064220	11/07/1998	1341	DISP 061 (H0664) E40 AMR31 , AT THE POWER PLANT....SOMEONE WILL DIRECT
98064225	11/07/1998	1408	TEXT 090 BACK INJ///LZ AT THE POWER PLANT AT THE HELOSPOT....CONTACT BE48 ON CALCO RD...TB 4565 F7
99011628	02/26/1999	1812	CHGLOC 033 SOLAR PLANT/ZZZ TO 35100 SANTE FE
99019822	04/07/1999	2221	TEXT 031 UNIV POWER PLANT - POSS HEART -
99025686	05/07/1999	1208	TEXT 041 ELECTRICAL FIRE AT THE MIDDLE POWER PLANT
99025843	05/08/1999	0620	TEXT 054 MALE FELL BACKWARDS/HIT HEAD ON RAILING/AT POWER PLANT
99030487	05/31/1999	1430	MISC 044 , TAKE THE Y NORTH AWAY FROM THE POWER PLANT
99038079	07/06/1999	2206	MISC 068 (10546) , S/O ADVISES ARCING LINES BEHIND POWER PLANT AT 810 3RD ST.
99051027	09/15/1999	0604	ADVISD 083 PASSING A KIDNEY STONE/ MOJAVE SIPHON POWER PLANT 16001 HWY 173/ DSRT COM MADVISED
13824	03/12/2000	1724	TEXT 029 THE POWER PLANT/ GEN FIRE ALM
25326	05/15/2000	1103	TEXT 046 FIRE AT THE KRAMER SOLAR PLANT, E89 RESPONDING
25326	05/15/2000	1237	MISC 095 (H2744) , DAVE RIB, AN EMPLOYEE REP SOLAR PLANT GAVE THE FOLLOWINGINFORMATION ON THE INCIDENT.
			MISC 377 (H2744) , FIRE WAS IN A PUMP LOCATED IN SEGS (SOLAR ELECTRICAL GENERATINGSYSTEMS) "FIVE". THERE ARE 5 SEGS IN THIS SOLAR PLANT. FIRE WAS CAUSED BY AFLASH AND DOLLA
25326	05/15/2000	1245	$10,000 PER DAVE RIB.. ANYMEDIA REQ FOR MORE INFO, THEY CAN CONTACT MR RIB AT THE PLANT AT760-762-5562 EXT 246...FIRE WAS CONTAINED BY ON SITE FIRE APPARATUS. NO HAZMAT INVC
31488	06/16/2000	1745	MOVEOS 023 (F1435) E53 SOLARION IC
50537	09/15/2000	1015	TEXT 043 BUS-SOLAR INK/MANUAL PULL ON FIRE COMMAND 2
59683	11/01/2000	0017	TEXT 021 POWER PLANT EXPLOSION
1001805	01/09/2001	0342	MISC 095 (M4203) E31 , CORNER OF BUSH AND O ST....2ND REPORT ADVISING POWER POLE ONFIRE NOT POWER PLANT
1012121	02/26/2001	0147	TEXT 075 SOLAR PLANT - MALE 36/ AMPUTATED FINGERS/ SUBJ BEING BROUGHT TO MAIN OFFICE
1023952	04/25/2001	1438	TEXT 046 AT SOLARIS HOLDING//ZONE 5 WATERFLOW 2ND FLOOR
1029392	05/21/2001	1735	MOVEOS 025 (H2744) AC4101 "SOLAR IC"
1029392	05/21/2001	2120	MOVEOS 022 (A7909) BC140 SOLAR IC
1029392	05/21/2001	2127	MISC 063 (A7909) , PER NOAH AT DES COMM BC140 HAS NOW ASSUMED "SOLAR IC"
1029392	05/21/2001	2319	MOVEOS 022 (C0662) C4100 SOLAR IC
1038564	07/01/2001	1708	TEXT 053 GEN FIRE AT THE POWER PLANT TB 647-B1 CROSS TAYLOR ST
1042388	07/17/2001	1029	TEXT 038 SOLAR PLANT IN DAGGETT..POSS STRUCTURE
1045426	07/31/2001	1436	TEXT 064 SOLAR LINK INTL...ME138 ON FIRE COMMAND 2 ..REQ E74..MANUAL PULL
1046896	08/07/2001	1334	TEXT 073 GENERAL FIRE ALARM AT THE POWER PLANT / ALSO SHOWS ADRESS OF 11040 TAYLOR
1048135	08/13/2001	0643	TEXT 052 COOL WATER SOLAR PLANT- FALL VICTIM FROM 40 FT TOWER
1048141	08/13/2001	0709	TEXT 048 FALL VICT 3762 D1//SOLAR PLANT AIR OPS ON CALCOR
1064022	10/24/2001	0545	TEXT 049 TWO LARGE BLAST NEAR THE POWER PLANT, NO ADD INFO
1068227	11/12/2001	2025	TEXT 101 PASSERBY SAW A FLASH AT THE POWER PLANT - POWER WENT OFF MOMENTAIRLY THENCAME BACK ON - SEES NO FIRE
2007551	02/05/2002	1658	TEXT 044 POWER PLANT X-ANDERSON /GENERAL FIRE ALARM /
2012325	02/26/2002	0610	TEXT 028 SOUTHWEST END OF POWER PLANT
2013243	03/02/2002	0743	TEXT 040 SOLAR PLANT FIRE, LARGE OUTSIDE OIL FIRE
2024007	04/21/2002	1042	TEXT 105 NEAR SOLAR PLANT...POSS CROSS OF HARPER LAKE RD X ROY...OUT OF CONTROL BURNJOB....RP PHONE # 760-7625424
2036894	06/19/2002	0014	MISC 072 (B2816) , LL ON CALL FOR WATER PAGED TO CALL THE DANA AT THE POWER PLANT
2037295	06/20/2002	1733	TEXT 044 1/2 E OF SOLAR PLANT...LARGE COLUMN OF SMOKE
2041718	07/08/2002	1658	TEXT 064 POWER PLANT..GENERAL FIRE....PERSON TO MEET YOU AT UNIVERSITY CT
2041887	07/09/2002	1334	TEXT 059 POWER PLANT...GENERAL FIRE ALARM MADE ACCESS OFF UNIVERSITY
2044039	07/18/2002	1928	TEXT 043 AT THE POWER PLANT, GEN FIRE ALARM NO RESET
2052135	08/24/2002	2200	NEWLOC 026 (F1435) RED SOLAR INCIDENT
2052135	08/24/2002	2202	MOVEOS 021 (F1435) E125 SOLAR IC
2052135	08/24/2002	2220	MOVEOS 022 (F1435) BC149 SOLAR IC

2059978 09/28/2002 2328 TEXT 085 NEAR AZ 95 AT COURTRIGHT, NEAR THE SOUTH POINT POWER PLANT, REQ AMBULANCE.TB 352 D10
2075159 12/09/2002 1118 MISC 091 (A7910) ME62 , EDISON POWER PLANT NOTHING SHOWING DID HAVE AN EXPLOSION WITHA POWER OUTAGE
3014343 03/04/2003 1439 TEXT 018 AT THE POWER PLANT
3022802 04/12/2003 1559 TEXT 085 NEAR LG POWER PLANT, TOWARDS END OF ESCONDIDO, NEAR LARGE BUSH, NUMEROUSDRUMS DUMPED
3029305 05/12/2003 2012 TEXT 118 E911 TIME: 201002 SEVERAL EXPLOSIONS HEARD AT EDISON SUB POWER PLANT ACROSSFROM THIS ADDRESS :ELECTRICITY OUT IN AREA
3044743 07/15/2003 1517 TEXT 026 POWER PLANT SMOKE DETECTOR
3073855 11/14/2003 1302 TEXT 086 POWER PLANT-GENERAL FIRE ALARM-POSS SMOKE FROM A WELDER OR DUST IN THE AREA-RP UNSURE
3078657 12/05/2003 1422 TEXT 038 POWER PLANT..GENERAL ALARM..X PROSPECT
3084807 12/29/2003 0812 TEXT 061 E911 TIME: 081017 RP SEE SMOKE BEHIND THE FONTANA POWER PLANT
3085269 12/31/2003 0947 TEXT 122 PROSPECT BTWN ANDERSON AND THE FIRST DRIVEWAY ON THE NORTH SIDE OF THESTREET \\ WATER LEAKING INTO THE POWER PLANT TUNNEL
4015231 03/08/2004 1900 TEXT 070 LARGE FLASH OF LIGHT SEEN FROM THE POWER PLANT / POSS TRANSFORMER FIRE
4037936 06/17/2004 1131 TEXT 089 E911 TIME: 113004 AT THE CONSTRUCTION AREA OF THE POWER PLANT, 40 Y/O MAN,POSSIBLE HEART
4045870 07/20/2004 1017 TEXT 060 E911 TIME: 101550 40Y FEM,FALL ARM INJ/EMPLOYEE, POWER PLANT
4060317 09/20/2004 1931 TEXT 091 NEAR POWER PLANT, MC T/C 1 MALE SUBJ, REQ'G AMB, BETWEEN NORTH DYKE ENTRANCEAND CORTWRIGHT
4067327 10/20/2004 2218 MISC 040 (B5541) E4 , STEAM FROM POWER PLANT - MI
4071679 11/09/2004 0725 TEXT 126 E911 TIME: 072133 ILL 51 YOM, HI BP, AT THE POWER PLANT. MEET RP IN A SMALLWHT P/U AT THE CORNER OF SAN BERNARDINO & MTN VIEW
4072656 11/13/2004 2126 MISC 078 (O0407) E127 , ALL THE POWER IS OFF ST THE POWER PLANT - BACK UP LIGHTS AREON
4075684 11/27/2004 0920 MISC 048 (A7909) E40 , STAGE AT POWER PLANT AND ESCONDIDO
4075684 11/27/2004 0924 MISC 069 (A7909) E40 , NEED A/S ME301 GC CALCOR LZ ON ESONDIDO, BY POWER PLANT
5007686 02/01/2005 0923 TEXT 034 POWER PLANT GENERAL BLG FIRE ALARM
5041246 06/25/2005 1324 TEXT 164 ON 58 10 MILES EAST OF KRAMER JUNCTION/RP WILL MEET ON RED HONDA DIRT BIKENEAR SOLAR PANELS/50 YOM OFF RD TC/DISORIENTED/INJURED RIGHT WRISTS ANDSHOULDER/HIT I
5047481 07/18/2005 0841 ADVISD 090 POWER PLANT UNDER CONTRUCTION/POSS HEART, X OF THE SANTA ANA WASH, CALLGIVEN TO CITY FIRE
5047482 07/18/2005 0845 MISC 021 (B5541) , POWER PLANT
5047854 07/19/2005 1554 CHGLOC 051 KECK SOLAR PLANT, DAGGETT TO 35100 SANTA FE ST ,DAG
5047854 07/19/2005 1604 MISC 168 (H2744) , | VEG FIRE/LIGHTNING STRIKES- DAGGETT AREA/OLD SEGS 1 SOLAR PLANT-70 PLUS ACRES AT THIS TIME AT THE RIVER BOTTOM.HAS BEEN SENT TO THEFOLLOWING PAGER(S):9
5050516 07/30/2005 0347 TEXT 037 EXPLOSION FROM A POWER PLANT BUILDING
5054917 08/17/2005 1029 TEXT 095 AT THE POWER PLANT, FEMALE WAS FOUND ON PROPERTY, ALOC, SHE WALKED TO LOCFROM HER DISABLED VEH
5069994 10/21/2005 1759 TEXT 143 CHECK AT THE SOLAR PLANT- REPORTS OF CLOUD ABOVE IT- PLANT STATES ITS HEATTRANSFER FLUID- PASSERBYS ARE HAVING ISSUES- IRRITATING TO THE EYES-
5073831 11/08/2005 0232 MISC 042 (F1435) DES1 , ACROSS FROM THE POWER PLANT
5085786 12/29/2005 1751 TEXT 136 FLAMES FROM VEG ON AN OLD RANCH 8 MILES NORTH OF 58 ON HARPER LAKE RD/ RPCALLING FROM THE SOLAR PLANT AND IS VISIBLE FROM THIS LOCATION
6002347 01/09/2006 1807 TEXT 118 SOLAR PLANT, NOTIFICATION ONLY 75 GAL MONSANO VP1 HEAT TXFER FLUID SPILL,CLEAN UP CREW OS, X282 ALSO CELL #7609649862
6005946 01/25/2006 1443 TEXT 082 GENERATOR ACTIVATION AT BLDG JUST OUTSIDE POWER PLANT. X-ANDERSON.. DID NOTVERIFY
6008209 02/04/2006 1627 TEXT 094 E911 TIME: 162501 *STAND BY* SO ENRT // RIVERSIDE CANAL POWER PLANT / 5150MALE COMP OF PAIN /
TITLE:CAD Narrative [CRLF]CAD Inc #: 06008209 Sheriff Inc#: ALS MEDICAL AID E911 TIME: 162501 *STAND BY* SO ENRT // RIVERSIDE CANAL POWER PLANT / 5150 MALE COMP OF P
6004975 02/04/2006 0001 [CRLF]At 1627 hours on Saturday February 4, 2006 we were dispatched to an EMS call. Two units were assigned to this incident. Two personnel responded. We arrived on scene at 1633 hours and cleared at 1653 hours
6010688 02/15/2006 1158 TEXT 069 RP ADV CHEM SPRAY OVER US 395 FROM SOLAR PLANT JNO KRAMER JCT, CHP ER
6010688 02/15/2006 1206 MISC 141 (F1435) , RP HAS LEFT THE AREA, GOING TOWARDS ADELANTO, THIS WAS A GAS, NOTA LIQUID, WAS NEAR THE SOLAR PLANT, RP CELL PHONE IS 949-212-2548
6006421 02/15/2006 0000 TITLE:CAD Narrative [CRLF]CAD Inc #: 06010688 Sheriff Inc#: HAZARDOUS MATERIALS RP ADV CHEM SPRAY OVER US 395 FROM SOLAR PLANT JNO KRAMER JCT, CHP ER[CRLF]
6011266 02/18/2006 0231 TEXT 029 SMOKE COMING FROM POWER PLANT
6022083 04/06/2006 1440 MISC 066 (H2730) , RED BC STS POSSIBLY NEAR THE POWER PLANT NEAR RED BORDER
6034449 05/30/2006 1136 TEXT 033 GEN FIRE ALARM AT THE POWER PLANT
6034449 05/30/2006 1146 MISC 044 (M4694) MS251 , POWER PLANT NO9THING SHOWING
6038705 06/17/2006 0956 TEXT 029 VEG FIRE NEAR THE POWER PLANT
6075556 11/18/2006 0930 MISC 163 (C5205) , *** PER RO: HOLE IS ON HELENDALE BTWN STATE 58 AND SILVER LAKES,RP WAS CALLING FROM THE SOLAR POWER PLANT, MAKE CONTACT W/ANYONE AT CB# IFANY QUESTION
6075556 11/18/2006 0930 MISC 163 (C5205) , *** PER RO: HOLE IS ON HELENDALE BTWN STATE 58 AND SILVER LAKES,RP WAS CALLING FROM THE SOLAR POWER PLANT, MAKE CONTACT W/ANYONE AT CB# IFANY QUESTION
7017023 03/10/2007 2026 ADVISD 203 REF CAD #014, FEM SUBJ FROM INC WAS W/ 2 MALE SUBJ ALSO LOST SOMEWHERE ONTHE BASE PAST THE SOLAR PANELS IN A VAN OR MOTORHOME W/2 FLATS, PER SBSO RP#714421
7012220 03/22/2007 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 07019896 Sheriff Inc#: FALSE ALARM FONTANA TRUCK STOP: AIR DUCT SMOKE DET/ PREM 909-829-6671SOLAR SYSTEM 455 80022805
7027251 04/24/2007 1245 TEXT 024 FIRE ALARM - POWER PLANT
7055255 08/19/2007 1020 MISC 069 S4 , MET WITH RP FROM SOLAR PLANT, DIRECTING FURTHER TO POSS LOCATION
7062835 09/19/2007 2310 TEXT 039 IN POWER PLANT / RP WILL MEET AND GUIDE
7066984 10/08/2007 1900 MISC 053 (B8165) BP125 , IN AREA - MAKING ACESS TO SOLAR PLANT

