

DOCKETED

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Project Title:	Genesis Solar Energy Project
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Document Title:	RY 2019 ACR, Genesis Solar
Description:	Genesis Solar reporting year 2019 annual compliance report
Filer:	Averell Rose
Organization:	Genesis Solar Inc, Nextera Energy
Submitter Role:	Applicant
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July 16, 2020

Eric Veerkamp, Compliance Project Manager
California Energy Commission
15169th Street
Sacramento, CA 95814

**RE: Genesis Solar Energy Center DOCKET NUMBER 09-AFC-8
Annual Compliance Report for Reporting Year 2019**

Dear Mr. Veerkamp,

Pursuant to condition Compliance-7 of the Commission Decision for the Genesis Solar Energy Project, enclosed please find the Annual Compliance Report for the reporting year 2019.

Please call me if you have any questions at (760) 921-1401.

Going forward, after July 17, 2020, Mr. Averell Rose will transition into the environmental role for Genesis Solar, LLC. As you have already met and spoken to Averell, I note this for informational purposes only.

Sincerely,

Charlyn Mosley

Charlyn Mosley
Sr. PGD Environmental Specialist

GENESIS SOLAR ENERGY CENTER

California Energy Commission Docket #09-AFC-8 Annual Report for Reporting Year 2019

Current Operating Status and Significant Changes to Facility Operations

The Genesis Solar, LLC facility began commercial operation on March 7, 2014 (COD). The facility has experienced no operational outages or interruptions in service or any significant operational changes during the reporting year.

Modifications and Testing

During the stated period, the plant completed required testing for emissions compliance. All results were submitted to the MDAQMD and the California Energy Commission Compliance Manager. Annual air emissions testing for 2019 occurred from March 5 through March 26, 2019.

Environmental Health and Safety

Genesis Solar, LLC was injury free in 2019. There were 87251 total man hours worked in 2019.

Required specific conditions documentation to be included with the Annual Compliance Report

AQ-3	Bio-2		
AQ-5	Bio-4	S&W-1	COM-5
AQ-10	Bio-6	S&W-2	
AQ-12	Bio-13	S&W-5	
AQ-15	Bio-16	S&W-13	
AQ-16	Bio-19	S&W-16	
AQ-20	Bio-21	S&W-20	
AQ-30	Bio-22	TLSN-3	
AQ-39	Bio-27	Vis-1	
AQ-50	Haz-1	Waste-9	
AQSC-6	Haz-6	Worker Safety-9	

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Section 1

AQ-3 Aux Boilers Emissions Testing

Emissions from this equipment shall not exceed the following hourly emission limits at any firing rate, verified by fuel use and annual compliance tests:

- a. NO_x as NO₂: 0.330 lb/hr operating at 100% load (based on 9.0 ppmvd corrected to 3% O₂ and averaged over one hour)
- b. CO: 0.563 lb/hr operating at 100% load (based on 50 ppmvd corrected to 3% O₂ and averaged over one hour)
- c. VOC as CH₄: 0.088 lb/hr operating at 100% load
- d. SO_x as SO₂: 0.008 lb/hr operating at 100% load
- e. PM₁₀: 0.150 lb/hr operating at 100% load

Verification: Submit emissions compliance documentation in annual compliance report.

Response: Summaries of the Auxiliary Boilers emissions test results are presented below:

AUX BOILER 1 RESULTS SUMMARY

Test Date: March 5, 2019

Species	Units	Aux Boiler 1	Limit
NO _x	lb/hr	0.136	0.330
NO _x	ppm @ 3% O ₂	4.3	(9) (1)
CO	lb/hr	0.0 (2)	0.563
CO	ppm @ 3% O ₂	0.0 (2)	(50) (1)
Particulate Matter	lb/hr	0.003	0.150
SO _x	lb/hr	0.006	0.008
VOCs	lb/hr	0.019	0.088
Opacity	%	0%	20%

(1) basis of lb/hr limit

(2) test result below limits of quantitation for test method

AUX BOILER 2 RESULTS SUMMARY

Test Date: March 26, 2019

Species	Units	Aux Boiler2	Limit
NO _x	lb/hr	0.246	0.330
NO _x	ppm @ 3% O ₂	6.3	(9) (1)
CO	lb/hr	0.0 (2)	0.563
CO	ppm @ 3% O ₂	0.0 (2)	(50) (1)
Particulate Matter	lb/hr	0.041	0.150
SO _x	lb/hr	0.007	0.008
VOCs	lb/hr	0.027	0.088
Opacity	%	0%	20%

(1) basis of lb/hr limit

(2) test result below limits of quantitation for test method

Section 2

AQ-5 Aux Boilers Hours of Use

Operational hours on each Aux. Boiler

Verification: The project owner shall submit to the CPM the boiler hours of use records demonstrating compliance with this condition as part of the Annual Operation Report.

Response: Daily operational hours for each Aux. Boiler are presented in the below table. The data below includes days that the Auxiliary Boilers did not run.

	Aux Boilers			
	Unit 1		Unit 2	
	Daily Hours	Daily Fuel (MMBtu)	Daily Hours	Daily Fuel (MMBtu)
1/1/2019	0	0	8	47
1/2/2019	0	0	0	0
1/3/2019	0	0	0	0
1/4/2019	0	0	0	0
1/5/2019	13	107	13	79
1/6/2019	9	73	9	50
1/7/2019	0	0	0	0
1/8/2019	0	0	0	0
1/9/2019	0	0	0	0
1/10/2019	0	0	0	0
1/11/2019	0	0	0	0
1/12/2019	5	53	4	28
1/13/2019	0	0	0	0
1/14/2019	6	54	6	36
1/15/2019	1	5	1	3
1/16/2019	0	0	0	0
1/17/2019	0	0	0	0
1/18/2019	8	65	7	45
1/19/2019	0	0	0	0
1/20/2019	0	0	0	0
1/21/2019	0	0	0	0
1/22/2019	0	0	0	0
1/23/2019	0	0	0	0

1/24/2019	0	0	0	0
1/25/2019	0	0	0	0
1/26/2019	0	0	0	0
1/27/2019	0	0	0	0
1/28/2019	0	0	0	0
1/29/2019	3	36	3	19
1/30/2019	0	0	4	23
1/31/2019	2	20	6	32
2/1/2019	0	0	0	0
2/2/2019	0	0	0	2
2/3/2019	0	0	0	0
2/4/2019	0	0	0	0
2/5/2019	0	0	0	0
2/6/2019	0	0	0	0
2/7/2019	0	0	0	0
2/8/2019	0	0	0	0
2/9/2019	0	0	0	0
2/10/2019	0	0	0	0
2/11/2019	0	0	0	0
2/12/2019	0	0	0	0
2/13/2019	4	35	4	24
2/14/2019	0	0	0	0
2/15/2019	8	79	0	0
2/16/2019	3	21	0	0
2/17/2019	0	0	0	0
2/18/2019	0	0	0	0
2/19/2019	0	0	0	0
2/20/2019	0	0	0	0
2/21/2019	0	0	0	0
2/22/2019	4	41	0	0
2/23/2019	0	0	0	0
2/24/2019	0	0	0	0
2/25/2019	0	0	0	0
2/26/2019	0	0	0	0
2/27/2019	0	0	0	0
2/28/2019	0	0	0	0
3/1/2019	0	0	0	0
3/2/2019	0	0	0	0
3/3/2019	0	0	0	0
3/4/2019	11	206	0	0
3/5/2019	3	54	0	0

3/6/2019	0	0	2	20
3/7/2019	0	0	8	165
3/8/2019	0	0	0	0
3/9/2019	0	0	0	0
3/10/2019	0	0	0	1
3/11/2019	0	0	0	0
3/12/2019	6	60	6	43
3/13/2019	0	0	0	0
3/14/2019	0	0	0	0
3/15/2019	0	0	0	0
3/16/2019	0	0	0	0
3/17/2019	0	0	0	0
3/18/2019	0	0	0	0
3/19/2019	0	0	0	0
3/20/2019	3	27	2	16
3/21/2019	0	0	0	0
3/22/2019	0	0	0	0
3/23/2019	0	0	0	0
3/24/2019	0	0	0	0
3/25/2019	0	0	0	0
3/26/2019	0	0	0	0
3/27/2019	0	0	0	0
3/28/2019	0	0	0	0
3/29/2019	0	0	0	0
3/30/2019	0	0	0	0
3/31/2019	0	0	0	0
4/1/2019	0	0	0	0
4/2/2019	0	0	0	0
4/3/2019	0	0	0	0
4/4/2019	0	0	0	0
4/5/2019	0	0	0	0
4/6/2019	0	0	0	0
4/7/2019	0	0	0	0
4/8/2019	0	0	0	0
4/9/2019	0	0	0	0
4/10/2019	0	0	0	0
4/11/2019	0	0	0	0
4/12/2019	1	11	0	0
4/13/2019	0	0	1	10
4/14/2019	0	0	0	0
4/15/2019	0	0	0	0

