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February 24, 2012

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Subject: Data Response, Set 1D-4
Hidden Hills Solar Electric Generating System (11-AFC-2)

Dear Mr. Monasmith:

On behalf of Hidden Hills Solar I, LLC; and Hidden Hills Solar II, LLC, please find attached an electronic copy of Data Response Set 1D-4, which responds to Staff's data request number 135 for the Hidden Hills Solar Electric Generating System (HHSEGS) Project.

Please call me if you have any questions.

Sincerely,

CH2M HILL

A handwritten signature in blue ink, reading "John L. Carrier".

John L. Carrier, J.D.
Program Manager

Encl.

c: POS List
Project file

DOCKET 11-AFC-2

DATE	<u>FEB 24 2012</u>
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RECD.	<u>FEB 27 2012</u>
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Data Response 1D-4

Hidden Hills

Solar Electric Generating System

(11-AFC-2)



Application for Certification
Hidden Hills Solar I, LLC; and Hidden Hills Solar II, LLC

February 2012

With Technical Assistance from



Hidden Hills Solar Electric Generating System (HHSEGS)

(11-AFC-2)

**Data Response, Set 1D-4
(Response to Data Request 135)**

Submitted to the
California Energy Commission

Submitted by
**Hidden Hills Solar I, LLC; and
Hidden Hills Solar II, LLC**

February 24, 2012

With Assistance from
CH2MHILL
2485 Natomas Park Drive
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5.14-4R3	Nonhazardous and Hazardous Waste Disposal Facilities in the Vicinity of the HHSEGS Site

Introduction

Attached is a revised and expanded response by Hidden Hills Solar I, LLC, and Hidden Hills Solar II, LLC (collectively, the Applicant) to the California Energy Commission (CEC) Staff's data request number 135 for the Hidden Hills Solar Electric Generating System (HHSEGS) Project (11-AFC-2). The CEC Staff served this data request on December 6, 2011. This response supplements information provided in previous responses submitted on January 6 and 20, 2012 (Sets 1D and 1D-2).

Waste Management (135)

BACKGROUND

The Hidden Hills AFC (Section 5.14-8) states that during construction there will be a combination of hazardous and nonhazardous materials (both solid and liquid) that will be generated. The AFC summarizes the removal and proper disposal of these waste streams by means that include collection at satellite accumulation containers near the points of generation, daily waste removal to a contractor's waste storage area located in the construction laydown area, and periodic 90-day removal and transportation of accumulated waste to authorized, nonhazardous and hazardous waste management facilities.

DATA REQUEST

135. Given the proposed project's proximity to Nevada, and the absence of hazardous waste collection facilities in California, please provide specific details on the Applicant's plans for nonhazardous and hazardous wastes that potentially would be generated at the facility as summarized in both Table 5.14-2 (construction phase) and Table 5.14-3 (operation phase). Please fully discuss:
- Disposal of nonhazardous materials, including the type and volume of waste expected to be generated (provide responses for both the construction phase and the operation phase), the facility that will receive the waste, its location, its current level (volume) of use, and its expected annual use on a cumulative basis (i.e., overall use by other existing and reasonably foreseeable facilities and projects in California and Nevada).
 - Disposal of hazardous materials, including the type and volume of waste expected to be generated (provide responses for both the construction phase and the operation phase), the facility that will receive the waste, its location, its current level (volume) of use, and its expected annual use on a cumulative basis (i.e., overall use by other existing and reasonably foreseeable facilities and projects in California and Nevada).

Response: Since Applicant's last filing on January 20, 2012, Applicant has completed further research requested on Nevada nonhazardous solid waste management regulations, and potential waste disposal options for nonhazardous waste generated by HHSEGS. This information has been summarized below and revisions to potential landfill sites are included in Table 5.14-4R3 (formerly Table 5.14-4R2).

The data was requested in conjunction with preparation of Data Response 135 and was refined based on discussions with California Energy Commission staff and the public at workshops held in Sacramento and Tecopa, California. Consistent with those discussions and refinements, additional research has been conducted for the purpose of providing information, such as regulation of solid waste disposal facilities in Nevada, landfill status, and availability (e.g., closure dates and capacities). The revised table 5.14-4R3 includes additional data (in **bold**). Footnotes and additional references also have been added to the revised table.