7070089 10/22/2007 0528 ONSCNE 062 (B8165) C-3600 , BEST ACCESS GRASS VALLEY RD TO POWER PLANT RD

7084685 12/22/2007 1147 TEXT 020 NEAR THE POWER PLANT
TITLE:CAD Narrative [CRLF]CAD Inc #: 07084685 Sheriff Inc#: TC W/NO INJURIES NEAR THE POWER PLANTRIVER MEDICAL RHONDA 7025214818[CRLF][CRLF]TITLE:N

7052032 12/22/2007 0000 Saturday December 22, 2007 we were dispatched to a vehicle accident with no injuries. Four units were assigned to this incident. We arrived on scene at 1159 hours and cleared at 1215 hours. The incident occurred at O

8012798 02/20/2008 0931 ADVISD 155 STATES HE IS LOOKING ACROSS THE RIVER AND STATES THERE IS A VEG FIRE NEXT TOTHE POWER PLANT. ADV MOJAVE VLY WHO STATES THEY HAVE SEVERAL BURNS IN THE AREA

8020933 03/25/2008 2227 TEXT 042 ELECTRICAL POWER PLANT / RP # 909-208-6521

8012751 03/25/2008 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 08020933 Sheriff Inc#: UNABLE TO LOCATE ELECTRICAL POWER PLANT / RP # 909-208-6521SBSO[CRLF]

8031076 05/08/2008 1407 TEXT 041 VEH INTO BLDG, POWER PLANT, BLUE CORVETTE

8018734 05/08/2008 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 08031076 Sheriff Inc#: TC W/EXTRICATION NEEDED VEH INTO BLDG, POWER PLANT, BLUE CORVETTECHP TXFER 9098253414[CRLF]

8038613 06/07/2008 1641 MISC 068 (D8247) , PER MOHAVE VALLEY THIS IS GOING TO BE NEAR THE POWER PLANT

8038613 06/07/2008 1653 MISC 138 (D8247) , PER MOHAVE VALLEY FIRE GAVE UPDATED ADDRESS TO FIRE / THIS ISGOING TO BE NEAR THE POWER PLANT AT 3775 COURTWRIGHT RD X VIEW LN.

8042653 06/23/2008 1339 MISC 121 (10546) , S.O UNIT ADVISED ON SCENE NORTH END / OF EDISON POWER PLANT - SEESA PROBLEM NOT ABLE TO CONFIRM FIRE OR SMOKE/

8044143 06/29/2008 1857 TEXT 063 35MALE / SOLAR POWER PLANT - 395 2 MILE N/O JUNCTION / EXT. 700

8044143 06/29/2008 1857 TEXT 063 35MALE / SOLAR POWER PLANT - 395 2 MILE N/O JUNCTION / EXT. 700

8044143 06/29/2008 1910 MISC 047 (B6449) , SOLAR PLANT WILL MEET AT 58/HELENDALE

8046564 07/08/2008 1641 TEXT 050 TWO FIRES BURNING BY THE SOLAR PLANTS/ CHP IN AREA

8046564 07/08/2008 1659 MISC 044 (B6449) BE4 , IN AREA OF THE SOLAR PLANT UTL

8027875 07/08/2008 0001 TITLE:CAD Narrative [CRLF]CAD Inc #: 08046564 Sheriff Inc#: UNABLE TO LOCATE TWO FIRES BURNING BY THE SOLAR PLANTS/ CHP IN AREACHP[CRLF]

8067935 10/05/2008 1850 TEXT 033 POWER PLANT FIRE ALARM ACTIVATION

8067935 10/05/2008 1856 MISC 042 T251 , 2 STORY POWER PLANT NOTHING SHOWING

8074656 11/02/2008 1457 TEXT 127 TRANSFORMER FROM EDISON POWER PLANT EXPLODED, TRAFFIC LIGHTS IN THE AREA NOWOUT, CHP ADV WILL NOTIFY EDISON, ALSO REQ CO ROADS
TITLE:CAD Narrative [CRLF]CAD Inc #: 08074656 Sheriff Inc#: ELEC INCIDENT - OUTSIDE TRANSFORMER FROM EDISON POWER PLANT EXPLODED, TRAFFIC LIGHTS IN THE AREA NOW

8044802 11/02/2008 0001 ALSO REQ CO ROADSCHP[CRLF][CRLF]TITLE:ME10 [CRLF]At 1457 hours on Sunday November 2, 2008 we were dispatched to an electrical wiring/equipment problem. One unit was assigned to this incident

8085249 12/17/2008 1720 TEXT 021 SOLAR PLANT, 64YM SOB
TITLE:CAD Narrative [CRLF]VERIZON WIRELESS 800 451 5242 Master Incident Number:09-011167 ON WIRELESS 800 451 BDC 09005650 Primary Jurisdiction Inc.#: BDC 09005650 Dis

9005650 02/07/2009 0001 Permit # 02/07/2009 18:56:29B8165 W/O SOLAR PLANT OFF RDWY IN DESERT 02/07/2009 18:53:54SYS WPH2 LAT:34.99401900 LON:-117.567379 METERS:57 %:095 02/07/2009 18
TITLE:CAD Narrative [CRLF]JULIE Master Incident Number:09-023604 BDC 09011634 Primary Jurisdiction Inc.#: BDC 09011634 Disposition:03/20/2009 15:05:58

9011634 03/20/2009 0001 15:05:52S3402 LARGE COLUMN OF BLACK SMOKE, POSS NEAR THE SOLAR PLANT 03/20/2009 15:05:58S3402 604 03/20/2009 15:06:16TSSIntRMS: Confire SunproExternal Case Number
TITLE:CAD Narrative [CRLF]CAD Master Incident Number:09-032897 BDC 09016020 Primary Jurisdiction Inc.#: COL 09001508 Disposition:04/20/2009 15:48:06TSS Alarm Perr

9016020 04/20/2009 0001 BRUSH FIRE POWER PLANTS CUTTING BRUSH 04/20/2009 15:48:52B6449 1 ACRE 04/20/2009 15:49:20B6449 POWER PLANT WAS CUTTING BRUSH AND STARTED THE FIRE ABOUT 1
TITLE:CAD Narrative [CRLF]VVSO Master Incident Number:09-046123 BDC 09022469 Primary Jurisdiction Inc.#: BDC 09022469 Disposition:06/02/2009 23:50:4

9022469 06/02/2009 0001 23:50:47H0664 S.O. ER ...REPT BONFIRE IN THE AREA OF THE POWER PLANT 06/02/2009 23:51:15TSSIntRMS: Confire SunproExternal Case Number 'BDC 09022469' added for San Bernardino Count
TITLE:CAD Narrative [CRLF]CAD Master Incident Number:09-086249 BDC 09041365 Primary Jurisdiction Inc.#: BDC 09041365 Disposition:09/15/2009 05:33:10TSS Alarm Perr

9041365 09/15/2009 0000 ATTHE ENDOF HAR;PER DY LAKE BY THE SOLAR PLANT GOINFG NORTH OF HY 58 09/15/2009 05:32:59H0664 249 09/15/2009 05:33:48TSSIntRMS: Confire SunproExternal Case Number 'BDC 090

EXB 326 - CSBFD 2010i - San Bernardino County Fire Department (TN 57303) SBCFD staffing cost estimates for a fire station. Submitted to CEC on 6/24/2010.

FY 09/10 Position Title	Pay Grade	Step	Ben 5	Fill #	Hrs	Rate	Salary-Regular	Overtime	Retirement Employer Paid SAF	Retirement - Employer Pickup	Med Premium Subsidy	UI	Soc Sec - Medicare	Workers Comp	Life Insurance/ RMT	Uniform	Total	# of Emp	Total for # of Emp		
Costed @ Step 11																					
BG Fire Fighter (PM)	893	11	PMREG	1	128	$22.78	84,511	4,761	24,791	5,999	8,836	112	1,294	5,963	809	1050	138,126	3	414,379		414379
BG Engineer	894	11		1	128	$26.12	89,304	5,459	25,914	6,271	8,836	112	1,374	6,330	927	1050	145,577	3	436,732		436732
BG Captain I	895	11		1	128	$31.07	106,228	6,494	30,825	7,459	8,836	112	1,634	7,530	1,103	1050	171,271	3	513,812		
Totals							**280,043**	**16,714**	**81,530**	**19,729**	**26,508**	**336**	**4,302**	**19,823**	**2,839**	**3,150**	**454,974**	**9**	**1,364,923**		**851,111**
Costed @ varied Steps 7, 9, & 11																					
BG Fire Fighter (PM)	893	7	PMREG	1	128	$20.65	77,229	4,316	22,678	5,488	8,836	112	1,182	5,447	733	1050	127,071	3	381,214		
BG Engineer	894	9		1	128	$24.89	85,098	5,202	24,694	5,976	8,836	112	1,309	6,032	884	1050	139,193	3	417,579		
BG Captain I	895	11		1	128	$31.07	106,228	6,494	30,825	7,459	8,836	112	1,634	7,530	1,103	1050	171,271	3	513,812		
Totals							**268,555**	**16,012**	**78,197**	**18,923**	**26,508**	**336**	**4,125**	**19,009**	**2,720**	**3,150**	**437,535**	**9**	**1,312,605**		

EXB 327 - CSBFD 2010j - San Bernardino County Fire Department (TN 57304) SBCFD Estimated Costs Station Construction, Equipment and Staffing. Submitted to CEC on 6/24/2010.

