

Russell City Energy Company, LLC

717 Texas Avenue
Suite 1000
Houston, TX 77002

September 29, 2011

Minane Jameson
Hayward Area Recreation and Park District
1099 E Street
Hayward, CA 94541

Re: Russell City Energy Center

DOCKET

01-AFC-7C

DATE SEP 29 2011

RECD. NOV 03 2011

Dear Ms. Jameson:

Thank you for meeting with us last week about the Russell City Energy Center. In an effort to be responsive to your questions and concerns we have included the following information:

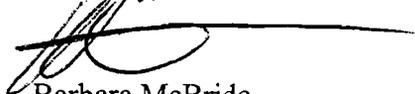
- The California Energy Commission (“CEC”) Conditions of Certification TRANS -10, VIS-4 and VIS-11 which were discussed at our meeting.
- The CEC Submittal for Condition of Certification TRANS – 10 which is the “Aviation Warning Lighting Plan for RCEC”. This plan was submitted on June 15, 2010 and approved by the CEC on June 23, 2010.
- The CEC Submittal for Vis-11 which is the “Construction Lighting Plan”. This plan was submitted to the CEC on June 15, 2010 and approved by the CEC on June 21, 2010.

In addition, a full copy of the 2007 California Energy Commission Decision for the Russell City Energy Center, Amendment No. 1 and the subsequent Amendment that was approved in August 2010 was delivered to your offices.

We appreciate your willingness to discuss these issues with us and look forward to your Board’s approval of the agreement to fund the design and installation of the trail side amenities for the Hayward Regional Shoreline as required by CEC Condition of Certification VIS - 9.

If you have any additional question, please do not hesitate to call me at 925-570-0849.

Sincerely,



Barbara McBride
Calpine Corporation
Director, Environmental Health and Safety

Cc: Mary Dyas, CEC

Dennis Waespi, Hayward Area Recreation and Park District Board

Rita Shue, Hayward Area Recreation and Park District

Verification: At least 30 days prior to operation of the RCEC plant, the project owner shall submit to the CPM, written verification from the City of Hayward that construction of Enterprise Avenue along the project frontage has been completed in accordance with the City of Hayward's standards.

TRANS-5 Deleted.

TRANS-6 The project owner shall resurface Enterprise Avenue and Clawiter Road, if damage is caused by construction traffic. The degree of rehabilitation is dependent on a condition inspection by the City Engineer after completion of the RCEC project.

Verification: At least 30 days prior to project site mobilization, the project owner shall submit to the CPM a letter agreeing to resurface Enterprise Avenue, if in the opinion of the City of Hayward City Engineer, damage to the asphalt overlay is caused by heavy equipment used in the construction of the RCEC. If required, the project owner shall resurface Enterprise Avenue and Clawiter Road in accordance with City of Hayward standards.

TRANS-7 Deleted.

TRANS-8 Deleted.

TRANS-9 The project owner or its contractor shall comply with the City of Hayward Planning Department limitations for encroachment into public rights-of-way and shall obtain necessary encroachment permits from the City of Hayward Public Works Department.

Verification: In the Monthly Compliance Reports, the project owner shall submit copies of any encroachment permits received during that month's reporting period to the Compliance Project Manager (CPM). In addition, the project owner shall retain copies of these permits and supporting documentation in its compliance file for at least six months after the start of commercial operation.