4/16/2019	0	0	0	0
4/17/2019	0	0	0	0
4/18/2019	0	0	0	0
4/19/2019	0	0	0	0
4/20/2019	0	0	0	0
4/21/2019	0	0	0	0
4/22/2019	0	0	0	0
4/23/2019	0	0	0	0
4/24/2019	0	0	0	0
4/25/2019	0	0	0	0
4/26/2019	0	0	0	0
4/27/2019	0	0	0	0
4/28/2019	0	0	0	0
4/29/2019	0	0	0	0
4/30/2019	0	0	0	0
5/1/2019	0	0	0	0
5/2/2019	0	0	0	0
5/3/2019	0	0	0	0
5/4/2019	0	0	0	0
5/5/2019	0	0	0	0
5/6/2019	0	0	0	0
5/7/2019	0	0	0	0
5/8/2019	0	0	0	0
5/9/2019	0	0	0	0
5/10/2019	0	4	0	0
5/11/2019	0	0	0	0
5/12/2019	0	0	0	0
5/13/2019	0	0	0	0
5/14/2019	0	0	0	0
5/15/2019	0	0	0	0
5/16/2019	1	14	1	5
5/17/2019	0	0	8	56
5/18/2019	0	0	0	0
5/19/2019	0	0	0	0
5/20/2019	0	0	0	0
5/21/2019	0	0	0	0
5/22/2019	0	0	0	0
5/23/2019	0	0	0	0
5/24/2019	0	0	0	0
5/25/2019	0	0	0	0
5/26/2019	0	0	0	0

5/27/2019	0	0	0	0
5/28/2019	0	0	0	0
5/29/2019	0	0	0	0
5/30/2019	0	0	0	0
5/31/2019	0	0	0	0
6/1/2019	0	0	0	0
6/2/2019	0	0	0	0
6/3/2019	0	0	0	0
6/4/2019	0	0	0	0
6/5/2019	0	0	0	0
6/6/2019	0	0	0	0
6/7/2019	0	0	0	0
6/8/2019	0	0	0	0
6/9/2019	0	0	0	0
6/10/2019	0	0	0	0
6/11/2019	0	0	0	0
6/12/2019	0	0	0	0
6/13/2019	0	0	0	0
6/14/2019	0	0	0	0
6/15/2019	0	0	0	0
6/16/2019	0	0	0	0
6/17/2019	0	0	0	0
6/18/2019	0	0	0	0
6/19/2019	0	0	0	1
6/20/2019	0	0	0	0
6/21/2019	0	0	0	0
6/22/2019	0	0	0	0
6/23/2019	0	0	0	0
6/24/2019	1	11	0	0
6/25/2019	0	0	0	0
6/26/2019	0	0	0	0
6/27/2019	0	0	0	0
6/28/2019	0	0	0	0
6/29/2019	2	24	5	31
6/30/2019	9	74	9	55
7/1/2019	0	0	0	0
7/2/2019	0	0	0	0
7/3/2019	0	0	0	0
7/4/2019	0	0	0	0
7/5/2019	0	0	0	0
7/6/2019	0	0	0	0

7/7/2019	0	0	0	0
7/8/2019	0	0	0	0
7/9/2019	0	0	0	0
7/10/2019	0	0	0	0
7/11/2019	0	0	0	0
7/12/2019	0	0	0	0
7/13/2019	0	0	0	0
7/14/2019	0	0	0	0
7/15/2019	0	0	0	0
7/16/2019	0	0	0	0
7/17/2019	0	0	0	0
7/18/2019	0	0	0	0
7/19/2019	0	0	0	0
7/20/2019	0	0	0	0
7/21/2019	0	0	0	0
7/22/2019	0	0	0	0
7/23/2019	0	0	0	0
7/24/2019	0	0	0	0
7/25/2019	1	13	0	0
7/26/2019	0	0	0	0
7/27/2019	0	0	0	0
7/28/2019	0	0	0	0
7/29/2019	0	0	0	0
7/30/2019	0	0	0	0
7/31/2019	0	0	0	0
8/1/2019	0	0	0	0
8/2/2019	0	0	0	0
8/3/2019	0	0	0	0
8/4/2019	0	0	0	0
8/5/2019	0	0	0	0
8/6/2019	0	0	0	0
8/7/2019	0	0	0	0
8/8/2019	0	0	0	0
8/9/2019	0	0	0	0
8/10/2019	0	0	0	0
8/11/2019	0	0	0	0
8/12/2019	0	0	0	0
8/13/2019	0	0	0	0
8/14/2019	0	0	0	0
8/15/2019	0	0	0	0
8/16/2019	0	0	0	0

8/17/2019	0	0	0	0
8/18/2019	0	0	0	0
8/19/2019	0	0	0	0
8/20/2019	1	12	0	0
8/21/2019	0	0	0	0
8/22/2019	0	0	0	0
8/23/2019	0	0	0	0
8/24/2019	0	0	0	0
8/25/2019	0	0	0	0
8/26/2019	0	0	0	0
8/27/2019	0	0	0	0
8/28/2019	0	0	0	0
8/29/2019	0	0	0	0
8/30/2019	0	0	0	0
8/31/2019	0	0	0	0
9/1/2019	0	0	0	0
9/2/2019	0	0	0	0
9/3/2019	0	0	0	0
9/4/2019	0	0	0	0
9/5/2019	0	0	0	0
9/6/2019	0	0	0	0
9/7/2019	0	0	0	0
9/8/2019	0	0	0	0
9/9/2019	0	0	0	0
9/10/2019	0	0	0	0
9/11/2019	0	0	0	0
9/12/2019	0	0	0	0
9/13/2019	0	0	0	0
9/14/2019	0	0	0	0
9/15/2019	0	0	0	0
9/16/2019	0	0	0	0
9/17/2019	0	0	0	0
9/18/2019	0	0	0	0
9/19/2019	0	0	0	0
9/20/2019	0	0	0	0
9/21/2019	0	0	0	0
9/22/2019	0	0	0	0
9/23/2019	0	0	0	0
9/24/2019	0	0	0	0
9/25/2019	0	0	0	0
9/26/2019	1	5	0	0

9/27/2019	0	0	0	0
9/28/2019	0	0	0	0
9/29/2019	0	0	0	0
9/30/2019	0	0	0	0
10/1/2019	0	0	0	0
10/2/2019	0	0	0	0
10/3/2019	0	0	0	0
10/4/2019	0	0	0	0
10/5/2019	0	0	0	0
10/6/2019	0	0	0	0
10/7/2019	0	0	0	0
10/8/2019	0	0	0	0
10/9/2019	0	0	0	0
10/10/2019	0	0	0	0
10/11/2019	0	0	0	0
10/12/2019	0	0	0	0
10/13/2019	0	0	0	0
10/14/2019	0	0	0	0
10/15/2019	0	0	0	0
10/16/2019	0	0	0	0
10/17/2019	0	0	0	0
10/18/2019	0	0	1	10
10/19/2019	0	0	0	0
10/20/2019	0	1	0	0
10/21/2019	0	0	0	0
10/22/2019	0	0	0	0
10/23/2019	0	0	0	0
10/24/2019	0	0	0	0
10/25/2019	0	0	0	0
10/26/2019	0	0	0	0
10/27/2019	0	0	0	0
10/28/2019	0	0	0	0
10/29/2019	0	0	0	0
10/30/2019	0	0	0	0
10/31/2019	0	0	0	0
11/1/2019	0	0	0	0
11/2/2019	0	0	0	0
11/3/2019	0	0	0	0
11/4/2019	0	0	0	0
11/5/2019	0	0	0	0
11/6/2019	0	0	0	0