San Bernardino County Fire
Fire Service Plan
Estimated Costs Station Construction, Equipment & Staffing

Re Newable Energy Facilities Mitigation Costs	Solar One Calico		Ivanpah		Abengoa		
Fire Station	Harvard	Amboy	Baker	Mt Pass	Hinkley	Kramer	
Improvement yr	2011	2012	2011	2012	2011	2012	
Station Construction							
Architecture/Eng		252,000		770,407		770,407	
Construction		1,500,000		2,690,616		2,690,616	
Proj Mgt/Misc		348,605		366,035		366,035	
Station Set up Costs		336,973		136,973		136,973	
Total Station Const Costs	0	2,437,578	0	3,964,031	0	3,964,031	
Type 1 Engine		724,605		724,605		724,605	
Total Pre Operation Cost	0	3,162,183	0	4,688,636	0	4,688,636	12,539,455
Annual Operating Costs							
Staffing	1,837,165	1,837,165	1,837,165	1,837,165	1,837,165	1,837,165	
Services & Supplies		102,752		102,752		102,752	
Engine Replacement	37,929	37,929	37,929	37,929	37,929	37,929	
Est Annual Operating Costs							
	1,875,094	1,977,846	1,875,094	1,977,846	1,875,094	1,977,846	
Total Start Up Cost	1,875,094	5,140,029	1,875,094	6,666,482	1,875,094	6,666,482	24,098,275
Pre Operational +							
Annual Operating Costs							36,637,730
Architecture/ Eng @ 2% per year							
Construction @ 2.5% per year							
Staffing @ 5% per year							
Services Supplies @3% per year							

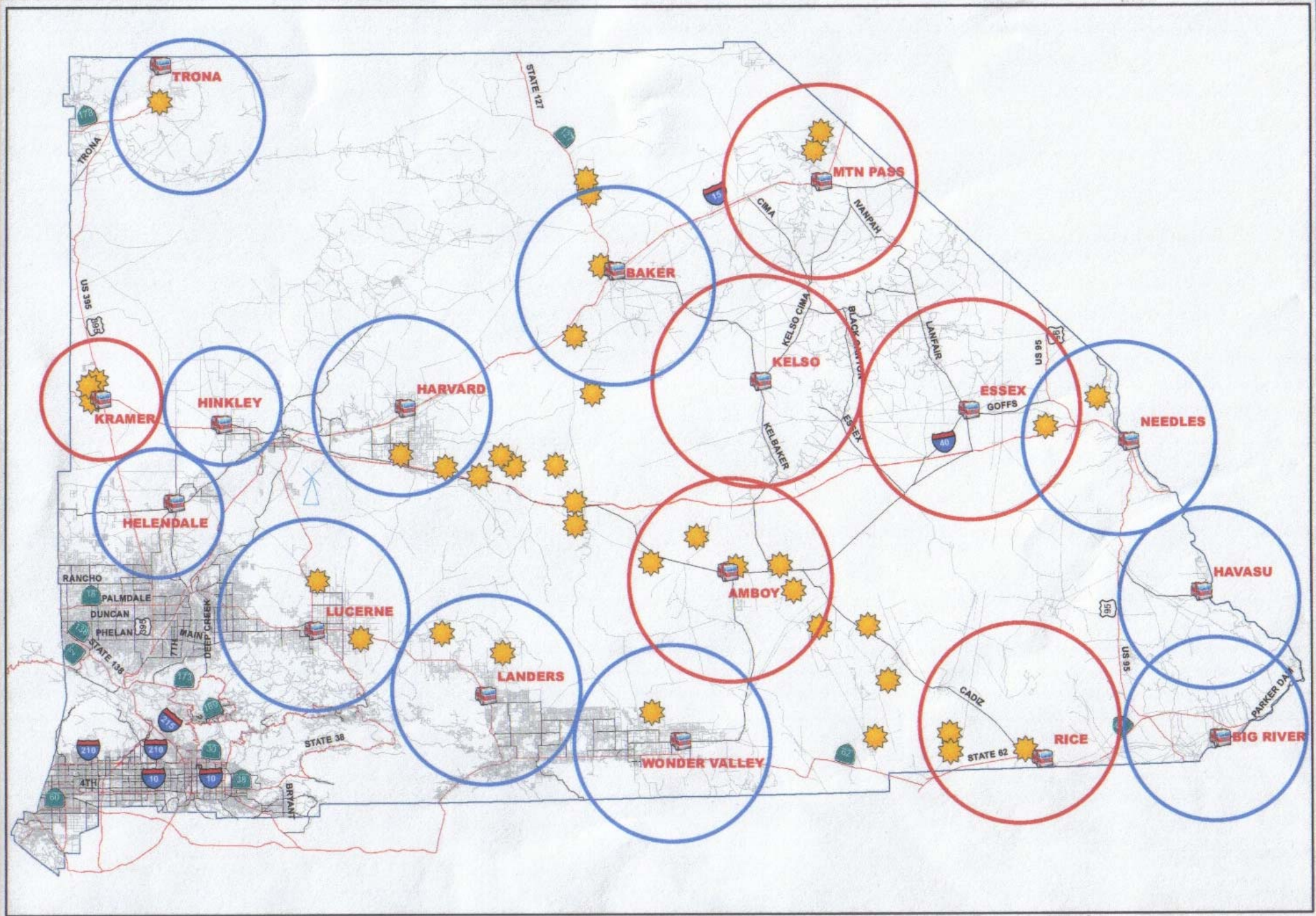
EXB 328 - CSBFD 2010k - San Bernardino County Fire Department (TN 57378) SBCFD Map of Renewable Energy Projects, March 2010. Submitted to CEC on 6/29/2010.

Abengoa Mojave Solar 09-AFC-5

Document Title: San Bernardino County Fire Department - Map of Renewable Energy Projects, March 2010

The attached map is generated by the SBCFD that identifies locations of proposed renewal energy projects (thermal, wind, and PV), their existing fire stations, and their proposed fire stations.

This map is being docked by CEC staff as a reference for Worker Safety and Fire Protection for the Abengoa Mojave Solar project.



San Bernardino County

Renewable Energy Projects

Legend

Fire Station

SOLAR

WIND

San Bernardino County Fire
Pat A. Dennen, Chief

EXB 329 - CSBFD 2010l - San Bernardino County Fire Department (TN 57410) Estimated Allocation of Fire Facility Costs to Proposed Solar Energy Installations prepared by Hoffman Associates for San Bernardino County Fire Department. Submitted to CEC on 7/1/2010.

STANLEY R. HOFFMAN ASSOCIATES

11661 San Vicente Boulevard Suite 306
Los Angeles, California 90049
310.820.2680, 310.820.8341 fax
www.stanleyrhoffman.com

MEMORANDUM

To: Gerry Newcombe, County Administrative Office, San Bernardino County
Chief Peter Brierty, San Bernardino County Fire Department

From: Stan Hoffman, President, Stanley R. Hoffman Associates, Inc.

Date: June 30, 2010

Subject: Estimated Allocation of Fire Facility Costs to Proposed Solar Energy Installations

Project #: 1210

Overview

This memorandum presents an allocation of capital costs (fire station and equipment) for proposed County fire department facilities among the 14 proposed solar farm projects in San Bernardino County. The primary purpose of this analysis from the development impact fee (DIF) perspective is to allocate capital costs from new fire stations to provide coverage for the potential fire protection-related and emergency medical services needs of the proposed solar projects. In doing so, the allocation methodology assigns a 'fair share' cost to the proposed solar projects by establishing the nexus between their impact on fire protection-related and emergency medical services and capital improvement costs to provide these services. We also show, for comparison purposes, an allocation of ongoing operations and maintenance costs to the solar projects from upgrades to existing stations and the proposed new fire stations.

The general locations of these proposed County fire facilities and proposed solar farms are shown in Figure 1. As shown in Table 1, the allocation of capital costs, based on a weighted matrix that evaluates emergency response risk, is very much dependent upon whether the solar facilities are photovoltaic or the larger solar thermal systems, which use chemical substances such as Therminol and gaseous hydrogen to transfer heat. The higher allocated capital costs rounded to the nearest thousands are for Abengoa ($860,000), Ivanpah ($526,000) and Solar One ($1,187,000). In comparison, the photovoltaic systems are allocated lower capital costs ranging from about $67,000 to about $202,000. A similar allocation was performed for distributing estimated operations and maintenance costs for proposed upgrades and proposed new stations. As shown in Table 2, allocations of the annual operations and maintenance costs range from about $62,000 to $187,000 for the photovoltaic systems and about $485,000 to $1,095,000 for the thermal systems.

Overview of Solar Energy Technology

Solar energy technologies can be summarized under two general categories: photovoltaic (PV) and thermal. Photovoltaic systems generate energy directly from the sun, while thermal systems harness the sun's energy to heat transfer mediums like water or Therminol to drive steam-turbine generating plants. In the solar thermal hydrogen systems, the sun's energy causes the expansion and contraction of hydrogen to drive the turbine. In the United States, the power industry has focused on solar thermal technologies mainly because it is perceived as more commercially viable than solar PV technologies. However, PV systems are becoming more competitive as technological advancements allow manufacturers to increase panel efficiency and reduce costs. Appendix A provides a more detailed description of the technologies underlying PV and thermal solar energy systems. The advantages and disadvantages of thermal systems relative to photovoltaic systems are summarized below:

Advantages

- Thermal systems produce more energy than PV systems. As shown in Table 3, in San Bernardino County the three thermal systems range from 250 to 850 megawatts, while the PV systems range from 1.3 to 104.0 megawatts.
- Solar thermal systems can work in the shade for brief amounts of time, since the heated fluids they depend on can stay hot enough to generate electricity for some time without the sun.

Disadvantages

- Thermal systems present a much higher fire risk than PV systems. As shown in Table 4, the San Bernardino County Fire Department and California Energy Commission staff jointly ranked the three thermal projects as very high priorities for emergency fire response, while the 11 PV projects were ranked as only low to moderate priorities.
- Unlike PV systems, thermal systems require on-site staff to perform operations and maintenance. Because individuals are required to work on-site, these systems require additional public services such as fire protection, rescue, hazardous materials spill response and emergency medical response.
- Thermal systems are larger and require more land than PV systems. As shown previously in Table 3, the three proposed thermal systems in San Bernardino County have disturbed acreages ranging from 1,765 acres to 8,230 acres, while the 11 proposed PV systems have disturbed acreages ranging from 12 acres to 922 acres.

San Bernardino County Proposed Solar Projects

As shown in Table 3, a total of 14 solar energy projects are proposed for San Bernardino County (two projects shown in Table 3 are wind energy projects). Of the 14 total solar projects, 11 are

based on PV technology and 3 are based on thermal technologies (1 each of water, Therminol and gaseous hydrogen). There is large disparity between the PV projects and the thermal projects in terms of size (disturbed acreage) and installed capacity (megawatts). As shown in Table 3, the 11 PV projects are smaller in acreage, with lower installed capacity compared to the 3 thermal projects. The PV projects range from Soltech Solar (12 acres, 1.3 megawatts) to Rabbit Springs Solar (922 acres, 104.0 megawatts), while the thermal projects range from Abengoa (1,765 acres, 250.0 megawatts) to Solar One (8,230 acres, 850.0 megawatts). As shown in Table 3, on a megawatts per 1,000 acres basis, the installed capacity of the PV projects range from Lucerne Valley Solar (87.2) to Axio Power Holdings, El Mirage (142.0), while the installed capacity of the thermal projects ranges from Solar One (103.3) to Abengoa (141.6).

The 14 proposed solar farm projects are located in the Desert region of San Bernardino County, which is comprised of three economic sub-areas (ESAs) – Morongo Basin, Outlying Desert, and Victor Valley-Barstow – as designated under the County General Plan. Shown in Table 5 are the concentrations of proposed solar projects by each of these geographic sub-areas. The Outlying Desert ESA, which contains one each of solar thermal-water and thermal-hydrogen projects and one PV project, has the largest aggregate installed capacity (1,255 megawatts) and disturbed acreage (11,910 acres). The Victor Valley-Barstow ESA has the most solar projects (eight PV and one thermal), totaling 583 megawatts and 4,496 disturbed acres. The Morongo Basin ESA contains two PV projects and no thermal projects, for a total of 65 megawatts and 673 disturbed acres. The estimated on-site employment for the thermal systems ranges from 80 employees for the Abengoa project to 164 employees for the Solar One project near Calico. The PV and wind projects are estimated to have insignificant full-time employment on-site.

Total Fire Facility Capital and Operations and Maintenance Costs

As shown in Table 6, the capital costs for both proposed ($12.5 million) and future fire stations ($14.1 million) total an estimated $26.6 million. Cost estimates for annual operations and maintenance costs are shown separately in Table 6. The capital cost estimates are for new fire facilities, and the operations and maintenance costs are for upgrades to existing stations as well as new facilities. In many cases, the existing stations in more remote areas are operated on a paid-call basis and do not have a full time fire personnel staff.