TRANS-10 The project owner shall ensure that the following mitigation measures are implemented to discourage pilots from flying over or in the proximity to the RCEC. These would include:

1. Request that a Notice to Airman (NOTAM), Category D, be issued advising pilots of the location of the RCEC and maintained in active status until all navigation charts and the Airport Facilities Directory (AFD) have been updated;
2. Request that the Hayward Executive Airport Air Traffic Control Tower (ATCT) coordinate with the Northern California Terminal Radar Approach Control to ensure that local missed approach instructions preclude the vectoring of aircraft over the RCEC;

3. Request that the FAA insert a power plant depiction symbol at the RCEC site location on the San Francisco VFR Terminal Area Chart (scale: 1:250,000);
4. Request that the Hayward ATCT add a new remark to the Automatic Terminal Information Service (ATIS) advising pilots of the location of the RCEC and to avoid overflight below 1,000 feet;
5. Deleted.
6. Request that the Hayward Executive Airport submit aerodrome remarks describing the general location of the RCEC plant and advising against direct overflight of the RCEC plant to:
 - the FAA National Aeronautical Charting Office (Airport/Facility Directory, Southwest United States);
 - Jeppesen Sanderson Inc. (JeppGuide Airport Directory, Western Region); and
 - Airguide Publications (Flight Guide, Western States);
7. Modify the Hayward Executive Airport “fly friendly” pilot guides at the project owner’s expense to include: a graphical/pictorial depiction of the RCEC site, bearing and distance to the site from airport center and the OAKLAND VORTAC, latitude and longitude of the RCEC center point and the recommendation to avoid overflight of the site below 1,000 feet to avoid potentially unstable flight conditions;
8. Install obstruction lighting and marking on each RCEC exhaust stack and cooling tower. Reference FAA Advisory Circular 70/7460-1 for guidance. Install lighting at each corner of the facility fence line that would be visible to an aircraft in flight, to be operated 24 hours a day, 7 days a week; and
9. Provide the Hayward Executive Airport and the Metropolitan Oakland International Airport Air Traffic Control Towers written notice at least 10 days in advance of the first test or commissioning procedure that would produce a thermal plume, provide verbal notification 2 hours in advance of any subsequent test or commissioning procedure, and 10 days written notice prior to the start of commercial operations.

Verification: At least sixty days prior to the start of construction, the project owner shall submit to the CPM for approval final design plans for the power plant that depict the required air traffic hazard lighting. The lighting shall be inspected

The project owner shall provide a status report regarding treatment maintenance in the Annual Compliance Report.

VIS-4 Prior to first turbine roll, the project owner shall design and install all permanent lighting such that a) light bulbs and reflectors are not visible from public viewing areas, b) lighting does not cause reflected glare, and c) illumination of the project, the vicinity, and the nighttime sky is minimized. To meet these requirements the project owner shall ensure that:

- 1) Lighting is designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of this outdoor lighting shall be such that the luminescence or light source is shielded to prevent light trespass outside the project boundary;
- 2) Non-glare light fixtures shall be specified;
- 3) All lighting shall be of minimum necessary brightness consistent with worker safety;
- 4) High illumination areas not occupied on a continuous basis (such as maintenance platforms) shall have switches or motion detectors to light the area only when occupied;
- 5) Parking lot lighting shall be provided in accordance with the City of Hayward Security Standards Ordinance; and
- 6) A lighting complaint resolution form (following the general format of that in Appendix VR-3) shall be used by plant operations, to record all lighting complaints received and to document the resolution of those complaints. All records of lighting complaints shall be kept in the onsite compliance file.

The project owner shall notify the CPM when the lighting has been installed. If after inspecting the lighting the CPM notifies the project owner that modifications to the lighting are needed to minimize impacts, the project owner shall perform the necessary modifications.

Verification: Prior to the first turbine roll, the project owner shall notify the CPM that the lighting is ready for inspection. If the CPM notifies the project owner that modifications to the lighting are needed, within thirty days of receiving that notification the project owner shall implement the modifications.

VIS-5 All fences and walls (including sound walls) for the project shall be non-reflective and treated in appropriate colors or hues that minimize visual

notification, the project owner shall prepare and submit to the CPM a revised submittal.

The project owner shall notify the CPM within seven days after completing installation of the landscape screening that the planting and irrigation system are ready for inspection.

The project owner shall report landscape maintenance activities, including replacement of dead vegetation, for the previous year of operation in the Annual Compliance Report.