11/7/2019	0	0	0	0
11/8/2019	0	0	0	0
11/9/2019	0	0	0	0
11/10/2019	0	0	0	0
11/11/2019	0	0	0	0
11/12/2019	0	0	0	0
11/13/2019	0	0	0	0
11/14/2019	0	0	0	0
11/15/2019	0	0	0	0
11/16/2019	0	0	0	0
11/17/2019	0	0	0	0
11/18/2019	0	0	0	0
11/19/2019	2	12	0	0
11/20/2019	0	0	0	0
11/21/2019	3	25	0	0
11/22/2019	0	0	0	0
11/23/2019	0	0	0	0
11/24/2019	0	0	0	0
11/25/2019	0	0	0	0
11/26/2019	0	0	0	0
11/27/2019	3	30	0	0
11/28/2019	0	0	0	0
11/29/2019	4	32	0	0
11/30/2019	0	0	0	0
12/1/2019	0	0	0	0
12/2/2019	0	0	0	0
12/3/2019	10	90	1	11
12/4/2019	0	0	12	134
12/5/2019	11	120	9	101
12/6/2019	0	0	0	0
12/7/2019	12	98	0	1
12/8/2019	13	120	0	1
12/9/2019	4	47	3	40
12/10/2019	0	0	0	0
12/11/2019	0	0	0	0
12/12/2019	0	0	0	0
12/13/2019	0	0	0	0
12/14/2019	0	0	0	0
12/15/2019	0	0	0	0
12/16/2019	0	0	0	0
12/17/2019	0	0	0	0

12/18/2019	0	0	0	0
12/19/2019	0	0	0	0
12/20/2019	0	0	0	0
12/21/2019	0	0	0	0
12/22/2019	10	89	0	0
12/23/2019	14	169	13	161
12/24/2019	9	116	8	104
12/25/2019	0	0	0	0
12/26/2019	13	111	11	136
12/27/2019	11	100	10	127
12/28/2019	0	0	0	0
12/29/2019	0	0	0	0
12/30/2019	14	148	13	173
12/31/2019	11	132	13	138

Section 3

AQ-10 HTF Ullage Vessels' Carbon Absorption System

This system shall be operated at all times with the carbon adsorption system as follows:

- a. The carbon adsorption system shall provide 98% control efficiency of VOC emissions vented from the HTF ullage system.*
- b. The project owner shall prepare and submit a monitoring and change-out plan for the carbon adsorptions system which ensures that the system is operating at optimal control efficiency at all times for District approval prior to start up.*
- c. This equipment shall be properly maintained and kept in good operating condition at all times.*
- d. This equipment must be in use and operating properly at all times the HTF ullage system is venting.*
- e. Total emissions of VOC to the atmosphere shall not exceed 1.5 lbs/day and 540 lbs/year calculated based on the most recent monitoring results.*
- f. During operation, the project owner shall monitor VOC measured at outlet from the carbon beds. Sampling is to be performed on a weekly basis. Samples shall be analyzed pursuant to U.S.EPA Test Method 25 – Gaseous Non-Methane Organic Emissions. Initial test shall be submitted to the District within 180 days after startup.*
- g. FID shall be considered invalid if not calibrated on the day of required use.*
- h. The project owner shall maintain current and on-site for the duration of the project a log of the weekly test results, which shall be provided to District personnel upon request, with date and time the monitoring was conducted.*
- i. Prior to January 31 of each new year, the project owner of this unit shall submit to the District a summary report of all VOC emissions (as hexane).*

Verification: *The project owner shall submit information demonstrating compliance with the substantive and recordkeeping provisions of this condition in the Annual Compliance Report.*

Response: Below are the Emissions Testing Results.

Unit 1

**TABLE 4-1
NO_x AND CO TESTS RESULTS**

Date	3/4/2019	3/4/2019	3/4/2019	-	-	-
Start Time	15:20	16:35	17:50	-	-	-
Stop Time	16:20	17:35	18:50	-	-	-
Run No.	1	2	3	Average	Limit	Status
O ₂ , % dry	9.38	9.47	9.59	9.48	-	-
CO ₂ , % dry	6.60	6.52	6.48	6.54	-	-
Stack Flow Rate, dscfm(from PM tests)	5,112	5,113	5,097	5,107	-	-
NO _x Concentration raw (ppmv)	2.48	2.48	2.16	2.38	-	-
NO _x Concentration 3% O ₂ (ppmv)	3.86	3.88	3.43	3.72	(9)*	-
NO _x , lb/hr	0.091	0.091	0.079	0.087	0.330	Pass
CO Concentration raw (ppmv)	0.00	0.00	0.00	0.00	-	-
CO Concentration 3% O ₂ (ppmv)	0.00	0.00	0.00	0.00	(50)*	-
CO, lb/hr	0.000	0.000	0.000	0.000	0.563	Pass

*basis of lb/hr limit

**TABLE 4-2
PARTICULATE MATTER TEST RESULTS**

Test No.	1-PM-AB-1	2-PM-AB-1	3-PM-AB-1	Average	Limit
Date	3/4/2019	3/4/2019	3/5/2019		
Start/Stop Time	1520/1722	1745/1948	840/1042		
Stack O ₂ (%)	9.41	9.59	9.61	9.54	
Stack CO ₂ (%)	6.59	6.48	6.47	6.51	
Stack Press (iwg)	0.2	0.2	0.2	0.2	
Stack Temp (°F)	340.4	340.4	341.1	340.6	
Stack Gas Velocity (ft/sec)	34.55	34.36	37.33	35.41	
Isokinetic Ratio (%)	99.3	103.5	102.3	101.7	
Stack Flow Rate (wacfm)	8,864	8,815	9,579	9,086	
Stack Flow Rate (dscfm)	5,111	5,096	5,535	5,247	
Particulate Emissions					
Grain Loading, gr/dscf	0.0002	0.0004	0.0006	0.0004	
Grain Loading gr/dscf @ 12% CO ₂	0.0004	0.0007	0.0011	0.0007	
Grain Loading, mg/m ³	0.5374	0.8928	1.3139	0.9147	
Grain Loading, mg/m ³ @ 3% O ₂	0.8843	1.4922	2.2000	1.5255	
Mass Emissions, lb/hr	0.0103	0.0170	0.0272	0.0180	0.150

**TABLE 4-3
VOC TEST RESULTS**

Run	Date	Start Time	End Time	Total Hydrocarbons, ppm as Methane	Stack Flow, wscfm	Total Hydrocarbons, lb/hr as Methane
1-HC-AB1	3/4/2019	15:20	16:20	0.63	5,773	0.009
2-HC-AB1	3/4/2019	16:35	17:35	0.53	5,774	0.008
3-HC-AB1	3/4/2019	17:50	18:50	0.50	5,741	0.007
Average				0.55	5,763	0.008
Limit					Limit:	0.088

**TABLE 4-4
SULFUR OXIDES TEST RESULTS**

Client: Genesis Solar
Facility: Unit 1
Unit: Aux Boiler

Date: 3/7/2019

ppm (as H ₂ S)	Fuel Flow Rate, scfh	lb/hr SO ₂	Limit
2.10	16,563	0.006	0.008

**TABLE 4-5
VISIBLE EMISSIONS TEST RESULTS**

Test Number	1-VE-1	2-VE-1	3-VE-1	Average	Limit
Test Date	3/4/2019	3/4/2019	3/4/2019		
Start/Stop Time	1525/1531	1532/1538	1539/1545		
Number of Readings	18	18	18		
Minimum Reading, % Opacity	0	0	0	0	
Maximum Reading, % Opacity	0	0	0	0	
Average Reading, % Opacity	0	0	0	0	20

Unit 2

**TABLE 4-1
NO_x AND CO TESTS RESULTS**

Date	3/7/2019	3/7/2019	3/7/2019	-	-	-
Start Time	8:30	9:45	11:00	-	-	-
Stop Time	9:30	10:45	12:00	-	-	-
Run No.	1	2	3	Average	Limit	Status
O ₂ , % dry	9.63	9.61	9.61	9.61	-	-
CO ₂ , % dry	6.45	6.44	6.46	6.45	-	-
Stack Flow Rate, dscfm(from PM tests)	6,465	6,466	6,435	6,455	-	-
NO _x Concentration raw (ppmv)	1.94	1.98	2.01	1.98	-	-
NO _x Concentration 3% O ₂ (ppmv)	3.07	3.14	3.19	3.14	(9)*	-
NO _x , lb/hr	0.090	0.092	0.093	0.091	0.330	Pass
CO Concentration raw (ppmv)	0.08	0.04	0.00	0.04	-	-
CO Concentration 3% O ₂ (ppmv)	0.13	0.06	0.00	0.06	(50)*	-
CO, lb/hr	0.002	0.001	0.000	0.001	0.563	Pass