Methodology

The total megawattage output estimated for each solar farm facility, as shown in Table 1, is grouped into one of four megawattage categories: 1) less than 50 megawatts; 2) 50 to less than 100 megawatts; 3) 100 megawatts to less than 500 megawatts; and 4) 500 megawatts or greater. Power plants greater than 50 megawatts are under the authority of the CEC. For power plants between 50 and 100 megawatts, the CEC often grants a Small Power Plant Exemption (SPPE) which then allows for local enforcement; anything greater than 100 megawatts requires a full Application for Certification (AFC), an environmental review and continued enforcement by the CEC. A power plant of 500 megawatts or larger is considered a medium to large power plant.

These megawattage categories are then weighted according to an "emergency response matrix," as shown previously in Table 4. The emergency response rating for each solar farm project was developed by the San Bernardino County Fire Department in conjunction with staff from the California Energy Commission. Solar projects were rated based on five criteria to determine the urgency of the need for additional resources and mitigation, with a higher rating indicating greater emergency response urgency. The five criteria were: 1) Inspections; 2) Fire/Explosion risk; 3) HazMat risk; 4) Rescue First Alarm; and 5) EMS response of certified medic. Each factor was then weighted according to its estimated proportionate contribution to the composite ranking. As shown in Table 4, the weighting factors range from a low of 1.0 for several of the photovoltaic systems to a high to 4.4 for the Calico system.

Establishing Development Impact Fee Nexus

Following the 'nexus' criteria to allocate the fair share costs of potential capital improvements to new development, we first establish the impact of projected background demographic growth on demand for new fire services. This impact is established by applying a geographically appropriate per capita level of fire service to the projected population growth within the three ESAs where the solar projects are located. As shown in Table 7, based on information obtained from the San Bernardino County Fire Department, the population served per station facility varies greatly among the five County Fire Divisions, ranging from around 14,000 persons per station in the more urbanized areas of the Valley Division and the Victorville Division to only about 2,900 persons per station in the South Desert Division. An average level of service of about 5,400 persons per station for the North and South Divisions taken together was considered

appropriate to apply to the background demographic growth projected to occur within the three Desert ESAs (Morongo Basin, Outlying Desert and Victor Valley-Barstow) over the 2008 to 2020 time period, where the solar projects are located.

As shown in Table 8, based on information obtained from the County Land Use Services Department, a total population growth of 9,457 persons is projected for the Desert Planning Area under the current County General Plan. Further, this growth was allocated down to the three ESAs – Outlying Desert, Victorville/Barstow and the Morongo Basin, as show in Table 8. The estimated projected growth within these areas results in a total demand for 1.75 new stations, applying the level of service factor of 5,400 persons per station. This projected residential demand comprises a share of 58.4 percent of the total 3 new fire stations proposed by the County Fire Department to potentially provide coverage for the solar projects. Following this method, it is estimated that the remainder 41.6 percent of net new demand for fire services originates from all other non-residential uses, including commercial activities and traffic-related calls.

In order to get a finer breakdown of all other non-residential calls, and as a check for the percent share attributed to projected new residential calls, we examined the County Fire Department call volume data for 2009 by different call origin types (residential, traffic and commercial) distributed by Urban, Rural and Remote areas within the County, as shown in Table 9. Given the location of the solar projects in the desert areas of the County, a weighted percent call distribution for the combined Rural and Remote areas was considered reflective of the possible call volume pattern serviced by the 3 proposed new stations. The weighted average call volume for 2009 in the Rural and Remote areas indicates 59.7 percent of all calls had residential origin, which is similar to the population growth projection-based estimate of 58.4 percent. Further, the call volume data indicates that of the remainder 40.3 percent of service calls, 28.8 percent were commercial-related and 11.4 percent were traffic-related, as shown in Table 9. Following from this, we assume a rounded factor of 29.0 percent for commercial-related calls as representative of the fair-share allocation of costs from new capital improvements to the solar projects, as shown in Table 9. Applying the 29.0 percent factor to the total capital improvement costs of $12.54 million from proposed new fire stations, results in a fair-share allocation of $3.64 million to the proposed solar projects. The above fair-share cost was then allocated to each solar project based on its composite weighting, as described next.

Allocation of Fair-share Capital Costs to Individual Solar Projects

As previously shown on Table 1, each project's emergency response rating (from Table 4) was then multiplied by its megawattage category to determine its weighted megawattage ranking. Each project's megawattage was obtained from the project's application as is shown on Table 3. Then, each project's individual share of total weighted megawattage ranking – expressed as a percentage – was then used to distribute fire facility capital cost responsibilities. As shown on Table 1, the total capital cost for proposed stations of $12.54 million was multiplied by the fair-share factor of 29.0 percent to estimate the proposed solar farms' aggregate capital cost responsibility of about $3.64 million.

This methodology spreads the costs proportionally among the stations in the Desert region of San Bernardino County even though some of the facilities are in more urbanized areas versus more remote areas within the Desert region. While one station may be the first responder to an emergency, the other stations will provide backup support depending upon the location and severity of the emergency.

Conclusions

Approximately $3.64 million of the $12.54 million required for proposed fire facility capital costs has been allocated to solar farms in the Desert region of San Bernardino County, as shown previously in Table 1. The distribution of capital costs to solar thermal projects ranges from about $526,000 to $1,187,000, while the distribution of capital costs to PV projects ranges from about $67,000 to $202,000 per project. This difference is the result of solar thermal projects having a significantly greater emergency response rating and size (as measured by megawattage), and therefore greater potential impacts on County fire services capabilities. While relatively little commercial growth is projected in the Outlying Desert area of San Bernardino County, if significant commercial growth does occur or other solar farms are proposed, then the County may consider a reallocation of the fire facility costs and reimbursement agreements in the future for projects that have already contributed toward off-setting those fire facility costs.

As discussed earlier, a similar allocation was performed for distributing estimated operations and maintenance costs for proposed upgrades and proposed new stations. As shown previously in

Table 2, allocations of the annual operations and maintenance costs range from about $62,000 to $187,000 for the photovoltaic systems and about $485,000 to $1,095,000 for the thermal systems.

A taxable Possessory Interest may exist whenever there is a private, beneficial use of publicly-owned, non-taxable real property. Such interests are typically found where private individuals, companies or corporations lease, rent or use federal, state or local government owned facilities and/or land for their own beneficial use. For those solar farm projects that have long-term leases, whatever future possessory interest property tax is collected by the County will be used to help off-set the annual fire facility operations and maintenance costs.

Figure 1
Proposed Solar Farms and San Bernardino County Fire Facilities

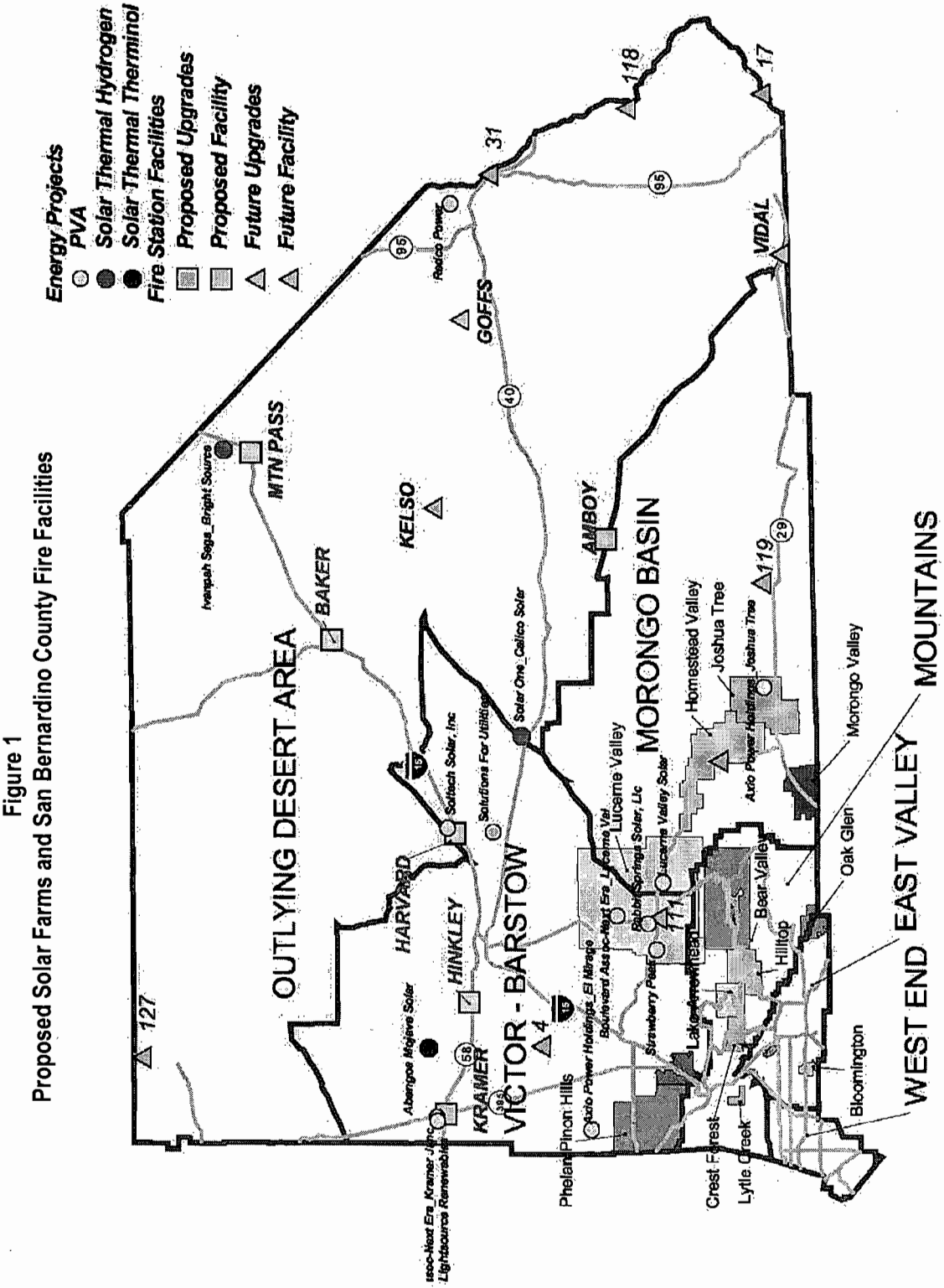


Table 1
Estimated Distribution of Capital Cost Responsibilities by Solar Farm Project

Serial Number	Project Name	Technology	Emergency Response Matrix Rating[1] (A)	Megawatts by Project[2]	Size Impact Rating[3] (B)	Weighted Composite Response and Size Rating[4] (A X B)	Percentage Distribution of Weighted Rating[5]	Allocation of Capital Costs by Project[6]	Rounded Allocation of Capital Costs by Project[7]
1	Soltech Solar, Inc	PVA	1.0	1.3	1.0	1.0	1.86%	$67,466	$67,000
2	Solutions For Utilities	PVA	1.0	3.0	1.0	1.0	1.86%	$67,466	$67,000
3	Strawberry Peak	PVA	1.0	15.0	1.0	1.0	1.86%	$67,466	$67,000
4	Boulevard Assoc-Next Era, Kramer Junction	PVA	1.0	20.0	1.0	1.0	1.86%	$67,466	$67,000
5	Lightsource Renewables	PVA	1.0	40.0	1.0	1.0	1.86%	$67,466	$67,000
6	Boulevard Assoc-Next Era, Lucerne Valley	PVA	1.0	60.0	2.0	2.0	3.71%	$134,933	$135,000
7	Rabbit Springs Solar, Llc	PVA	1.0	104.0	3.0	3.0	5.57%	$202,399	$202,000
8	Redco Power	PVA	1.0	5.0	1.0	1.0	1.86%	$67,466	$67,000
9	Axio Power Holdings, Joshua Tree	PVA	1.0	20.0	1.0	1.0	1.86%	$67,466	$67,000
10	Axio Power Holdings, El Mirage	PVA	1.0	90.0	2.0	2.0	3.71%	$134,933	$135,000
11	Lucerne Valley Solar	PVA	1.8	45.0	1.0	1.8	3.25%	$118,066	$118,000
12	Abengoa Mojave Solar	Solar Thermal Therminol	4.3	250.0	3.0	12.8	23.65%	$860,197	$860,000
13	Ivanpah SEGS, Bright Source	Solar Thermal Steam	2.6	400.0	3.0	7.8	14.47%	$526,238	$526,000
14	Solar One, Calico Solar	Solar Thermal Hydrogen	4.4	850.0	4.0	17.6	32.65%	$1,187,410	$1,187,000
			23.0	1,903.3		53.9	100.00%	$3,636,442	$3,632,000

TOTAL CAPITAL COST[8]	$12,539,455
COST SHARE OF SOLAR PROJECTS[9]	$3,636,442
ALLOCATION FACTOR[10]	29.00%

MEGAWATTAGE IMPACT CATEGORIES[11]

Megawatts	Rating
<50	1
50 to <100	2
100 to 500	3
Above 500	4

1. The emergency response weightings have been developed by the San Bernardino County Fire Department based on factors shown in Table 4.
2. This is the estimated total megawattage by project as provided by the project proponents applications.
3. See note 11.
4. Estimated weighted rating based on megawattage size category when multiplied by the emergency response matrix rating.
5. Percentage distribution of weighted rating by project; this weighting will be used to distribute capital cost responsibilities by project.
6. The allocation of capital cost responsibility to project is based on distributing the allocated fire facility cost share based on the weighted rating percentages.
7. Cost allocations rounded to the nearest thousands.
8. Estimated total new and upgraded fire facility capital costs.
9. Estimated fire facility capital cost share of proposed solar farm projects based on allocation factor as provided by San Bernardino County Fire Department.
10. Allocation factor based on call volumes associated with commercial development, as reported by the San Bernardino Fire Department and shown in Table 9.
11. Projects were also rated for demand for County fire services due to absolute size using project megawattage output to group the projects into four impact categories.