Regulation of Solid Waste Disposal Facilities in Nevada

In Nevada, landfills are regulated by regional health districts in cooperation with the Nevada State Department of Environmental Protection (NDEP). The Southern Nevada Health District (SNHD) is the solid waste management authority for Clark County, the Washoe County Health District is the solid waste management authority for Washoe County, and the NDEP serves as the solid waste management authority for the remaining areas of the state.

Nevada Nonhazardous Waste Class System

Class I and Class II facilities are allowed to accept municipal solid waste (MSW) and, within certain limits, can accept all other types of nonhazardous waste, including construction and demolition (C&D) and most industrial waste. The major difference between Class I and II facilities is the volume accepted on a daily basis, calculated on an annual average (Sergent, 2012). Class I landfills accept greater than 20 tons per day, and Class II landfills can accept less than 20 tons per day (and also have to meet other limiting criteria related to siting). Class III facilities are only allowed to accept industrial waste and are usually tied to a specific industrial facility (like the Southern California Edison Generating Station site). Individual sites have specific waste acceptance guidelines based on their permits. (Ridenour, 2012)

Definition of Industrial Solid Waste in Nevada

Industrial waste is defined as:

NAC 444.585 "Industrial solid waste" defined.

1. "Industrial solid waste" means solid waste derived from industrial or manufacturing processes, including, but not limited to, the solid waste generated by the:
 - a. Generation of electric power
 - b. Manufacture of fertilizer and agricultural chemicals
 - c. Manufacture of food and its related products and by-products
 - d. Manufacture of inorganic chemicals
 - e. Manufacture of leather and products made from leather
 - f. Manufacture of nonferrous metals, including the foundries which manufacture those metals
 - g. Manufacture of organic chemicals
 - h. Manufacture of plastics, resins and other miscellaneous products made from plastic
 - i. Pulp and paper industry
 - j. Manufacture of rubber and other miscellaneous products made from rubber
 - k. Manufacture of products made from stone, glass, clay and concrete
 - l. Manufacture of textiles
 - m. Manufacture of transportation equipment
 - n. Treatment of water
 - o. Manufacture of iron and steel
 - p. Construction, refurbishing or demolition of buildings or other structures
2. The term does not include waste generated by the mining, oil and gas industries. (Added to NAC by Environmental Commission, effective 9-2-92; A 11-8-93)

Available Nevada Nonhazardous Waste Disposal Sites

Clark County

Five transfer stations are permitted by SNHD in Clark County: three operated by Republic Services and two operated by the City of Las Vegas. The City transfer stations are not open to the public. The Sloan Transfer Station has been temporarily closed (re-open date unknown). The other two transfer stations, North Las Vegas (the “Cheyenne Transfer Station”) and Henderson, accept all types of solid waste; which then gets hauled to the Apex Landfill northeast of Las Vegas. Rock or C&D aggregate are generally direct hauled to either the Apex or Wells Cargo landfill (Ridenour, 2012).

Apex Landfill (Class I and III) has the capacity to accept all industrial and C&D waste from the HHSEGS project (Coyle, 2012). Wells Cargo Industrial Landfill (Class III) can accept inert construction and demolition debris including: sand, rock, dirt, excavated materials, caliche, cinder blocks, bricks, masonry concrete, stone, clay products (including clay roof tiles), asphalt, rebar, metal, steel, tile, stucco, plaster, and other inorganic materials. Not included are hazardous waste, wood, rubber tires, PVC pipe and fittings, any liquids, and drywall (Ross, 2012).

Nye County

US Ecology’s Beatty Landfill (Class II) can accept industrial waste including liquid waste from California and has capacity for the next eight years at a minimum (Wisniewski, 2012 and US Ecology, 2012).

Potential Nonhazardous Waste Haulers

Staff at both Apex Landfill and Beatty Landfill identified a number of waste haulers who do “milk runs” or waste hauling and pick-ups in rural or otherwise hard-to-serve areas, including southeastern California (Ross, 2012 and Coyle, 2012). These include the following businesses:

- WW Clyde Company
- Clean Harbors
- H2O Environmental
- Durbano
- Phillip Services
- MP Environmental
- Safety Kleen
- Demo Unlimited

Revised Table 5.14-4R2

Table 5.14-4R2 has been revised to include the additional and updated data (in **bold**) and is now called Table 5.14-4R3. Footnotes and a new reference have been added to this revision. Sloan Transfer Station and the Laughlin Landfill have been removed from the Nonhazardous Waste Facilities section. Sloan Transfer Station is temporarily closed and four landfills and a transfer station have been identified that are significantly closer to the project site than the Laughlin Landfill, which is approximately 145 miles away. An additional column has been added showing the distance of the facilities from HHSEGS. Wells Cargo Industrial Landfill has been added to the Nonhazardous Waste Facilities section, as well as US Ecology Beatty Landfill.