*basis of lb/hr limit

**TABLE 4-2
PARTICULATE MATTER TEST RESULTS**

Test No.	1-PM-AB-2	2-PM-AB-2	3-PM-AB-2	Average	Limit
Date	3/7/2019	3/7/2019	3/7/2019		
Start/Stop Time	830/1032	1048/1250	1305/1507		
Stack O ₂ (%)	9.62	9.60	9.61	9.61	
Stack CO ₂ (%)	6.43	6.46	6.44	6.44	
Stack Press (iwg)	0.2	0.2	0.2	0.2	
Stack Temp (°F)	349.3	348.6	348.9	348.9	
Stack Gas Velocity (ft/sec)	44.28	44.01	44.56	44.29	
Isokinetic Ratio (%)	94.7	97.8	103.1	98.5	
Stack Flow Rate (wacfm)	11,361	11,292	11,432	11,362	
Stack Flow Rate (dscfm)	6,464	6,434	6,522	6,474	
Particulate Emissions					
Grain Loading, gr/dscf	0.0000	0.0004	0.0003	0.0002	
Grain Loading gr/dscf @ 12% CO ₂	0.0000	0.0007	0.0006	0.0004	
Grain Loading, mg/m ³	0.0517	0.8042	0.7525	0.5361	
Grain Loading, mg/m ³ @ 3% O ₂	0.0866	1.3454	1.2595	0.8972	
Mass Emissions, lb/hr	0.0013	0.0194	0.0184	0.0130	0.150

**TABLE 4-3
VOC TEST RESULTS**

Run	Date	Start Time	End Time	Total Hydrocarbons, ppm as Methane	Stack Flow, wscfm	Total Hydrocarbons, lb/hr as Methane
1-HC-AB2	3/7/2019	8:30	9:30	1.08	7,309	0.020
2-HC-AB2	3/7/2019	9:45	10:45	0.86	7,310	0.016
3-HC-AB2	3/7/2019	11:00	12:00	0.78	7,271	0.014
Average				0.90	7,297	0.016
Limit					Limit:	0.088

**TABLE 4-4
SULFUR OXIDES TEST RESULTS**

Client: Genesis Solar
Facility: Unit 2
Unit: Aux Boiler

Date: 3/7/2019

ppm (as H ₂ S)	Fuel Flow Rate, scfh	lb/hr SO ₂	Limit
2.36	18,029	0.007	0.008

**TABLE 4-5
VISIBLE EMISSIONS TEST RESULTS**

Test Number	1-VE-2	2-VE-2	3-VE-2	Average	Limit
Test Date	3/7/2019	3/7/2019	3/7/2019		
Start/Stop Time	835/841	842/848	849/855		
Number of Readings	18	18	18		
Minimum Reading, % Opacity	0	0	0	0	
Maximum Reading, % Opacity	0	0	0	0	
Average Reading, % Opacity	0	0	0	0	20

Section 4

AQ-12 HTF Ullage/Expansion Tanks

The project owner shall establish an inspection and maintenance program to determine repair, and log leaks in HTF piping network and expansion tanks. Inspection and maintenance program and documentation shall be available to District staff upon request.

- a. All pumps, compressors and pressure relief devices (pressure relief valves or rupture disks) shall be electronically, audio, or visually inspected once every operating day.*
- b. All accessible valves, fittings, pressure relief devices (PRDs), hatches, pumps, compressors, etc. shall be inspected quarterly using a leak detection device such as a Foxboro OVA 108 calibrated for methane.*
- c. Inspection frequency for accessible components, except pumps, compressors and pressure relief valves, may be changed from quarterly to annual when two percent or less of the components within a component type are found to leak during an inspection for five consecutive quarters.*
- d. Inspection frequency for accessible components, except pumps, compressors and pressure relief valves, shall be increased to quarterly when more than two percent of the components within a component type are found to leak during any inspection or report.*
- e. If any evidence of a potential leak is found the indication of the potential leak shall be eliminated within 7 calendar days of detection.*
- f. VOC leaks greater than 10,000-ppmv shall be repaired within 24-hours of detection.*
- g. After a repair, the component shall be re-inspected for leaks as soon as practicable, but no later than 30 days after the date on which the component is repaired and placed in service.*
- h. The project owner shall maintain a log of all VOC leaks exceeding 10,000-ppmv, including location, component type, date of leak detection, emission level (ppmv), method of leak detection, date of and repair, date and emission level of re-inspection after leak is repaired.*
- i. The project owner shall maintain records of the total number of components inspected, and the total number and percentage of leaking components found, by component types made.*
- j. The project owner shall maintain record of the amount of HTF replaced on a monthly basis for a period of 5 years.*

Verification: *The inspection, monitoring, and maintenance plan for the vent release shall be submitted to the CPM for review at least 30 days before taking delivery of the HTF. As part of the Annual Compliance Report, the project owner shall provide the quantity of used HTF fluid removed from the system and the amount of new HTF fluid added to the system each year.*

Response: Below is a Table with the volume of HTF Fluid removed and added to the system during the reporting year.

	Year Received	Quantity Added	Year Received	Quantity Added	Year Received	Quantity Added	Year Received	Quantity Added
Year	2019							
Total	605							
Date								
Ordered								
1/17/2019	4							
3/28/2019	5							
7/21/2019	2							

A total of 605 gallons was placed in the HTF lube system for a seal leak. The HTF received were in 55 gallon drums in the year 2019.

Section 5

AQ-15 HTF Ullage/Expansion Tanks

The project owner shall perform the following annual compliance tests on this equipment in accordance with the MDAQMD Compliance Test Procedural Manual. The test report shall be submitted to the District no later than six weeks prior to the expiration date of this permit.

Verification: *Verification: As part of the Annual Compliance Report, the project owner shall include the test results demonstrating compliance with this condition and the project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.*

AQ-16 HTF Ullage/Expansion Tanks

Emissions from this equipment may not exceed the following emission limits, based on a calendar day summary:

- a. VOC as CH₄ – 1.5 lb/day, verified by compliance test.*
- b. Benzene – 0.6 lb/day, verified by compliance test.*

Verification: *As part of the Annual Compliance Report, the project owner shall include the test results demonstrating compliance with this condition and the project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.*

Response: Below are the test results for each unit.

UNIT 1 ULLAGE VENT TEST RESULTS:

**TABLE 1-1 RESULTS SUMMARY
MARCH 4, 2019**

Parameter	South Vent	North Vent	Limit
Total Non-Methane/Ethane Hydrocarbons, lb/day as Methane	1.45	1.49	1.5
Benzene, lb/day	0.00436	0.00229	0.6

UNIT 2 ULLAGE VENT TEST RESULTS:

**TABLE 1-1 RESULTS SUMMARY
MARCH 7, 2019**

Parameter	South Vent	North Vent	Limit
Total Non-Methane/Ethane Hydrocarbons, lb/day as Methane	0.00	0.22	1.5
Benzene, lb/day	< 0.00042	< 0.00038	0.6

Section 6

Original AQ-20 Cooling Towers

The drift rate shall not exceed 0.0005 percent with a maximum circulation rate of 9450 gallons per minute. The maximum hourly PM10 emission rate shall not exceed 2.36 pounds per hour, as calculated per the written District-approved protocol.

Amended AQ-20 Cooling Towers

The drift rate shall not exceed 0.0005 percent with a maximum circulation rate of 3450 gallons per minute. The maximum hourly PM10 emission rate shall not exceed .043 pounds per hour, as calculated per the written District approved protocol.

Response: Below are the PM10 Data for each unit.

Unit 1

Genesis Solar PM10 Data

Date	Cooling Tower TDS (ppmw)	Cooling Tower Flow (gpm)	Cooling Tower Flow Rate (klbm/hr)	Cooling Tower PM10 (lbm/hr)
01/06/19	208	3430	1716	0.001
01/13/19	214	3439	1721	0.002
01/20/19	211	3487	1745	0.002
01/27/19	211	3385	1694	0.002
02/03/19	226	3426	1714	0.002
02/10/19	210	3397	1700	0.002
02/17/19	207	3375	1689	0.002
02/24/19	202	3312	1657	0.002
03/03/19	192	3411	1707	0.002
03/10/19	218	3455	1729	0.002
03/17/19	215	3346	1675	0.002
03/24/19	209	3343	1673	0.002
03/31/19	222	3348	1675	0.002
04/07/19	174	3381	1692	0.002
04/14/19	73	3342	1672	0.001
04/21/19	76	3363	1683	0.001
04/28/19	92	3329	1666	0.001
05/05/19	101	3254	1628	0.001
05/12/19	94	3304	1653	0.001
05/19/19	139	3302	1652	0.001
05/26/19	153	3280	1641	0.001
06/02/19	107	3289	1646	0.001
06/09/19	93	3288	1645	0.001
06/16/19	95	3201	1602	0.001
06/23/19	103	3268	1635	0.001
06/30/19	100	3255	1629	0.001
07/07/19	162	3320	1661	0.001