Source: Stanley R. Hoffman Associates, Inc.

Table 2
Distribution of Annual Operations and Maintenance Costs

Serial Number	Project Name	Technology	Emergency Response Matrix Rating[1] (A)	Megawatts by Project[2]	Size Impact Rating[3] (B)	Weighted Composite Response and Size Rating[4] (A X B)	Percentage Distribution of Weighted Rating[5]	Allocation of Capital Costs by Project[6]	Rounded Allocation of Capital Costs by Project[7]
1	Soltech Solar, Inc	PVA	1.0	1.3	1.0	1.0	1.86%	$62,190	$62,000
2	Solutions For Utilities	PVA	1.0	3.0	1.0	1.0	1.86%	$62,190	$62,000
3	Strawberry Peak	PVA	1.0	15.0	1.0	1.0	1.86%	$62,190	$62,000
4	Boulevard Assoc-Next Era, Kramer Junction	PVA	1.0	20.0	1.0	1.0	1.86%	$62,190	$62,000
5	Lightsource Renewables	PVA	1.0	40.0	1.0	1.0	1.86%	$62,190	$62,000
6	Boulevard Assoc-Next Era, Lucerne Valley	PVA	1.0	60.0	2.0	2.0	3.71%	$124,381	$124,000
7	Rabbit Springs Solar, Llc	PVA	1.0	104.0	3.0	3.0	5.57%	$186,571	$187,000
8	Redco Power	PVA	1.0	5.0	1.0	1.0	1.86%	$62,190	$62,000
9	Axio Power Holdings, Joshua Tree	PVA	1.0	20.0	1.0	1.0	1.86%	$62,190	$62,000
10	Axio Power Holdings, El Mirage	PVA	1.0	90.0	2.0	2.0	3.71%	$124,381	$124,000
11	Lucerne Valley Solar	PVA	1.8	45.0	1.0	1.8	3.25%	$108,833	$109,000
12	Abengoa Mojave Solar	Solar Thermal Therminol	4.3	250.0	3.0	12.8	23.65%	$792,926	$793,000
13	Ivanpah SEGS, Bright Source	Solar Thermal Steam	2.8	400.0	3.0	7.8	14.47%	$485,084	$485,000
14	Solar One, Calico Solar	Solar Thermal Hydrogen	4.4	850.0	4.0	17.6	32.65%	$1,094,549	$1,095,000
			23.0	1,903.3		53.9	100.00%	$3,352,058	$3,351,000

OPERATIONS AND MAINTENANCE COST[8]	$11,558,820
COST SHARE OF SOLAR PROJECTS[9]	$3,352,058
ALLOCATION FACTOR [10]	29.00%

MEGAWATTAGE IMPACT CATEGORIES [11]

Megawatts	Rating
<50	1
50 to <100	2
100 to 500	3
Above 500	4

1. The emergency response weightings have been developed by the San Bernardino County Fire Department based on factors shown in Table 4.
2. This is the estimated total megawattage by project as provided by the project proponents applications.
3. See note 11.
4. Estimated weighted megawattage when multiplied by the emergency response matrix rating.
5. Percentage distribution of weighted megawattage by project; this weighting will be used to distribute operations and maintenance cost responsibilities by project.
6. The allocation of operations and maintenance cost responsibility to project is based on distributing the allocated fire facility cost share based on the weighted megawattage percentages.
7. Cost allocations rounded to the nearest thousands.
8. Estimated operations and maintenance costs from proposed upgrades and new stations.
9. Estimated operations and maintenance cost share of proposed solar farm projects based on allocation factor as provided by San Bernardino County Fire Department.
10. Allocation factor based on call volumes associated with commercial development, as reported by the San Bernardino Fire Department and shown in Table 9.
11. Projects were also rated for demand for County fire services due to absolute size using project megawattage output to group the projects into four impact categories.

Source: Stanley R. Hoffman Associates, Inc.

Table 3
Physical Characteristics of Proposed Solar Farm Projects

No.	PROJECT NAME/ NUMBER	PROJECT NUMBER	TECHNOLOGY	JURISDICTION	EMPLOYMENT[1]	MEGAWATTS	ACREAGE	MEGAWATTS PER 1,000 ACRES
1	GRANITE WIND	P200700743	Wind	Under County Jurisdiction, Joint Review & Permitting with BLM	n/a	64.4	2,640	24.4
2	DAGGETT RIDGE WIND FARM, LLC	P200800589	Wind	Under County Jurisdiction, Joint Review & Permitting with BLM	n/a	82.5	1,957	42.2
3	SOLTECH SOLAR, INC	P20100018	PVA	County	n/a	1.3	12	112.3
4	SOLUTIONS FOR UTILITIES	P200900339/CUP/CF	PVA	County	n/a	3.0	22	136.4
5	STRAWBERRY PEAK	P200900655/CF	PVA	County	n/a	15.0	160	93.8
6	BOULEVARD ASSOC - NEXT ERA/ KRAMER JUNCTION		PVA	County	n/a	20.0	191	104.7
7	LIGHTSOURCE RENEWABLES	P200900470	PVA	County	n/a	40.0	350	114.3
8	BOULEVARD ASSOC - NEXT ERA/ LUCERNE VALLEY	P200900663/CF	PVA	County	n/a	60.0	440	136.4
9	RABBIT SPRINGS SOLAR, LLC	P200900580/CF	PVA	County	n/a	104.0	922	112.8
10	REDCO POWER	P200900558	PVA	Pre-application	n/a	5.0	40	125.0
11	AXIO POWER HOLDINGS - JOSHUA TREE	P200900666/PAC	PVA	Pre-application	n/a	20.0	157	127.4
12	AXIO POWER HOLDINGS - EL MIRAGE	P200900665/PAC	PVA	Pre-application	n/a	90.0	634	142.0
13	LUCERNE VALLEY SOLAR		PVA	BLM	n/a	45.0	516	87.2
14	ABENGOA MOJAVE SOLAR		Solar Thermal with Therminol Fluid	CEC	80	250.0	1,765	141.6
15	IVANPAH SEGS (BRIGHT SOURCE)		Solar Thermal with Steam	CEC & BLM	90	400.0	3,640	109.9
16	SOLAR ONE (CALICO SOLAR)		Hydrogen Stirling Engines	CEC & BLM	164	850.0	8,230	103.3
				TOTAL	**334**	**2,050.2**	**21,676**	**94.6**
				TOTAL (SOLAR ONLY)	**334**	**1,903.3**	**17,079**	**111.4**
				TOTAL (WIND ONLY)[1]	**n/a**	**146.9**	**4,597**	**32.0**

1. There is no significant full-time employment estimated for the photovoltaic and wind systems.

Source: Stanley R. Hoffman Associates, Inc.
San Bernardino County Land Use Services Department
San Bernardino County Fire Services Department

Table 4
Emergency Response Matrix Ratings by Solar Farm Project

Emergency Response Matrix																						
A. Response Criteria		**points**	**weighting factor**	**Kramer**	**Harper**	**Lucerne**	**Abengoa**	**Ivanpah**	**Solar 1**	**SolarTech**	**Solun**	**Strawbry**	**Boule KJ**	**LightSrc**	**Boule LV**	**RBT Spgs**	**Red Co**	**Axio JT**	**Axio EM**
1. Inspections			0.10																
	a. minimal need	1																	
	b. average need	3		3	3	3				1	1	1	1	1	1	1	1	1	1
	c. significant need	5					5	5	5										
2. Fire			next	0.45	0.45	0.30	0.45	0.75	0.75	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
A. Quantity stored on-site																			
	a. <1,000 gal	1	0.20			1		1		1	1	1	1	1	1	1	1	1	1
	b. >1000 and <100,000 gal	2																	
	c. >100,000 gal Thermind or High Volume High Pressure Hydrogen	5	next	5	5		5		5										
B. Fire/Explosion off-site consequences				0.60	0.45	0.30	0.45	0.75	0.75	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
	On site and off site consequence		0.30																
	a. Limited to site	1				1		1		1	1	1	1	1	1	1	1	1	1
	b. Potential for smoke and/or fire and/or	2																	
	blast effects	3			3				3										
	c. Potential for major fire/blast stucture damage	4																	
	and/or injuries/fatalities off-site and/or major hwy disruption/closure	5	next	5			5												
3. HazMat				0.75	0.60	0.45	0.75	1.25	1.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
A. Proximity to or potential for effect on all human receptors			0.05																
	a. no sig quant of hazmats or no potential for off-site impacts within 1/2 mile	1				1		1		1	1	1	1	1	1	1	1	1	1
	b. <10 receptors within 1/2 mile	2																	
	c. >10 receptors within 1/2 mile	3			3		4												
	d. >50 within 1/2 mile	4							5										
	e. >100	5	next	5															
B. Hazmat response time				0.75	0.60	0.45	0.60	1.00	1.00	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	a. <30 minutes	1			3	3	3	1		1	1	1	1	1	1	1	1	1	1
	b. 30 - 60 minutes	3		3					5										
	c. >60 minutes	5	next																
4. Rescue First Alarm				0.75	0.60	0.45	0.60	1.00	1.00	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	a. < 30 minutes	1	0.15	1						1	1	1	1	1	1	1	1	1	1
	b. 30 - 60 minutes	3			3	3	3												
	c. >60 minutes	5	next					5	5										
5. EMS Response of Certified Medic				0.75	0.60	0.45	0.45	0.75	0.75	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
EMS response time			0.15																
	a. No Staff on site	1								1	1	1	1	1	1	1	1	1	1
	b. <15 minute response time	2				2													
	c. >15 <30 minute response time	3			3		3												
	d. >30 and < 60 minute response time	4		4				5	5										
	e. >60 minute response time	5	next																
	Sum weighting factors		1.00	3.95	3.4	1.75	4.25	2.60	4.40	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
TOTAL SCORE			======>																
LOW Priority: additional resources and mitigation may be needed.			< or =1																
MEDIUM Priority: additional resources and mitigation needed.			1.0 - 2.5																
HIGH Priority: very significant need for additional resources and mitigation.			2.5 - 3.0																
VERY HIGH Priority: urgent need for additional resources and mitigation.			>3.0																
SOURCE: San Bernardino County Fire Department																			
California Energy Commission Staff.																			

Table 5
Summary of Solar Farm Project Characteristics by Sub-Area

	Morongo Basin	Outlying Desert	Victor Valley-Barstow	TOTAL
Proposed Energy Projects				
A. Number				
Photovoltaic	2	1	8	11
Solar Thermal - Steam	0	1	0	1
Solar Thermal - Hydrogen	0	1	0	1
Solar Thermal - Therminol	0	0	1	1
Total	2	3	9	14
B. Megawatts				
Photovoltaic	65	5	333	403
Solar Thermal - Steam	0	400	0	400
Solar Thermal - Hydrogen	0	850	0	850
Solar Thermal - Therminol	0	0	250	250
Total	65	1,255	583	1,903
C. Disturbed Acreage				
Photovoltaic	673	40	2,731	3,444
Solar Thermal - Steam	0	3,640	0	3,640
Solar Thermal - Hydrogen	0	8,230	0	8,230
Solar Thermal - Therminol	0	0	1,765	1,765
Total	673	11,910	4,496	17,079
B. Megawatts per 1000 Acres				
Photovoltaic	97	125	122	117
Solar Thermal - Steam	n/a	110	n/a	110
Solar Thermal - Hydrogen	n/a	103	n/a	103
Solar Thermal - Therminol	n/a	n/a	142	142
All Average	97	105	130	111

Source: Stanley R. Hoffman Associates, Inc.
San Bernardino County Fire Department
San Bernardino County Land Use Services Department.