TABLE 5.14-4R3

Nonhazardous and Hazardous Waste Disposal Facilities in the Vicinity of the HHSEGS Site

Landfill	Location	Permitted Capacity (cubic yards)	Remaining Capacity (cubic yards)	Permitted Throughput (tons per day)	Estimated Closure Date	Distance from HHSEGS (in miles)	Enforcement Actions Taken
Nonhazardous Waste Facilities							
Pahrump Valley Landfill	Nye County, NV	2.5 million ^g	N/A	No Cap	2032	31	None
Republic Apex Regional Landfill ^a	Clark County, NV (Outside of Las Vegas, NV)	5,967,744	4,840,019	No Cap	1/1/2175	62	None
Republic Cheyenne Transfer Station	Clark County, NV	N/A	N/A	N/A	N/A	60	N/A
Wells Cargo^a	Clark County, NV	40.88 million	25 million	No Cap	2050	51	Yes^c
US Ecology Beatty Landfill^d	Nye County, NV	1.66 million	1 million	No Cap	2020	88	Yes^e
Hazardous Waste Facilities							
US Ecology Beatty Landfill ^d	Nye County, NV	1.66 million	1 million	No Cap	2020	88	Yes ^e
Chemical Waste Management, Inc. Kettleman Hills Landfill ^{b, f}	Kings County, CA	30.7 million	20 million	400 trucks/day	2044	347	None
Clean Harbors Buttonwillow Landfill ^b	Kern County, CA	14,293,760	9.2 million	10,482	1/1/2040	300	Yes ^h

^aNevada information from Southern Nevada Health District Solid Waste and Compliance (SWMA, 2011).^bCalifornia information from CalRecycle Solid Waste Information System Database (SWIS) (CalRecycle, 2011a).^c**Violation noted by NDEP related to Improper acceptance of liquid waste on 9/27/2007. No further violations reported by the facility.**^d**US Ecology Beatty accepts both non-hazardous and hazardous solid waste.**^eAfter a 2007 EPA RCRA Inspection noted 18 counts of violations the facility was the subject of a Civil Action, which was settled and a Final Order issued September 30, 2010, Violations related mainly to their thermal units, mostly for reporting issues. No violations after 2008.^fCurrently operating B-18 phase 1 and 2 (permitted capacity of 10.7 million cy, almost at capacity) with planned opening of phase 3 (permitted capacity of 5 million cy and 8 yr life expectancy); after B-18 reaches capacity, B-20 will be opened on currently undeveloped land at the site with permitted capacity of 15 million cy and 24 yr life expectancy (Henry, 2012).^gConverted from 1,500,000 tons (refuse density of 1,200lbs/cy; 1 ton=2,000lbs)^hNo violations in 2007-2011, except for 2 violations in 2009 for Disposal Site Records.

Note:

NA = Information is not available

Additional References

Coyle, Robert. 2012. Republic Services of Southern Nevada. Email communication with Jessica Brandt/CH2M HILL, February 15.

Nevada Department of Environmental Protection, Bureau of Waste Management website. 2012. <http://ndep.nv.gov/bwm/links1.htm>. Accessed February 14.

Nevada State Legislature, Nevada Administrative Code website. 2012. <http://www.leg.state.nv.us/NAC/NAC-444.html#NAC444Sec585>. Accessed February 14.

Ridenour, Eddie. 2012. Southern Nevada Health District. Personal communication with Jessica Brandt/CH2M HILL, February 8 and email communication with Jessica Brandt/CH2M HILL, February 13.

Ross, Dennis III. 2012. Wells Cargo Industrial Landfill. Email communication with Jessica Brandt/CH2M HILL, February 14 and February 16.

Sergent, Chester. 2012. Nevada Department of Environmental Protection. Email communication with Jessica Brandt/CH2M HILL, February 16.

US Ecology website. 2012. <http://www.americanecology.com/beatty.htm>. Accessed February 14.

Wisniewski, Scott. 2012. US Ecology- Beatty Landfill. Personal communication with Beth Storelli/CH2M HILL January 4 and Jessica Brandt/CH2M HILL February 14.