07/14/19	180	3328	1665	0.001
07/21/19	137	3334	1668	0.002
07/28/19	227	3270	1637	0.001
08/04/19	264	3308	1655	0.002
08/11/19	489	3297	1650	0.002
08/18/19	471	3339	1671	0.004
08/25/19	487	3257	1630	0.004
09/01/19	497	3241	1622	0.004
09/08/19	489	3154	1578	0.004
09/15/19	488	3215	1609	0.004
09/22/19	541	3263	1633	0.004
09/29/19	510	3254	1628	0.004
10/06/19	499	3267	1635	0.004
10/13/19	500	3326	1664	0.004
10/20/19	500	3366	1685	0.004
10/27/19	498	3344	1674	0.004
11/03/19	476	3343	1673	0.004
11/10/19	488	3341	1672	0.004
11/17/19	486	3346	1675	0.004
11/24/19	492	3342	1672	0.004
12/01/19	465	3339	1671	0.004
12/08/19	489	3344	1674	0.004
12/15/19	160	3339	1671	0.004
12/22/19	323	3348	1676	0.001
12/29/19	462	3371	1687	0.003

Unit 2

Genesis Solar PM10 Data

Date	Cooling Tower TDS (ppmw)	Cooling Tower Flow (gpm)	Cooling Tower Flow Rate (klbm/hr)	Cooling Tower PM10 (lbm/hr)
01/06/19	103	3277	1640	0.001
01/13/19	151	3249	1626	0.001
01/20/19	204	3233	1618	0.001
01/27/19	212	3171	1587	0.002
02/03/19	258	3242	1622	0.002
02/10/19	223	3217	1610	0.002
02/17/19	219	3225	1614	0.002
02/24/19	222	3206	1604	0.002
03/03/19	206	3196	1599	0.002
03/10/19	223	3252	1628	0.002
03/17/19	221	3216	1609	0.002
03/24/19	222	3256	1629	0.002
03/31/19	213	3242	1622	0.002
04/07/19	180	3243	1623	0.002
04/14/19	80	3219	1611	0.001

04/21/19	131	3220	1611	0.001
04/28/19	80	3214	1608	0.001
05/05/19	87	3142	1572	0.001
05/12/19	96	3168	1585	0.001
05/19/19	95	3165	1584	0.001
05/26/19	92	3158	1580	0.001
06/02/19	95	3158	1580	0.001
06/09/19	94	3162	1582	0.001
06/16/19	95	3141	1572	0.001
06/23/19	102	3134	1568	0.001
06/30/19	103	3136	1569	0.001
07/07/19	123	3169	1586	0.001
07/14/19	233	3189	1596	0.001
07/21/19	361	3196	1599	0.002
07/28/19	556	3139	1571	0.003
08/04/19	472	3424	1713	0.004
08/11/19	496	3217	1610	0.004
08/18/19	482	3242	1622	0.004
08/25/19	487	3198	1600	0.004
09/01/19	496	3189	1596	0.004
09/08/19	499	3141	1572	0.004
09/15/19	511	3161	1582	0.004
09/22/19	523	3189	1596	0.004
09/29/19	489	3199	1601	0.004
10/06/19	505	3203	1603	0.004
10/13/19	540	3256	1629	0.004
10/20/19	502	3273	1638	0.004
10/27/19	533	3276	1639	0.004
11/03/19	495	3296	1649	0.004
11/10/19	502	3292	1647	0.004
11/17/19	486	3314	1659	0.004
11/24/19	408	3176	1589	0.004
12/01/19	462	3304	1653	0.003
12/08/19	307	3301	1652	0.004
12/15/19	445	3287	1645	0.003
12/22/19	482	3293	1648	0.004

Section 7

AQ-30 Emergency Diesel Generators

The project owner shall maintain an operations log for this unit current and on-site, either at the engine location or at an on-site location

Verification: *The project owner shall submit records required by this condition that demonstrating compliance with the sulfur content and engine use limitations of conditions AQ-27 and AQ-29 in the Annual Compliance Report, including a photograph showing the annual reading of engine hours. The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.*

Response: Below are the photographs for each emergency generator showing the Hour Meter Reading



During the 2019 outage, the MDAQMD allowed use of the Emergency diesel generators to power essential equipment. See attachment below.

U1 EDG

Hour Reading
1/1/2018 318.8 hrs

Hour reading
1/1/2019 444.4 hrs

Total hours = 209.9



U2 EDG

Hour Reading
1/1/2018 319.3 hrs

Hour reading
1/1/2019 421.8 hrs

Total hours = 102.5



Mojave Desert Air Quality Management District
14306 Park Avenue, Victorville, CA 92392-2310
760.245.1661 • Fax 760.245.2699
Visit our web site: <http://www.mdaqmd.ca.gov>
Brad Poiriez, Executive Director

November 15, 2016

Ray Winston
Production Manager
Genesis Solar, LLC
11995 Wiley's Well Road
Blythe, CA 92225

Dear Mr. Winston,

The District received your letter dated November 15, 2016 requesting permission to use emergency engine permitted at your facility during a planned outage to occur December 10 through 21, 2016. The District approves the use of your permitted emergency diesel engines to power auxiliary equipment necessary to maintain the facility only. The facility is not to use emergency engines to produce electric power for any other purpose.

If you have any questions regarding this approval, please contact Roseana Brasington, Air Quality Engineer at 760-245-1661 ext. 5706 or via email at rnbrasington@mdaqmd.ca.gov

Sincerely,

Alan De Salvio

From: Alan De Salvio [<mailto:Adesalvio@mdaqmd.ca.gov>]

Sent: Tuesday, October 31, 2017 3:31 PM

To: Mosley, Charlyn

Cc: Preher, Eric; Larson, Talon

Subject: RE: Genesis Solar, LLC emergency diesel generator use during outage

CAUTION - EXTERNAL EMAIL

The identified use will not count against your 200 hour alternative energy source emergency limit as

- 1) The use is during an emergency (loss of commercial power), AND
- 2) You will not be using alternative energy to generate electricity for sale on the grid

Please log the use accordingly.

Alan J. De Salvio

Deputy Director – Mojave Desert Operations

Mojave Desert AQMD (Antelope Valley AQMD by contract)

760-245-1661 x6726 desk

760-403-4724 mobile

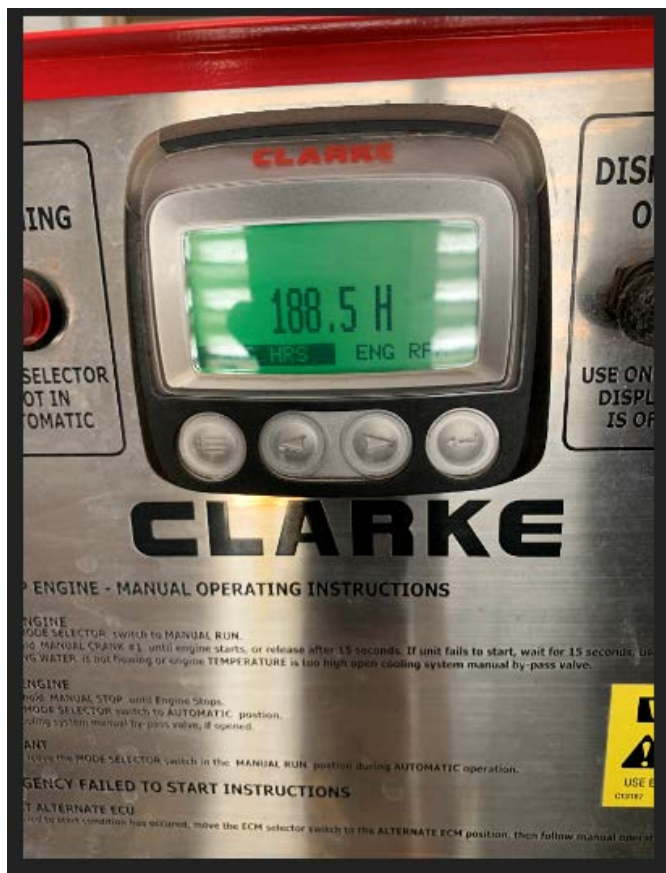
760-245-2022 facsimile

Section 8

AQ-39 Emergency Diesel Fire Pump

Verification: The project owner shall submit records required by this condition that demonstrating compliance with the sulfur content and engine use limitations of conditions **AQ-36** and **AQ-38** in the Annual Compliance Report, including a photograph showing the annual reading of engine hours. The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

Response: Below is the Hour Meter photograph for the Emergency Diesel Fire Pump.



Hour Reading on 1/1/2018 - 128.0 hrs.

Hour Reading on 1/1/2019 - 188.5 - hrs.