VIS-11 The project owner shall ensure that lighting for construction of the power plant is used in a manner that minimizes potential night lighting impacts, as follows:

- 1) All lighting shall be of minimum necessary brightness consistent with worker safety.
- 2) All fixed position lighting shall be shielded, hooded, and directed downward to minimize backscatter to the night sky and direct light trespass (direct lighting extending outside the boundaries of the construction area).
- 3) Wherever feasible and safe, lighting shall be kept off when not in use and motion detectors shall be employed.
- 4) A lighting complaint resolution form (following the general format of that in Appendix VR-3, of the Amendment No. 1 Staff Assessment shall be maintained by plant construction management, to record all lighting complaints received and to document the resolution of that complaint.

Verification: At least 30 (thirty) days prior to the start of ground disturbance, the project owner shall provide to the CPM documentation demonstrating that the lighting would comply with the condition.

If the CPM notifies the project owner that modifications to the lighting are needed, within 30 (thirty) days of receiving that notification the project owner shall implement the necessary modifications and notify the CPM that the modifications have been completed.

The project owner shall report any lighting complaints and documentation of resolution in the Monthly Compliance Report, accompanied by any lighting complaint resolution forms for that month.



Document No.
25483-000-GPE- GCX -00001

TRANS-10
Aviation Warning Lighting Plan
for
Russell City Energy Center
(RCEC)

Rev.	Date	Reason for Revision	By	Checked	Approvals	
					SM	PM
0	6/10/10	Issued for Submittal	BTR	KC	KK	DG
1	6/14/10	Issued for Submittal	<i>BTR</i>	<i>KC</i>	<i>KK</i>	<i>BDM</i>

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Attachment: "Site Aviation Lighting Plan"

1.0 PURPOSE

The Russell City Energy Center (RCEC) project will be provided with aviation warning lighting in accordance with the California Energy Commission (CEC) Decision to grant a license to Russell City Energy Company, LLC, under Condition of Certification (COC) TRANS-10, Item 8.

2.0 SCOPE

The Aviation Warning Lighting System Plan will address the following as required by COC TRANS-10, Item 8:

"Install obstruction lighting and marking on each RCEC exhaust stack and cooling tower. Reference FAA Advisory Circular 70/7460-1 for guidance. Install lighting at each corner of the facility fence line that would be visible to an aircraft in flight, to be operated 24 hours a day, 7 days a week".

3.0 DEFINITIONS

Facility or Project Site - means that area of the Property on which the Project will be built. The Project Site includes all of the land bounded by the fence as shown on Figure 1.

HRSG – the Heat recovery Steam Generator, or boiler, which is used to produce steam for the plant's steam turbine.

Stack – an 18 foot diameter steel cylinder [chimney] which releases the HRSG exhaust gases to atmosphere. This is 145 feet tall; with the top most part located 155 feet above mean sea level.

Cooling Tower – a mechanical draft tower of 9 cells or sections, each cell having a motor driven fan to provide upward air flow which evaporates the water in the tower to cool the plant.

4.0 REFERENCES

- 4.1 The California Energy Commission (CEC) Final Decision dated October 2007, Conditions of Certification, TRANS-10.
- 4.2 FAA Advisory Circular 70/7460-1K, dated 2/1/2007, "Obstruction Marking and Lighting".
- 4.3 FAA Specification for "Obstruction Lighting Equipment", AC 150/5345-43.
- 4.4 FAA Advisory Circular 70/7460-2K, dated 3/1/2000, "Proposed Construction or Alteration of Objects that May Affect the Navigable Airspace". This Advisory has subsequently been CANCELED.