Table 6
Estimated Capital Costs and Annual Operations and Maintenance Costs by Facility

STATION_NO	ECNSUBAREA	TYPE OF IMPROVEMENT	CAPITAL COSTS	ANNUAL OPERATIONS AND MAINTENANCE COSTS
PROPOSED STATIONS				
125 - HINKLEY STATION	VICTOR - BARSTOW	Proposed Upgrades	$0	$1,875,094
46 - HARVARD STATION	VICTOR - BARSTOW	Proposed Upgrades	$0	$1,875,094
53 - BAKER CSD STATION	OUTLYING DESERT AREA	Proposed Upgrades	$0	$1,875,094
MTN PASS	OUTLYING DESERT AREA	Proposed Facility	$4,688,636	$1,977,846
AMBOY	OUTLYING DESERT AREA	Proposed Facility	$3,162,183	$1,977,846
KRAMER	VICTOR - BARSTOW	Proposed Facility	$4,688,636	$1,977,846
			$12,539,455	$11,558,820
FUTURE STATIONS				
4 - SILVER LAKES / HELENDALE STATION	VICTOR - BARSTOW	Future Upgrades	0	$1,875,094
17 - BIG RIVER STATION	OUTLYING DESERT AREA	Future Upgrades	0	$1,875,094
31 - NEEDLES CITY STATION	OUTLYING DESERT AREA	Future Upgrades	0	$1,875,094
119 - WEST WONDER VALLEY STATION	MORONGO BASIN	Future Upgrades	0	$1,875,094
127 - NORTH TRONA STATION	OUTLYING DESERT AREA	Future Upgrades	0	$1,875,094
118 - HAVASU LANDING STATION	OUTLYING DESERT AREA	Future Upgrades	0	$1,875,094
111 - LUCERNE	VICTOR - BARSTOW	Future Upgrades	0	$1,875,094
19 - LANDERS	MORONGO BASIN	Future Upgrades	0	$1,875,094
GOFFS	OUTLYING DESERT AREA	Future Facility	$4,688,636	$1,977,846
VIDAL	OUTLYING DESERT AREA	Future Facility	$4,688,636	$1,977,846
KELSO	OUTLYING DESERT AREA	Future Facility	$4,688,636	$1,977,846
			$14,065,908	$20,934,290
		TOTAL	$26,605,363	$32,493,110

Source: Stanley R. Hoffman Associates, Inc.
San Bernardino County Fire Department

Table 7
County Fire Services Level of Service [1]: 2010
San Bernardino County Fire Department

	Mountain Division	North Desert Division	Victorville Division	South Desert Division	Valley Division	County Total	North and South Desert Divisions
Stations	8	20	8	17	15	68	37
Population Served	70,000	150,000	117,000	49,648	210,800	597,448	199,648
Square Miles	616	10,884	74	7,968	585	20,127	18,852
Population per Station	8,750	7,500	14,625	2,920	14,053	8,786	5,396
Sq Miles Served per Station	77	544	9	469	39	296	510

1. All information obtained from the San Bernardino County Fire Department.

Source: Stanley R. Hoffman Associates, Inc.
San Bernardino County Fire Department.

Table 8
Estimated Impact of Population Growth on Demand for Fire Services

	Outlying Desert	Victor-Valley Barstow	Morongo Basin	Desert Total
ESTIMATED 2008 to 2020 GROWTH [1]				
Population	202	7,760	1,495	9,457
Households	47	1,798	346	2,191
Employment	141	5,429	1,046	6,616
COST ALLOCATION TO POPULATION GROWTH				
Estimated Population Served per Station [2]	5,396	5,396	5,396	5,396
Projected Demand for Stations from Growth	0.04	1.44	0.28	1.75
Proposed New Stations [3]	2.00	1.00	0.00	3.00
Share of New Growth on Proposed Facilities				58.4%
Proposed New Station Facility Costs [3]	$7,850,819	$4,688,636	$0	$12,539,455
Cost Allocation to Population Growth				$7,325,673
Balance Costs to Proposed Projects				$5,213,782

1. Based on information provided by the San Bernardino County Land Use Services Department (LUSD) on projected General Plan growth by the three County General Plan Planning Areas -- Valley, Mountain and Desert. The growth projected for the Desert Planning Area was then allocated to the three Desert sub-regions -- Outlying Desert, Victor Valley/Barstow, and the Morongo Basin, based on historic housing permit trends.

2. The population served per station factor was developed from data on current level of services obtained from the County Fire Department for the North and South Desert Divisions.

3. Proposed new stations and their associated capital costs are shown in Table 4.

Source: Stanley R. Hoffman Associates, Inc.
San Bernardino County Fire Department
San Bernardino County Land Use Services Department

Table 9
Type of Service Calls by Geography: 2009
San Bernardino County

	Urban	Rural	Remote	Total	Rural and Remote	
Fire						
Residential	184	79	23	286	102	
Traffic	86	28	53	167	81	
Commercial	149	73	33	255	106	
Subtotal	419	180	109	708	289	
Medical/Other						
Residential	10,258	4,611	373	15,242	4,984	
Traffic	1,326	548	345	2,219	893	
Commercial	4,866	1,862	489	7,217	2,351	
Subtotal	16,450	7,021	1,207	24,678	8,228	
Total Calls	**16,869**	**7,201**	**1,316**	**25,386**	**8,517**	
Total Calls						
Residential	10,442	4,690	396	15,528	5,086	
Traffic	1,412	576	398	2,386	974	
Commercial	5,015	1,935	522	7,472	2,457	
	16,869	**7,201**	**1,316**	**25,386**	**8,517**	
Percent Distribution						Rounded
Residential	61.9%	65.1%	30.1%	61.2%	59.7%	60.0%
Traffic	8.4%	8.0%	30.2%	9.4%	11.4%	11.0%
Commercial	29.7%	26.9%	39.7%	29.4%	28.8%	29.0%
	100.0%	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Stanley R. Hoffman Associates, Inc.
San Bernardino County Fire Department

APPENDIX A
OVERVIEW OF SOLAR ENERGY TECHNOLOGIES[1]

Photovoltaic (PV) Systems

Photovoltaic systems produce clean, reliable energy through the conversion of sunlight directly into electricity via a process called the photovoltaic effect. PV systems are comprised of individual PV cells (also known as solar cells) made from semiconductor materials which are connected to form PV modules. PV modules generate direct current (DC) electricity, which is then passed through an inverter and converted into alternating current (AC) electricity. This energy can be used in a wide variety of residential and commercial applications, including utility power, lighting, communications, refrigeration, water purification, and crop irrigation.

Advantages of PV Systems

- PV systems require considerably less fire protection than thermal systems. As shown in Table 1, the 11 proposed PV projects in San Bernardino County were judged as a low to medium priority for emergency fire response, while the three thermal projects were judged as a very high priority for emergency fire response.
- Once built, PV systems have a much lower demand for on-site staff to perform operations and maintenance. This means fewer people at PV facilities, which lowers the demand for public services such as fire protection and emergency medical response.
- Unlike thermal systems, PV systems do not require water. This is particularly advantageous in the desert regions where many solar farms are proposed to be located.

Disadvantages of PV Systems

- PV systems are expensive to build. As a result, PV projects tend to be smaller and generate less electricity than thermal projects. For example, in San Bernardino County the most productive proposed PV project has an installed capacity of 104 megawatts (Rabbit Springs Solar), while the three proposed thermal projects have capacities ranging from 250 to 850 megawatts (see Table 1).

---

1 Sources:
U.S. Energy Information Administration <http://www.eia.doe.gov>
Solar Energy International <http://www.solarenergy.org>
Solar Developments <http://www.solardev.com>
SolarPACES <http://www.solarpaces.org>
The Energy Blog < http://thefraserdomain.typepad.com/energy/2005/09/about_parabolic.html >
Jones, J. (2000). "Solar Trough Power Plants." National Renewable Energy Laboratory.
The Center For Land Use Interpretation <http://www.clui.org/>

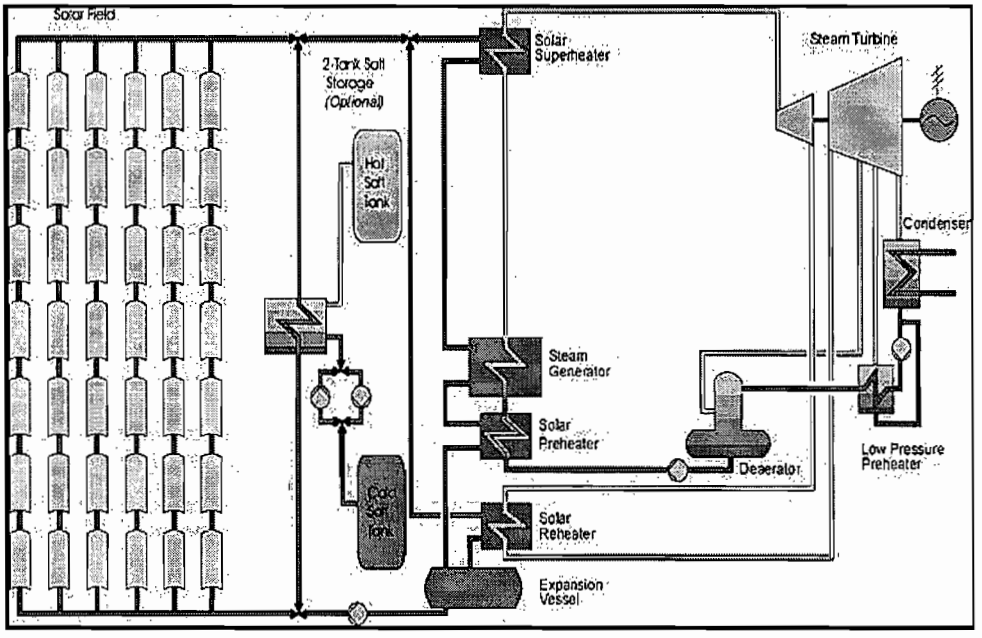
Thermal Systems

Thermal systems harness the sun's energy to heat transfer mediums, such as Therminol, to drive steam-turbine generating plants and produce energy. In the solar thermal hydrogen systems, the sun's energy causes the expansion and contraction of hydrogen to drive the turbine. The three main types of solar thermal systems are parabolic troughs, solar power towers, and dish systems. Each of these systems is represented in San Bernardino County. The Abengoa project uses parabolic trough technology; the Ivanpah project uses solar power tower technology; and the Solar One project uses dish systems technology.

Parabolic Trough

Illustrated in Figure A-1 is a parabolic trough solar thermal energy collector. A solar trough has a long, parabolic mirror that reflects sunlight onto a receiver tube located at the focus of the parabola. Heat transfer fluids such as Therminol run through the tube, absorb the concentrated sunlight, and then heat water to create steam. This steam is piped to an onsite turbine-generator to produce electricity, which is then transmitted over power lines. The solar trough can be rotated to track the sun as it moves throughout the day. On cloudy days, the plant has a supplementary natural gas boiler that can be used to heat the water, creating steam to generate electricity.

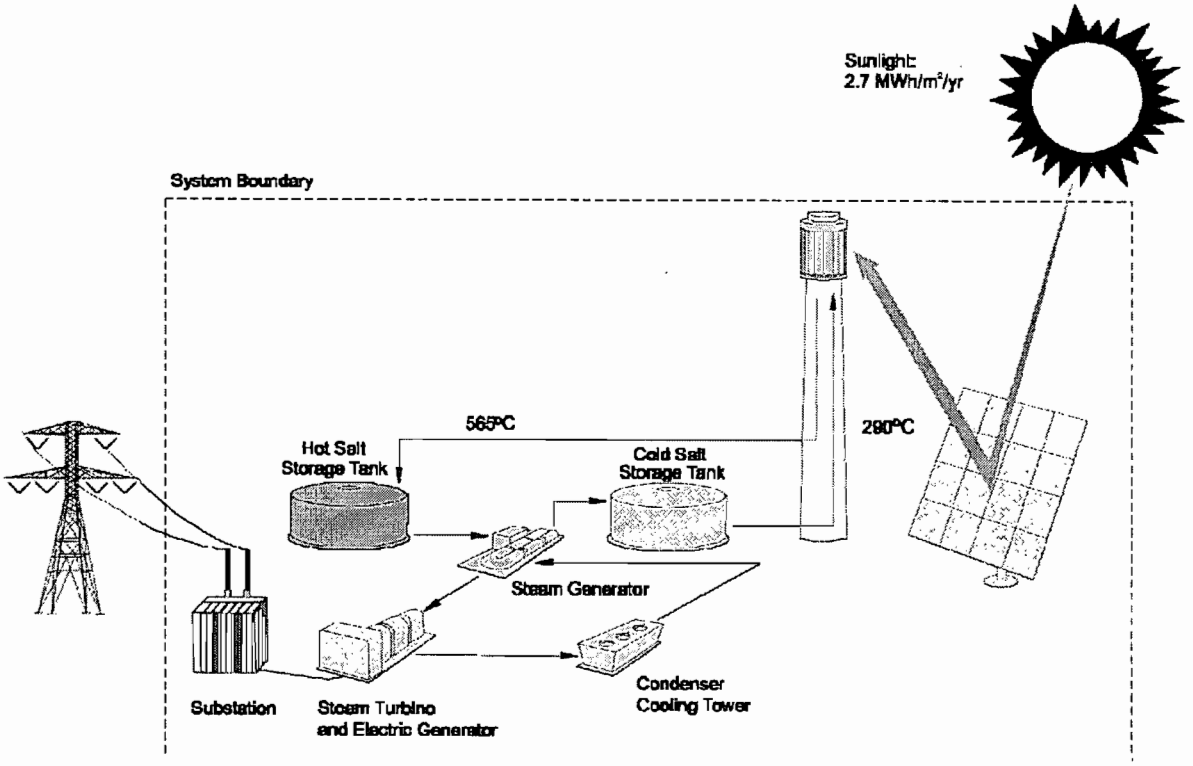
Figure A-1
Diagram of a Parabolic Trough



Solar Power Tower

As shown in Figure A-2, solar power towers are comprised of hundreds of large mirror assemblies, or heliostats, which track the sun and reflect solar energy onto a black tower-mounted boiler that absorbs the heat and converts water into high pressure steam. The high pressure steam is then carried to the ground where the steam is used to spin a series of turbines, much like a traditional power plant. Power towers must be large to be economical. This is a promising technology for large-scale, grid-connected power plants; however, it is in its early stages of development compared to parabolic trough technology.