Total = 60.5 Hours

Section 9

AQ-50 Gasoline Storage Tank

Verification: *The project owner shall submit to the CPM gasoline throughput records demonstrating compliance with this condition as part of the Annual Compliance Report. The project owner shall maintain on site the annual gasoline throughput records and shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.*

Response: Below are the Gasoline and Diesel Fuel Throughput Records.

Diesel and Unleaded Fuel Consumption



GDF Throughput Record

Calendar Year: 2019

	Gallons			
	Gasoline (87,89 and 91)	Diesel	Other *	Propane
January	Ø	Ø	N/A	N/A
February	2009 GAL	1965 GAL		
March	Ø	Ø		
April	1862 GAL	1651 GAL		
May	882 GAL	1470 GAL		
June	Ø	Ø		
July	1791 GAL	600 GAL		
August	1502 GAL	501 GAL		
September	1540 GAL	700 GAL		
October	1205 GAL	750 GAL		
November	1078 GAL	700 GAL		
December	Ø	Ø	↓	↓
ANNUAL TOTAL	11,889 GAL	8,337 GAL	N/A	N/A

*Aviation Gas, Ethanol, Racing Fuel

Total Fuel Use

MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT
BRAD POIRIEZ, EXECUTIVE DIRECTOR
 14306 Park Avenue, Victorville, CA 92392-2310
 760.245.1661 • Fax 760.245.2022
 www.MDAQMD.ca.gov • @MDAQMD



Throughput Fuel Dispensing Equipment

Failure to respond by 02/29/2020 will result in enforcement action.

Emission year: 2019

Fill out sections in gray and return to
Mojave Desert Air Quality Management District
 at the address listed at the top of this document,
 or email completed form to cnavas@mdaqmd.ca.gov

STATION NAME: <u>Genesis Solar, LLC</u>	COMPANY NUMBER: <u>1884</u>	FACILITY NUMBER: <u>3137</u>	DISTRICT PERMIT NUMBER: <u>N011068</u>
STATION ADDRESS: <u>11995 Wiley Wells Rd</u>	CITY: <u>Blythe</u>	STATE: <u>CA</u>	ZIP: <u>92225</u>
TELEPHONE NUMBER: <u>760-831-2651</u>	EMAIL ADDRESS: <u>charlyn.mosley@nec.com</u>		

TYPE OF FUEL DISPENSED:	TOTAL GALLONS DISPENSED IN 2018:
<input checked="" type="checkbox"/> Gasoline	<u>CWM 4,884</u> <u>12324.0</u>
<input checked="" type="checkbox"/> Diesel fuel	<u>CWM 4,337</u> <u>10520.3</u>
<input type="checkbox"/> Propane	
<input type="checkbox"/> Aviation gas	
<input type="checkbox"/> Ethanol	
<input type="checkbox"/> Racing fuel	

CERTIFICATION	
I, <u>ERIC PREHER</u> , a responsible official of	
<u>GENESIS SOLAR</u> , hereby certify, based upon information and	
belief formed after reasonable inquiry, that the above information is true, accurate and	
complete. Executed this <u>25th</u> day of <u>FEB</u> , <u>GENESIS</u> at	
<u>RIVERSIDE CALIFORNIA</u>	
<u>[Signature]</u>	<u>ERIC PREHER GENERAL MANAGER</u>
SIGNATURE	NAME AND TITLE

For questions or assistance, call 760.245.1661, ext. 4040

Section 10

AQ-SC-6 (Vehicle and Equipment Fleet)

At least 30 days prior to the start commercial operation, the project owner shall submit to the CPM a copy of the plan that identifies the size and type of the on-site vehicle and equipment fleet and the vehicle and equipment purchase orders and contracts and/or purchase schedule

Response: Below is the current Genesis Vehicle and Equipment List.

AQ-SC-6 Genesis Vehicle and Equipment List

Quantity	Description	Detailed Description	Manufacturer's VIN/SERIAL NUMBER	Plant VIN
1	Chevrolet CK 15743 Silverado 15	GM Vehicle	3GCUKNEC2GG351350	PGM
1	2013 Ford F-150 4WD SuperCrew 145" XL (W1E)	PM Vehicle	1FTFW1EF4DKF10955	PM
1	2013 Ford F-150 2WD SuperCrew 145" XL (W1C)	Admin	1FTEW1CM6DKF10954	VAD-1
3	2013 Ford F-150 2WD Reg Cab 126" XL (F1C)	PA / Ops Spec / Maint Spec / Env	1FTMF1CMXDKF05400 1FTMF1CM1DKF05401 1FTMF1CM7DKF05404	VPL-1 VPL-2 VPL-3
4	2013 Ford F-150 2WD Reg Cab 126" XL (F1C)	Production Team - Power Block	1FTMF1CM3DKF05402 1FTMF1CM3DKF05397 1FTMF1CM5DKF05398	VPB-2 VPB-3 VPB-4
3	2013 Ford F-150 2WD Reg Cab 126" XL (F1C)	Production team - Solar Field Patrol & Maintenance	1FTMF1CM5DKF05403 1FTMF1CM9DKF05405 1FTMF1CM1DKF05396	VSF-1 VSF-2 VSF-3
1	2013 Ford super Duty F-350 DRW 2WD Reg Cab 141" WB 60" CA XL (F3G) w/Compressor	Production Team Equipment Service		VSRV-1
3	2013 Ford Super Duty F-250 SRW 2WD Reg Cab 137" XL (F2A)	Production Team - Plant Maintenance	1FDBF2A66DEB58109 1FDBF2ADEB58107	VSRV-2 VSRV-3 VSRV-4
2	2013 Ford super Duty F-350 DRW 2WD Reg Cab 141" WB 60" CA XL (F3G) w/Welder	Production Team - Plant Welding & Maintenance		VW-1 VW-2
1	2013 Ford Super Duty F-450 DRW 2WD Reg Cab 165" WB 84" CA XL (F4G)	Service Truck		VSRV-5
2	2013 CT660S SBA 6x4 (CF7AA) 4500 Gallon Water Deluge Trucks	Deluge Truck		MWT-1 MWT-2
2	HTF Evacuation Trucks		2NP2HJ7X8EM224954	ET-1

1	Backhoe Caterpillar 420F Extendable Boom Four Wheel Drive	Underground repair		
1	CAT Model: 259B3 Compact Track Loader	Grade repair		

Section 11

BIO-2 Designated Biologists Duties

Verification: *The Designated Biologist shall provide copies of all written reports and summaries that document biological resources compliance activities in the Monthly Compliance Reports submitted to the CPM (Construction is now over and monthly reports have ceased since 2014). If actions may affect biological resources during operation a Designated Biologist shall be available for monitoring and reporting. During Project operation, the Designated Biologist shall submit record summaries in the Annual Compliance Report unless his or her duties cease, as approved by the CPM.*

Response: The Designated Biologists is on an on call basis. CEC approved Designated Biologist resumes are shown below.

Matthew Martin

Designated Biologist

Matthew Martin is a wildlife biologist with more than 10 years' professional experience as a biological monitor, specializing in surveying, environmental compliance, and special status species mitigation. He has worked on projects throughout the United States for a variety of clients, including solar energy companies and the U.S. military.

Project Experience

Solar Field Surveying and Monitoring, Dudek. Designated biologist on a several thousand acre solar field (Blythe solar field) with oversight and management of multiple biologists and construction crews. Lead survey and monitoring efforts for desert kit fox, American badger, nesting birds, burrowing owls, Mojave fringe toed lizards, and desert tortoise. Followed agency documentation for the monitoring and mitigation practices of special status species with special attention to desert kit fox (*Vulpes macrotis*). Led efforts for environmental compliance with emphasis on communication of mitigation standards to construction

crews concerning air (dust, emissions) and water quality (spills).