5.0 DESIGN BASIS

- 5.1 The lighting system is in accordance with Advisory Article 20, where lighting and marking for structures below 200 feet can be recommended due to the particular location, in this case near the Hayward Executive Airport, and in accordance with the CEC COC TRANS-10, Item 8 condition.
- 5.2 The lighting system is provided in accordance with Advisory Article 42.d, where for structures lighted with a Dual lighting system "other methods of marking the structure may be omitted".
- 5.3 The lighting system is provided in accordance with Advisory Article 42.f, where for obstruction lighting "in an urban area where there are numerous other white lights (e.g., streetlights, etc.), red obstruction lights with painting, or a medium intensity dual system is recommended".
- 5.4 A Dual Lighting System in accordance with Advisory Chapter 8, consisting of red flashing for night time (type L-864) and medium intensity white flashing (type L-865) for day time and twilight use lights will be the basis for the warning system. In accordance with Article 80 this system will minimize environmental concerns in populated areas.
- 5.5 The equipment will be in accordance with FAA Specification for Obstruction Lighting Equipment, AC 150/5345-43.
- 5.6 The HRSG stacks will each include a Dual Lighting System, with lights spaced at 120 degree intervals around the perimeter, located within 10 feet of the top.
- 5.7 The Cooling Tower will include a Dual Lighting System, with a light located on the long axis at each end, placed on a pole which will elevate it to the height of the exhaust plenum stack.
- 5.8 The Facility or Plant Site will include a Dual Lighting System at the 4 corners of the site placed on 20 foot poles, to elevate them above ground level. The lights will be hooded with an upward 120 degree reflector to shield the light from visibility at ground level. These lights will only be visible from aircraft flying near or over the site.



Document No.
25483-000-30G-H07G-00004

VIS-11 Construction Lighting Plan for Russell City Energy Center (RCEC)

Rev.	Date	Reason for Revision	By	Checked	Approvals	
					SM	PM
000	4/19/10	Issued for Preconstruction Submittal	KJK	MAG	KJK	

CONSTRUCTION LIGHTING PLAN FOR RUSSELL CITY ENERGY CENTER

1.0 INTRODUCTION

The Russell City Energy Center (RCEC) project will be built in accordance with California Energy Commission (CEC) Decision to grant a license to Russell City Energy Company, LLC. The CEC Decision includes an analysis of alternatives and mitigation measures to minimize any significant adverse effect the project may have on the environment. From this analysis certain Conditions of Certification are identified. The purpose of this VIS-11 plan is to ensure that lighting for construction of the power plant is used in a manner that minimizes potential night lighting impacts.

2.0 DESIGN CRITERIA

The construction lighting plan will be developed as part of the temporary facilities plan which includes lighting, fencing, security, construction power, gray and potable water, office trailers, change rooms and sanitary facilities. The plant construction manager will analyze the needs and develop a plan to provide the temporary facilities. All temporary facilities are designed and constructed in compliance with all local and federal codes and standards.

Construction lighting is planned to be temporary and will normally be designed to be portable. Some semi-permanent limited night time access lighting around the site is planned to facilitate safe movement of workers and material, when and where work is planned, and for security personnel at all other times. As such, the lighting for night time work activities will move to locations where it is required. In general, work requiring night time lighting will be in and around permanent plant equipment as shown on the plant Plot Plan drawing, which are mostly well within the site perimeter fence.

The construction lighting plan will address the following three areas:

- 1) All lighting shall be of minimum necessary brightness consistent with worker safety.
- 2) All fixed position lighting shall be shielded, hooded, and directed downward to minimize backscatter to the night sky and direct light trespass (direct lighting extending outside the boundaries of the construction area).
- 3) Wherever feasible and safe, lighting shall be kept off when not in use and motion detectors shall be employed.