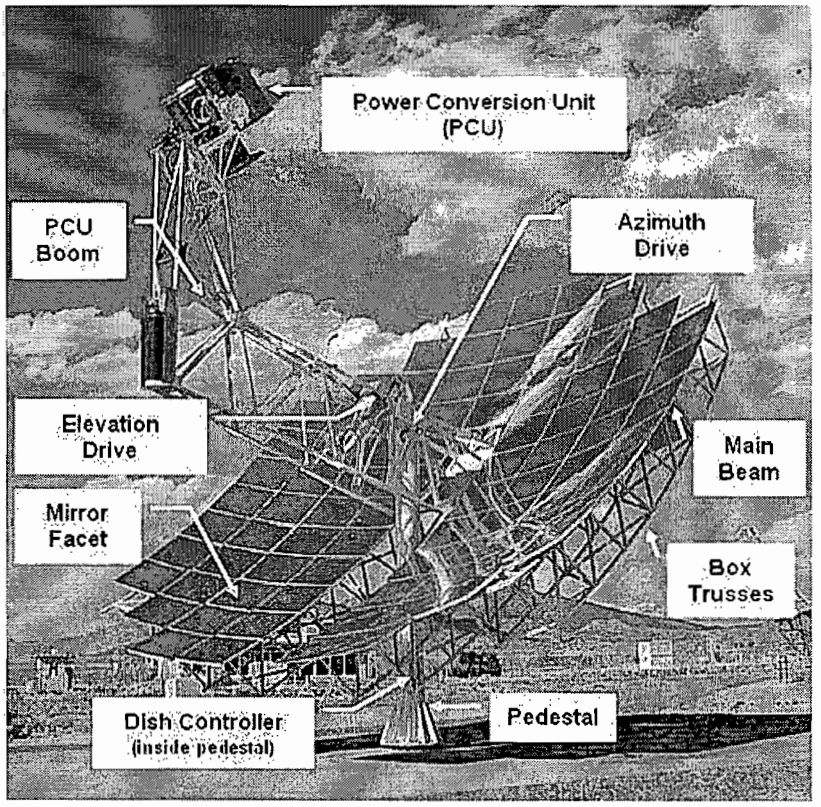
Figure A-2
Solar Power Tower System Schematic



Dish Systems

As shown in Figure A-3, a dish system consists of a large, parabolic dish (similar in shape to a satellite television dish) that reflects sunlight onto a receiver mounted at its center. The expansion and contraction of hydrogen is then used to power an engine. Typically, the receiver is mounted with a Stirling engine, although other types of engines are occasionally used. The engine is coupled with an electric generator that converts mechanical power into electricity. Dish systems can achieve high concentrations of light which result in higher temperatures and a more efficient conversion of solar energy to electricity.

Figure A-3: Dish System



Advantages of Thermal Systems

- Thermal systems produce more energy than PV systems. As shown previously in Table 1, in San Bernardino County the three thermal systems range from 250 to 850 megawatts, while the PV systems range from 1.3 to 104 megawatts.
- Solar thermal systems can work in the shade for brief amounts of time, since the heated fluids they depend on can stay hot enough to generate electricity for some time without the sun.

Disadvantages of Thermal Systems

- Thermal systems present a much higher fire risk than PV systems. As shown previously in Table 1, the San Bernardino County Fire Department and California Energy Commission jointly ranked the three thermal projects as very high priorities for emergency fire response, while the 11 PV projects were ranked as only low to moderate priorities.
- Unlike PV systems, thermal systems require on-site staff to perform operations and maintenance. Because individuals are required to work on-site, these systems require additional public services such as fire protection and emergency medical response.
- Thermal systems are larger and require more land than PV systems. As shown previously in Table 1, the three proposed thermal systems in San Bernardino County have disturbed acreages ranging from 1,765 acres to 8,230 acres, while the 11 proposed PV systems have disturbed acreages ranging from 12 acres to 922 acres.

EXB 330 - OSHA 2010a - Occupational Safety and Health Administration (TN 57384) Fire Fighters' Two-in/Two-out Regulation. Submitted to CEC on 6/29/2010.

Abengoa Mojave Solar 09-AFC-5

DOCKET
09-AFC-5
DATE JUN 29 2010
RECD. JUN 29 2010

Document Title: Occupational Safety and Health Administration – Fire Fighters' Two-in/Two-out Regulation

The attached regulation requires that interior structural fire fighting procedures provide for at least two fire fighters inside the structure. Two fire fighters inside the structure must have direct visual or voice contact between each other and direct, voice or radio contact with fire fighters outside the structure. This section has been dubbed the fire fighters' "two-in/two-out" regulation.

This regulation is being docked by CEC staff as a reference for Worker Safety and Fire Protection for the Abengoa Mojave Solar project.

United States Department of Labor
Occupational Safety and Health Administration
Fire Fighters' Two-in/Two-out Regulation

The federal Occupational Safety and Health Administration (OSHA) recently issued a revised standard regarding respiratory protection. Among other changes, the regulation now requires that interior structural fire fighting procedures provide for at least two fire fighters inside the structure. Two fire fighters inside the structure must have direct visual or voice contact between each other and direct, voice or radio contact with fire fighters outside the structure. This section has been dubbed the fire fighters' "two-in/two-out" regulation. The International Association of Fire Fighters and the International Association of Fire Chiefs are providing the following questions and answers to assist you in understanding the section of the regulation related to interior structural fire fighting.

1. What is the federal OSHA Respiratory Protection Standard?

In 1971, federal OSHA adopted a respiratory protection standard requiring employers to establish and maintain a respiratory protection program for their respirator-wearing employees. The revised standard strengthens some requirements and eliminates duplicative requirements in other OSHA health standards.

The standard specifically addresses the use of respirators in immediately dangerous to life or health (IDLH) atmospheres, including interior structural fire fighting. OSHA defines structures that are involved in fire beyond the incipient stage as IDLH atmospheres. In these atmospheres, OSHA requires that personnel use self-contained breathing apparatus (SCBA), that a minimum of two fire fighters work as a team inside the structure, and that a minimum of two fire fighters be on standby outside the structure to provide assistance or perform rescue.

2. Why is this standard important to fire fighters?

This standard, with its two-in/two-out provision, may be one of the most important safety advances for fire fighters in this decade. Too many fire fighters have died because of insufficient accountability and poor communications. The standard addresses both and leaves no doubt that two-in/two-out requirements must be followed for fire fighter safety and compliance with the law.

3. Which fire fighters are covered by the regulations?

The federal OSHA standard applies to all private sector workers engaged in fire fighting activities through industrial fire brigades, private incorporated fire companies (including the "employees" of incorporated volunteer companies and private fire departments contracting to public jurisdictions) and federal fire fighters. In 23 states and 2 territories, the state, not the federal government, has responsibility for enforcing worker health and safety regulations. These "state plan" states have earned the approval of federal OSHA to implement their own enforcement programs. These states must establish and maintain occupational safety and health programs for all public employees that are as effective as the programs for private sector employees. In addition, state safety and health regulations must be at least as stringent as federal OSHA regulations. Federal OSHA has no direct enforcement authority over state and local governments in states that do not have state OSHA plans.

All professional career fire fighters, whether state, county, or municipal, in any of the states or territories where an OSHA state plan agreement is in effect, have the protection of all federal OSHA health and safety standards, **including the new respirator standard and its requirements for fire fighting operations**. The following states have OSHA-approved plans and must enforce the two-in/two-out provision for all fire departments.

Alaska	Kentucky	North Carolina	Virginia
Arizona	Maryland	Oregon	Virgin Islands
California	Michigan	Puerto Rico	Washington
Connecticut	Minnesota	South Carolina	Wyoming
Hawaii	Nevada	Tennessee	
Indiana	New Mexico	Utah	
Iowa	New York	Vermont	

A number of other states have adopted, by reference, federal OSHA regulations for public employee fire fighters. These states include Florida, Illinois and Oklahoma. In these states, the regulations carry the force of state law.

Additionally, a number of states have adopted NFPA standards, including NFPA 1500, *Standard for Fire Department Occupational Safety and Health Program*. The 1997 edition of NFPA 1500 now includes requirements corresponding to OSHA's respiratory protection regulation. Since the NFPA is a private consensus standards organization, its recommendations are preempted by OSHA regulations that are more stringent. In other words, the OSHA regulations are the minimum requirement where they are legally applicable. There is nothing in federal regulations that "deem compliance" with any consensus standards, including NFPA standards, if the consensus standards are less stringent.

It is unfortunate that all U.S. and Canadian fire fighters are not covered by the OSHA respiratory protection standard. However, we must consider the two-in/two-out requirements to be the minimum acceptable standard for safe fire ground operations for <u>all</u> fire fighters when self-contained breathing apparatus is used.

4. When are two-in/two-out procedures required for fire fighters?

OSHA states that "once fire fighters begin the interior attack on an interior structural fire, the atmosphere is assumed to be IDLH and paragraph **29 CFR 1910.134(g)(4)** [two-in/two-out] applies." OSHA defines interior structural fire fighting "as the physical activity of fire suppression, rescue or both inside of buildings or enclosed structures which are involved in a fire situation beyond the incipient stage." OSHA further defines an incipient stage fire in **29 CFR 1910.155(c)(26)** as a "fire which is in the initial or beginning stage and which can be controlled or extinguished by portable fire extinguishers, Class II standpipe or small hose systems without the need for protective clothing or breathing apparatus." Any structural fire beyond incipient stage is considered to be an IDLH atmosphere by OSHA.

5. What respiratory protection is required for interior structural fire fighting?

OSHA requires that all fire fighters engaged in interior structural fire fighting must wear SCBAs. SCBAs must be NIOSH-certified, positive pressure, with a minimum duration of 30 minutes. **[29 CFR 1910.156(f)(1)(ii)]** and **[29 CFR 1910.134(g)(4)(iii)]**

6. Are all fire fighters performing interior structural fire fighting operations required to operate in a buddy system with two or more personnel?

Yes. OSHA clearly requires that all workers engaged in interior structural fire fighting operations beyond the incipient stage use SCBA and work in teams of two or more. **[29 CFR 1910.134(g)(4)(i)]**

7. Are fire fighters in the interior of the structure required to be in direct contact with one another?

Yes. Fire fighters operating in the interior of the structure must operate in a buddy system and maintain voice or visual contact with one another at all times. This assists in assuring accountability within the team. **[29 CFR 1910.134(g)(4)(i)]**

8. Can radios or other means of electronic contact be substituted for visual or voice contact, allowing fire fighters in an interior structural fire to separate from their "buddy" or "buddies"?

No. Due to the potential of mechanical failure or reception failure of electronic communication devices, radio contact is not acceptable to replace visual or voice contact between the members of the "buddy system" team. Also, the individual needing rescue may not be physically able to operate an electronic device to alert other members of the interior team that assistance is needed.

Radios can and should be used for communications on the fire ground, including communications between the interior fire fighter team(s) and exterior fire fighters. They cannot, however, be the sole tool for accounting for one's partner in the interior of a structural fire. **[29 CFR 1910.134(g)(4)(i)] [29 CFR 1910.134(g)(3)(ii)]**

9. Are fire fighters required to be present outside the structural fire prior to a team entering and during the team's work in the hazard area?

Yes. OSHA requires at least one team of two or more properly equipped and trained fire fighters be present outside the structure before any team(s) of fire fighters enter the structural fire. This requirement is intended to assure that the team outside the structure has the training, clothing and equipment to protect themselves and, if necessary, safely and effectively rescue fire fighters inside the structure. For high-rise operations, the team(s) would be staged below the IDLH atmosphere. **[29 CFR 1910.134(g)(3)(iii)]**

10. Do these regulations mean that, at a minimum, four individuals are required, that is, two individuals working as a team in the interior of the structural fire and two individuals outside the structure for assistance or rescue?