Independent Biological Monitoring Projects, Chambers Group. Performed Desert tortoise and Mojave fringe toed surveys and monitoring on military base (Ft. Irwin) during AT&T cell tower expansion. Through proper communication and education, maintained biological and environmental compliance amongst construction staff in accordance with Army, BLM, USFWS, and CDWF standards. Helped instruct other project biologists in proper survey and monitoring procedure to maintain the compliance measures in accordance with the Biological Opinion. Performed survey and relocation work for protected cacti species. Herpetological Monitoring Projects, Herpetological Associates Inc. Sole project biologist in field oversight of special status species mitigation. Performed biological mitigation practice through construction monitoring for protected species including the Timber rattlesnake (*Crotalus horridus*). Educate

and relay protected species and environmental information to construction personnel in order to maintain compliance. Report writing for both daily basis compliance of environmental regulation/

biological observations and weekly client reports of observations and worker compliance. Permitted to handle/relocate state protected Timber rattlesnakes. Wildlife Field Biology Projects, Applied Biological Consulting. Field Contact Representative (FCR) and field biologist for large scale power line transmission line construction projects (DPV-2/ Red Bluff

Substation) in which biological, environmental, regulatory knowledge was offered to both fellow biologists and contractors. Conducted biological surveys in southern California for the protected flora and fauna including federally protected desert tortoise (*Gopherus agassizii*), Coachella Valley fringe-toed lizard (*Uma inornata*) and Coachella Valley milk vetch (*Astragalus lentiginosus* var. *coachellae*). Performed biological mitigation practice through construction monitoring for state and Federally protected species (flora and fauna). Authorized (USFWS, BLM, CDFW) to handle/relocate desert tortoise for both DPV-2 and Red Bluff projects.

Botanical Surveys/Monitoring, SNEI. Served as senior biologist. Project lead in supervision of several biologists on Searchlight wind farm biological survey with sampling for the following: Desert tortoise, Gila monster, Chuckwalla, Burrowing owl, with special attention to Golden eagles and Bighorn sheep.

Performing botanical surveys/monitoring for protected species within the Mojave Desert including *Eriogonum corymbosum*, *Artocomecon californica* and native cacti and yucca. Through construction monitoring and USFWS authorization, helped with the mitigation and protection of the federally protected Desert tortoise (*Gopherus agassizii*). Teaching, training, and relaying information of native/invasive Mojave desert flora, fauna, and environmental regulation of species thereof, to both contractors and trainee biologists. Data collection from Anabat systems for future wind farm site. Report writing for both daily bases compliance of environmental regulation/ biological observations and final project results.

New York Environmental Projects, HDR Inc. Tracking, capturing, and tagging Timber rattlesnakes (*Crotalus horridus*) via radio telemetry and entering the consequent data into Microsoft Access. Seeking out, identifying on sight and cataloging multiple avian species resident on NYC reservoirs and watershed properties with special emphasis on problematic waterfowl. Catching, identifying and taking measurements on different fish and invertebrate species on the Raritan River during fisheries sampling. Gowanus Superfund site study: Fisheries survey (fyke nets, trawl nets, minnow, crab, fish traps), water quality sampling, Air monitor (SUMMA canisters, PAH pumps).

Zoological Projects, University of Wyoming. Served as research assistant. For research project studying the digestive efficiency and food processing rate of the Komodo Dragon (*Varanus komodoensis*), prepared specialized diet including indigestible markers to differentiate composition of sequential food moieties; obtained residual energy levels in waste matter by computerized bomb calorimeter analysis; from varied samples, calculated and compared waste matter heat of combustion, energy conversion, and digestive efficiency values with use of MS Excel. For research project studying physiological characteristics of prairie dogs in hibernation through gradients in residual waste matter energy content between active and hibernating subjects, analyzed graphs for heart rate trends/ discrepancies of White tailed and Black tailed prairie dogs in hibernacula.

Specialized Training

- Flat tailed horned lizard (*Phrynosoma mcallii*) survey and monitoring training

Amy Anderson

Designated Biologist

Amy Anderson has more than 7 years' experience conducting biological surveys and onstruction monitoring. She has extensive experience with large and complex environmental

and biological compliance programs with demanding construction schedules. She has onducted desert tortoise (*Gopherus agassizii*) clearance surveys, monitoring, and reporting and has more than 2,500 hours of logged experience with the species. Additionally, she has been approved by the U.S. Fish and Wildlife Service (USFWS) as an authorized desert tortoise biologist and served as an authorized tortoise handler on Southern California Edison's (SCE) Water Valley System Project. In addition to her desert tortoise experience, she is experienced with monitoring of sensitive mammals and birds, including burrowing owl (*Athene cunicularia*), nesting birds, and plants.

Project Experience

Energy

McCoy Solar Energy Project, McCoy Solar LLC, Blythe, California. As designated biologist and authorized desert tortoise handler, was responsible for leading and maintaining all aspects of biological resources, environmental compliance, and construction monitoring for the construction of the main access road, the distribution line, and the transmission line. This included determining staffing needs; assigning staffing; and corresponding with the client, contractors, and project management. Led multi-faceted surveys, including desert tortoise, desert kit fox (*Vulpes macrotis*), American badger (*Taxidea taxus*), burrowing owl, and nesting birds. Led efforts to excavate and collapse one C3 desert tortoise borrow. Supported solar field construction and maintained biological resources, including leading desert kit fox management, hazing, and den excavation and collapse efforts.

Blythe Solar Power Project, Blythe Solar LLC, Blythe, California. As designated biologist and authorized desert tortoise handler, was responsible for leading and maintaining all aspects of biological resources, environmental compliance, and construction monitoring for the construction of both Unit 1 and Unit 2 of the solar farm. This included determining staffing needs; assigning staffing; and corresponding with the client, contractors, and project management. Led multi-faceted surveys, including desert tortoise, desert kit fox, burrowing owl, and nesting birds. Led efforts to excavate and collapse numerous desert kit fox dens. Efforts included passive hazing, camera monitoring, and scoping, in an effort to confirm the status of the den prior to collapsing.

Relevant Previous Experience

East Kern Wind Resource Area Project, Kern County, California. As lead biological construction monitor and authorized desert tortoise handler, was responsible for the biological compliance monitoring and completing preconstruction clearance, sweep surveys, and daily reporting. Also conducted multifaceted surveys including burrowing owl, raptors, nesting birds, ringtail

(*Bassariscus astutus*), desert kit fox, American badger, Mohave ground squirrel (*Xerospermophilus mohavensis*), and rare plants.

Southern California Gas Lines 235, 3000, and 4000, Needles, California. Conducted pre-construction clearance surveys, construction monitoring, and post-construction surveys for the duration of the repairs made along several pipelines. Handled 27 desert tortoises for relocation and relocated other reptiles (including rattlesnakes) and rodents found on the project sites. A total of 220 days of monitoring construction activities were necessary pipeline repairs. Monitoring activities included fence installation and removal, land clearance, conducting environmental training of the crews, and road monitoring. Also conducted multi-faceted surveys including burrowing owl, raptors, nesting birds, American badger, desert kit fox, Mohave ground squirrel, and rare plants.

Water Valley/Sandlot Project, SCE, San Bernardino County, California. As lead biological construction monitor and authorized desert tortoise handler, provided on-call desert tortoise services for the project. Also responsible for the biological compliance monitoring for assigned project segment, which largely included telecommunications components. Completed pre-construction clearance, sweep surveys, daily reporting, and provided Worker Environmental Awareness Program (WEAP) training, as needed. Also conducted multi-faceted surveys that included burrowing owl, raptors, nesting birds, American badger, desert kit fox, Mohave ground squirrel, and rare plants.

Burlington Northern Santa Fe Railroad (BNSF) Emergency Permitting, Needles, California. Worked for five days as lead desert tortoise biologist and biological construction monitor and four days as an approved desert tortoise handler and biological construction monitor for emergency repair work on BNSF railways that were damaged during flooding. Responsible for the biological compliance monitoring and completed preconstruction clearance, sweep surveys, and daily reporting.

Moapa RES Solar Surveys, Nevada Biological Consulting LLC, Moapa, Nevada. Conducted presence/absence surveys for desert tortoise at proposed solar plant site.

McCoy Solar Surveys, AMEC, California. Conducted five days of presence/absence surveys for desert tortoise at proposed solar plant site.

Grey Butte Runway Expansion and JBWD, Circle Mountain Biological Consultants, El Mirage, California. Conducted presence/absence and pre-construction clearance surveys and construction monitoring associated with runway expansion activities and well drilling. Monitoring duties occurred during all land grubbing and road-work in tortoise habitat.

Lane Mountain Milkvetch Surveys, QinetiQ, California. Conducted surveys associated with the long-term monitoring of Lane Mountain milkvetch (*Astragalus jaegerianus*). Collected, compiled, entered, and assisted with analyzing data.

Utility Forester Project, WECL, Eureka, California. Independently patrolled Pacific Gas & Electric (PG&E) power lines identifying necessary maintenance required to ensure reliable and safe service in heavily forested areas of Northern California. Identified trees and brush that required trimming or removal, prescribed type of trimming necessary, identified hazard trees, directed tree crews to trees in need of work, and entered all data into handheld computer. Interacted with property owners to gain permission for prescribed work.