3.0 DESIGN DELIVERABLES

In order to document that the construction lighting plan is in compliance with the condition prior to the start of ground disturbance a general arrangement drawing, 25483-000-ELK-0000-00001 Construction Facilities Temporary Lighting Plan is submitted for approval (Attachment A)

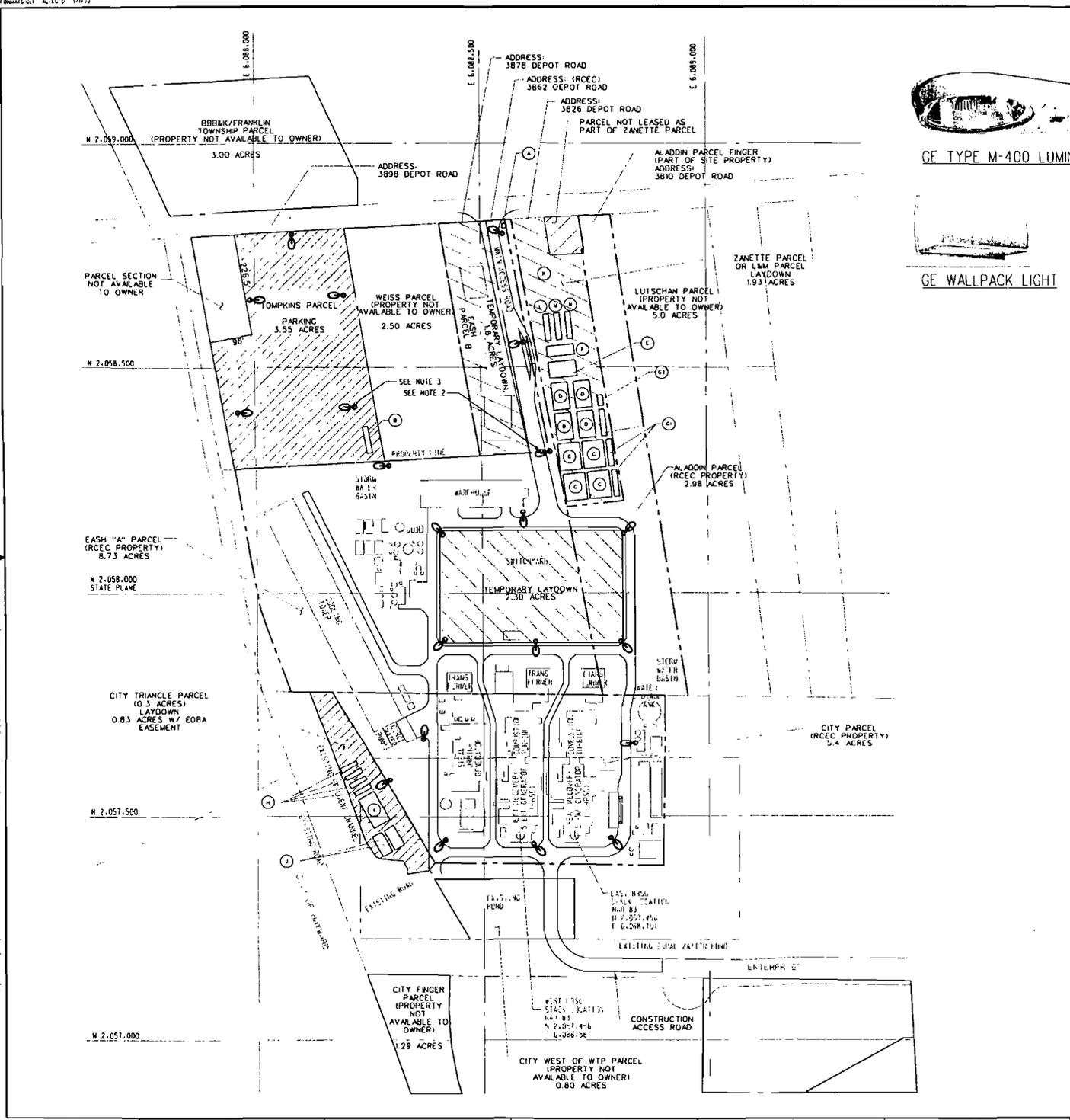
4.0 LIGHTING COMPLAINT RESOLUTION

A lighting complaint resolution form will be maintained by plant construction management and included in the Monthly Compliance Report submitted to the CEC. The initial complaint and the results of the resolution of the complaint will be documented in the report. The form will follow the general format of that in Appendix VR-3, of the Amendment No.1 Staff Assessment in the CEC Decision.