Yes. OSHA requires that a minimum of two individuals, operating as a team in direct voice or visual contact, conduct interior fire fighting operations utilizing SCBA. In addition, a minimum of two individuals who are properly equipped and trained must be positioned outside the IDLH atmosphere, account for the interior team(s) and remain capable of rapid rescue of the interior team. The outside personnel must at all times account for and be available to assist or rescue members of the interior team. **[29 CFR 1910.134(g)(4)]**

11. Does OSHA permit the two individuals outside the hazard area to be engaged in other activities, such as incident command or fire apparatus operation (for example, pump or aerial operators)?

OSHA requires that one of the two outside person's function is to account for and, if necessary, initiate a fire fighter rescue. Aside from this individual dedicated to tracking interior personnel, the other designated person(s) is permitted to take on other roles, such as incident commander in charge of the emergency incident, safety officer or equipment operator. However, the other designated outside person(s) cannot be assigned tasks that are critical to the safety and health of any other employee working at the incident.

Any task that the outside fire fighter(s) performs while in standby rescue status must not interfere with the responsibility to account for those individuals in the hazard area. Any task, evolution, duty, or function being performed by the standby individual(s) must be such that the work can be abandoned, without placing any employee at additional risk, if rescue or other assistance is needed. **[29 CFR 1910.134(g)(4)(Note 1)]**

12. If a rescue operation is necessary, must the buddy system be maintained while entering the interior structural fire?

Yes. Any entry into an interior structural fire beyond the incipient stage, regardless of the reason, must be made in teams of two or more individuals. **[29 CFR 1910.134(g)(4)(i)]**

*13. Do the regulations require two individuals outside for **each** team of individuals operating in the interior of a structural fire?*

The regulations do not require a separate "two-out" team for each team operating in the structure. However, if the incident escalates, if accountability cannot be properly maintained from a single exposure, or if rapid rescue becomes infeasible, additional outside crews must be added. For example, if the involved structure is large enough to require entry at different locations or levels, additional "two-out" teams would be required. **[29 CFR 1910.134(g)(4)]**

14. If four fire fighters are on the scene of an interior structural fire, is it permissible to enter the structure with a team of two?

OSHA's respiratory protection standard is not about counting heads. Rather, it dictates functions of fire fighters prior to an interior attack. The entry team must consist of at least two individuals. Of the two fire fighters outside, one must perform accountability functions and be immediately available for fire fighter rescue. As explained above, the other may perform other tasks, as long as those tasks do not interfere with the accountability functions and can be abandoned to perform fire fighter rescue. Depending on the operating procedures of the fire department, more than four individuals may be required. **[29 CFR 1910.134(g)(4)(i)]**

15. Does OSHA recognize any exceptions to this regulation?

OSHA regulations recognize deviations to regulations in an emergency operation where immediate action is necessary to save a life. For fire department employers, initial attack operations must be organized to ensure that adequate personnel are at the emergency scene prior to any interior attack at a structural fire. If initial attack personnel find a **known** life-hazard situation where immediate action could prevent the loss of life, deviation from the two-in/two-out standard may be permitted, as an exception to the fire department's organizational plan.

However, such deviations from the regulations must be **exceptions** and not defacto standard practices. In fact, OSHA may still issue "de minimis" citations for such deviations from the standard, meaning that the citation will not require monetary penalties or corrective action. The exception is for a known life rescue only, not for standard search and rescue activities. When the exception becomes the practice, OSHA citations are authorized. **[29 CFR 1910.134(g)(4)(Note 2)]**

16. Does OSHA require employer notification prior to any rescue by the outside personnel?

Yes. OSHA requires the fire department or fire department designee (i.e. incident commander) be notified prior to any rescue of fire fighters operating in an IDLH atmosphere. The fire department would have to provide any additional assistance appropriate to the emergency, including the notification of on-scene personnel and incoming units. Additionally, any such actions taken in accordance with the "exception" provision should be thoroughly investigated by the fire department with a written report submitted to the Fire Chief. **[29 CFR 1910.134(g)(3)(iv)]**

17. How do the regulations affect fire fighters entering a hazardous environment that is not an interior structural fire?

Fire fighters must adhere to the two-in/two-out regulations for other emergency response operations in any IDLH, potential IDLH, or unknown atmosphere. OSHA permits one standby person **only** in those IDLH environments in fixed workplaces, not fire emergency situations. Such sites, in normal operating conditions, contain only hazards that are known, well characterized, and well controlled. **[29 CFR 1910.120(q)(3)(vi)]**

18. When is the new regulation effective?

The revised OSHA respiratory protection standard was released by the Department of Labor and published in the Federal Register on January 8, 1998. It is effective on April 8, 1998.

"State Plan" states have six months from the release date to implement and enforce the new regulations.

Until the April 8 effective date, earlier requirements for two-in/two-out are in effect. The formal interpretation and compliance memo issued by James W. Stanley, Deputy Assistant Secretary of Labor, on May 1, 1995 and the compliance memo issued by Assistant Secretary of Labor Joe Dear on July 30, 1996 establish that OSHA interprets the earlier 1971 regulation as requiring two-in/two-out. **[29 CFR 1910.134(n)(1)]**

19. How does a fire department demonstrate compliance with the regulations?

Fire departments must develop and implement standard operating procedures addressing fire ground operations and the two-in/two-out procedures to demonstrate compliance. Fire department training programs must ensure that fire fighters understand and implement appropriate two-in/two-out procedures. **[29 CFR 1910.134(c)]**

20. What can be done if the fire department does not comply?

Federal OSHA and approved state plan states must ".. assure so far as possible every working man and woman in the Nation safe and healthful working conditions." To ensure such protection, federal OSHA and states with approved state plans are authorized to enforce safety and health standards. These agencies must investigate complaints and conduct inspections to make sure that specific standards are met and that the workplace is generally free from recognized hazards likely to cause death or serious physical harm.

Federal OSHA and state occupational safety and health agencies must investigate written complaints signed by current employees or their representatives regarding hazards that threaten serious physical harm to workers. By law, federal and state OSHA agencies do not reveal the name of the person filing the complaint, if he or she so requests. Complaints regarding imminent danger are investigated even if they are unsigned or anonymous. For all other complaints (from other than a current employee, or unsigned, or anonymous), the agency may send a letter to the employer describing the complaint and requesting a response. It is important that an OSHA (either federal or state) complaint be in writing.

When an OSHA inspector arrives, he or she displays official credentials and asks to see the employer. The inspector explains the nature of the visit, the scope of the inspection and applicable standards. A copy of any employee complaint (edited, if requested, to conceal the employee's identity) is available to the employer. An employer representative may accompany the inspector during the inspection. An authorized representative of the employees, if any, also has the right to participate in the inspection. The inspector may review records, collect information and view work sites. The inspector may also interview employees in private for additional information. Federal law prohibits discrimination in any form by employers against workers because of anything that workers say or show the inspector during the inspection or for any other OSHA protected safety-related activity.

Investigations of imminent danger situations have top priority. An imminent danger is a hazard that could cause death or serious physical harm immediately, or before the danger can be eliminated through normal enforcement procedures. Because of the hazardous and unpredictable nature of the fire ground, a fire department's failure to comply with the two-in/two-out requirements creates an imminent danger and the agency receiving a related complaint must provide an immediate response. If inspectors find imminent danger conditions, they will ask for immediate voluntary correction of the hazard by the employer or removal of endangered employees from the area. If an employer fails to do so, federal OSHA can go to federal district court to force the employer to comply. State occupational safety and health agencies rely on state courts for similar authority.

Federal and state OSHA agencies are required by law to issue citations for violations of safety and health standards. The agencies are not permitted to issue warnings. Citations include a description of the violation, the proposed penalty (if any), and the date by which the hazard must be corrected. Citations must be posted in the workplace to inform employees about the violation and the corrective action. **[29 CFR 1903.3(a)]**

It is important for labor and management to know that this regulation can also be used as evidence of industry standards and feasibility in arbitration and grievance hearings on fire fighter safety, as well as in other civil or criminal legal proceedings involving injury or death where the cause can be attributed to employer failure to implement two-in/two-out procedures. Regardless of OSHA's enforcement authority, this federal regulation links fire ground operations with fire fighter safety.

21. What can be done if a fire fighter does not comply with fire department operating procedures for two-in/two-out?

Fire departments must amend any existing policies and operational procedures to address the two-in/two-out regulations and develop clear protocols and reporting procedures for deviations from these fire department policies and procedures . Any individual violating this safety regulation should face appropriate departmental action.

22. How can I obtain additional information regarding the OSHA respirator standard and the two-in/two-out provision?

Affiliates of the International Association of Fire Fighters may contact:

International Association of Fire Fighters
Department of Occupational Health and Safety
1750 New York Avenue, NW
Washington, DC 20006
202-737-8484
202-737-8418 (FAX)

Members of the International Association of Fire Chiefs may contact:

International Association of Fire Chiefs
4025 Fair Ridge Drive
Fairfax, VA 22033-2868
703-273-0911
703-273-9363 (FAX)

EXB 331 - ROC between Battalion Chief Mike Weis, San Bernardino County Fire Department, and Shon Greenberg (January 5, 2010)

Telephone Conversation Record

To:	Battalion Chief Mike Weis San Bernardino County Fire Department
From:	Shon Greenberg Risk Science Associates
Phone Number:	(760) 246-3331
Date:	January 5, 2010. 9:15am
Regarding:	Abengoa Mojave Solar Project

I described the project to Chief Weis and asked him to confirm the information provided in the AFC regarding nearby stations. He corrected me that station #25 in Hinkley is actually station #125, and noted that it is staffed with paid on-call firefighters. This means that their response time could be as little as 15 minutes, but if they are not available or on vacation then that station would not respond. The next closest SBCFD station is #4 in Helendale, on the corner of Vista and Helendale Rd. That station is staffed full time with 4 personnel and would respond within 20-30 minutes. Also, the Barstow fire department would respond through a mutual aid agreement.

All firefighters at the SBCFD are trained to at least EMT-1 and as first responders for hazardous materials incidents. The large majority (~95%) are also trained paramedics. The SBCFD has a fully equipped hazmat unit stationed at Station #322 in Adelanto, about 50 miles from the site. Chief Weis estimated that their response time would be about 45 minutes.

The SBCFD uses the 2007 California Fire code.

I asked Chief Weis if this proposed project would impact their ability to serve their jurisdiction. He replied that if a large incident occurred at this facility, they would move resources around, use additional county resources and mutual aid agreements, but there will be an impact. I asked him for the reason he thinks there would be an impact, and he replied that they have limited resources in that area in terms of staffing and equipment and a large incident at a power plant can definitely impact their ability to respond to other calls.

EXB 332 - ROC between Peter Brierty, Assistant Chief/Fire Marshal, San Bernardino County Fire Department, and Alvin Greenberg (June 15, 2010)

California Energy Commission
Energy Facilities Siting &
Environmental Protection Division
REPORT OF CONVERSATION

File: **09-AFC-5**

Project Title: Abengoa Mojave Solar

(x) TELEPHONE() MEETING LOCATION:

NAME: Alvin Greenberg Risk Science Associates	**TIME:** 1:07 pm	**DATE:** June 15, 2010
WITH: Peter Brierty, Assistant Chief/Fire Marshal San Bernardino County Fire Department 157 W. 5th St., 2nd Floor San Bernardino, CA 92415-0451	**PHONE** (909) 936-5533 Office	
ADDRESS:		

SUBJECT: Abengoa Mojave Solar Power Plant – fire protection

COMMENTS:

Assistant Chief/Fire Marshal Peter Brierty of the San Bernardino County Fire Department called me to discuss my earlier e-mail to him asking him to confirm my understanding of the costs involved in building and staffing a new fire station as mitigation for the impacts caused by the AMS power plant. My e-mail to him was based on a spreadsheet Chief Brierty had sent to me earlier and reads as follows:

"Looks like if you place a new station at Kramer Junction, it would cost ~4.7 M to build and equip with one engine and annual O&M for (3 or 9?) fire fighters would be $2.0 M. If you allocated 1/3 of the costs to Abengoa to mitigate its incremental direct and cumulative impact, that would be an initial payment of $1.4M and annual payments of $667K. Is this what you have in mind?

I am not sure the applicant would go along with that amount. Are there other facilities or new developments in the area that a new a station at Kramer junction would serve so as to reduce the incremental cost to AMS?"

Chief Brierty replied that this fire station and staffing levels of nine (9) fire fighters (FF Paramedic, Engineer, Captain for 3 shifts) were needed and in his opinion, allocating 1/3 of the costs to the AMS project was fair.

COPIES TO:	**NAME: Alvin Greenberg (Craig Hoffman for)** **SIGNATURE:**