ATTACHMENT A

**Construction Facilities
Temporary Lighting Plan
25483-000-ELK-0000-00001**

CONTRACT NO. 25483-000 ELK-0000-00001
 RUSSELL CITY ENERGY CENTER
 CONSTRUCTION TEMPORARY LIGHTING PLAN
 DATE: 11/15/11
 DRAWN BY: J. H. HARRIS
 CHECKED BY: J. H. HARRIS
 APPROVED BY: J. H. HARRIS
 PROJECT NO. 25483-000 ELK-0000-00001



GE TYPE M-400 LUMINAIRE



GE WALLPACK LIGHT



TEMPORARY CONSTRUCTION FACILITIES:

- A- GUARD SHACK (10x10)
- B- TIME SHACK / TRAINING TRAILER (12x60)
- C- CRAFT CHANGE HOUSE (48x60 EA.)
- D- CONSTRUCTION SITE OFFICE (36x60 EA.)
- E- OUNER'S SITE OFFICE (36x60)
- F- STARTUP OFFICE (24x60)
- G1- MEN TOILETS (12x48 EA.)
- G2- WOMEN TOILETS (12x48)
- H- TOOL TRAILERS (10x40 EA.)
- I- FAB SHOP / WELD (25' x 40' x 22')
- J- SAFETY / 1185' x 110' (24' x 50')
- K- CONSTRUCTION OFFICE, PARKING / VISITOR PARKING
- L- SIEMENS OFFICE (12x60)
- M- GE OFFICE (12x60)
- N- CSD OFFICE (12x60)

- TEMPORARY PLANT LAYDOWN AREA
- CONSTRUCTION LAYDOWN AREA

NOTES:

1. ROADWAY LIGHTING FIXTURES ARE TO BE SET BACK 3 FEET FROM THE EDGE OF THE ROADWAY. SET BACKS MAY BE ADJUSTED TO SUIT FIELD CONDITIONS.
2. ROADWAY LIGHTS ARE TO BE CONTROLLED BY PHOTOELECTRIC CELLS.
3. PARKING LOT LIGHTS ARE TO BE MANUALLY CONTROLLED BY LOCALLY MOUNTED SWITCHES/CONTROLS.
4. ALL CONSTRUCTION STRUCTURES SUCH AS WAREHOUSES, TRAILERS, OFFICES, AND TOILETS SHALL BE EQUIPPED WITH GE CRITERION WALLPACK LIGHTING FOR EXTERIOR LIGHTING. THESE LUMINAIRES WILL BE INSTALLED NEAR THE DOOR(S) OF THE STRUCTURE.

FIXTURE SCHEDULE:

LEGEND	DESCRIPTION	CATALOG DATA
	POLE MOUNTED ROADWAY FIXTURE 250W HPS, 480 VOLT, 1W SINGLE ARM 30' POLE, GE TYPE M-400 LUMINAIRE WITH CUTOFF OPTICS. TRIM 90 DEGREE CUTOFF-NO LIGHT ABOVE 90 DEGREE (MEETS RP8-2000 FOR FULL CUTOFF).	GENERAL ELECTRIC CAT # MSE:250S2R214MC
	GE CRITERION WALLPACK LIGHTING, CUT OFF VERSION TO MEET DARK SKY STANDARDS 100W, HPS, MULTIVOLT 120/208/240/277, LOCAL MANUAL CONTROL	GENERAL ELECTRIC CAT # CCD105UM1BBLK00

 BECHTEL RESEARCH TO SAFETY EXCELLENCE AND ACCIDENTS FREDERICK, MARYLAND	
 CALPINE RUSSELL CITY ENERGY CENTER FREDERICK, MARYLAND	
CONSTRUCTION FACILITIES TEMPORARY LIGHTING PLAN	
25483-000 ELK-0000-00001	A