Fort Irwin Expansions, Construction Sites, and Lane Mountain Milkvetch Surveys, ITS Corporation, Fort Irwin, California. Conducted presence/absence pre-construction and pre-training clearance surveys and construction monitoring. Construction activities were linear in nature and were associated with the installation of a fiber optic network. Also conducted surveys associated with long-term monitoring of Lane

Mountain milkvetch. Collected, compiled, entered, and assisted in analyzing data.

Mitsubishi Cement Plant Mitigation Surveys, San Bernardino National Forest, California. Conducted five days of surveying for sensitive plant species, with an emphasis on Parish's daisy (*Erigeron parishii*), Cushenbury buckwheat (*Eriogonum ovalifolium*), Cushenbury milkvetch (*Astragalus albens*), Cushenbury oxytheca (*Oxytheca parishii* var. *goodmaniana*), and San Bernardino Mountain monkeyflower (*Mimulus exiguus*), to identify acceptable mitigation sites.

Specialized Training

- Standard Desert Tortoise Training and Education, 2005. Fort Irwin, California
- Introduction to Desert Tortoise Surveying, Monitoring and Handling Techniques Workshop, 2010.

Ridgecrest, California.

Section 13

BIO-4

Verification: *The Designated Biologist shall submit in the Monthly Compliance Report to the CPM copies of all written reports and summaries that document biological resources compliance activities, including those conducted by Biological Monitors. If actions may affect biological resources during operation a Biological Monitor, under the supervision of the Designated Biologist, shall be available for monitoring and reporting. During Project operation, the Designated Biologist shall submit record summaries in the Annual Compliance Report unless their duties cease, as approved by the CPM.*

Response: Continued Designated Biologists duties ceased as approved by the CPM. On call status of the Designated Biologists remains effective.

Section 14

BIO-6

Verification: *At least 30 days prior to start of construction-related ground disturbance the Project owner shall provide to the CPM for review and approval, and to the USFWS and CDFG for review, a copy of the final WEAP and all supporting written materials and electronic media prepared or reviewed by the Designated Biologist and a resume of the person(s) administering the program.*

The Project owner shall provide in the Monthly Compliance Report the number of persons who have completed the training in the prior month and a running total of all persons who have completed the training to date. At least 10 days prior to construction-related ground disturbance activities the Project owner shall submit two copies of the CPM-approved final WEAP.

Training acknowledgement forms signed during construction shall be kept on file by the Project owner for at least six months after the start of commercial operation. Throughout the life of the Project, the WEAP shall be repeated annually for permanent employees, and shall be routinely administered within one week of arrival to any new construction personnel, foremen, contractors, subcontractors, and other personnel potentially working within the Project area. Upon completion of the orientation, employees shall sign a form stating that they attended the program and understand all protection measures. These forms shall be maintained by the Project owner and shall be made available to the CPM, BLM, USFWS and CDFG and upon request. Workers shall receive and be required to visibly display a hardhat sticker or certificate that they have completed the training.

During Project operation, signed statements for operational personnel shall be kept on file for six months following the termination of an individual's employment.

Response: Below is the signed orientation/WEAP training for 2019.

SMS 241 Contractor Management



PGD Contractor & Visitor Orientation Acknowledgement

I have attended the *Power Generation Division (PGD) Contractor & Visitor Orientation* and *Site-Specific Contractor & Visitor Orientation*, and acknowledge I shall fully conform with all safety, health, regulatory, and NextEra Energy (NEE) contract work requirements; my signature below affirms I understand that non-conformance to these requirements are sufficient grounds for immediate removal from the work and/or termination of the contract.

NEER Site: SGN Contract Coordinator: Mike Myers

Contractor/Visitor Company: WWS Date: 3-11-19

Name <u>Arnell Hernandez</u>	Signature <u>[Signature]</u>
Name <u>Leonard Crimes</u>	Signature <u>[Signature]</u>
Name	Signature
Name	Signature
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SMS 241 Contractor Management

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NEER Site: GMS's LLC. Contract Coordinator: A. Nugent

Contractor/Visitor Company: All-Cal Date: 5.28.2019

Name <u>Tim Wheeler</u>	Signature <u>Tim Wheeler</u>
Name	Signature
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SMS 241 Contractor Management

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NEER Site: Genesis Solar Contract Coordinator: Neptune Maree

Contractor/Visitor Company: Atlas Copco Date: 14 Nov 2019

Name	Signature
<u>Silvano Reyes</u>	<u>[Signature]</u>
Name	Signature
Name	Signature
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SMS 241 Contractor Management

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NEER Site: Exxon's LLC Contract Coordinator: A. Nguyen

Contractor/Visitor Company: Joshua Gredley/B&H Date: 12.18.19

Name <u>Kevin Lee</u>	Signature <u></u>
Name	Signature
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I have attended the *Power Generation Division (PGD) Contractor & Visitor Orientation* and *Site-Specific Contractor & Visitor Orientation*, and acknowledge I shall fully conform with all safety, health, regulatory, and NextEra Energy (NEE) contract work requirements; my signature below affirms I understand that non-conformance to these requirements are sufficient grounds for immediate removal from the work and/or termination of the contract.

Contractor/Visitor Company: Joshua Gadiu/B&L Date: 12.9.19

[illegible]



SMS 241 Contractor Management

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NEER Site: Genesis Contract Coordinator: A. Reyes

Contractor/Visitor Company: Jashwanprakash Date: 12.4.19

Name	Signature
<u>Omara Orzco</u>	<u>[Signature]</u>
Name	Signature
Name	Signature
Name	Signature
Name	Signature
Name	Signature
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PGD Contractor & Visitor Orientation Acknowledgement

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NEER Site: Genesis Solar Contract Coordinator: Joe Bistline

Contractor/Visitor Company: B & L Date: 1-7-2019

Name	Signature
<u>JOSE MIRANDA</u>	<u>[Signature]</u>
Name	Signature
<u>Alberto Limon</u>	<u>Alberto Limon</u>
Name	Signature
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PGD Contractor & Visitor Orientation Acknowledgement

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NEER Site: Genesis Solar Contract Coordinator: Joe Bistline

Contractor/Visitor Company: B+L Date: 1-14-2019

Name <u>Grant Miller</u>	Signature <u>Grant Miller</u>
Name	Signature
Name	Signature
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SMS 241 Contractor Management

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NEER Site: Genesis Solar Contract Coordinator: Joe Bistline

Contractor/Visitor Company: B&L/Spartan Date: 11-26-19

Name <u>Jim Bray</u>	Signature <u>Jim Bray</u>
Name	Signature
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SMS 241 Contractor Management

PGD Contractor & Visitor Orientation Acknowledgement

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NEER Site: Genesis Solar Contract Coordinator: Joe Bistline

Contractor/Visitor Company: B&L Date: 12-2-2019

Name <u>Christopher Uier</u>	Signature <u>[Signature]</u>
Name	Signature
Name	Signature
Name	Signature
Name	Signature
Name	Signature
Name	Signature
Name	Signature
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SMS 241 Contractor Management



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NEER Site: Genesis Solar Contract Coordinator: Joe Bistline

Contractor/Visitor Company: B&L Date: 11-25-19

Name <u>BRAD ABERLE</u>	Signature <u>[Signature]</u>
Name <u>FERNANDO MENDOZA M.</u>	Signature <u>[Signature]</u>
Name <u>Alberto Limon</u>	Signature <u>[Signature]</u>
Name <u>Ryan Owensby</u>	Signature <u>[Signature]</u>
Name <u>Cady Johnson</u>	Signature <u>[Signature]</u>
Name <u>Matthew Craft</u>	Signature <u>[Signature]</u>
Name <u>Camin Smith</u>	Signature <u>[Signature]</u>
Name	Signature
Name	Signature
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Name	Signature
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Name	Signature

SMS 241 Contractor Management

PGD Contractor & Visitor Orientation Acknowledgement

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NEER Site: Greene's Contract Coordinator: A. Wagon

Contractor/Visitor Company: B&L Construction Date: 5.13.2019

Name	Signature
<u>Fernando Mendoza Nagana</u>	<u>[Signature]</u>
Name	Signature
<u>Carlos Samuel Jimeno Lopez</u>	<u>[Signature]</u>
Name	Signature
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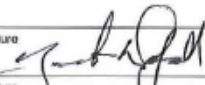
SMS 241 Contractor Management

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NEER Site: Genesis Solar Contract Coordinator: Chris Kretz / Averell Rose

Contractor/Visitor Company: Basin Value Date: 1-10-19

Name <u>ERICK DELGADILLO</u>	Signature 
Name <u>Sal Martinez</u>	Signature <u>Salvador Martinez</u>
Name	Signature
Name	Signature
Name	Signature
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SMS 241 Contractor Management

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NEER Site: Genesis Contract Coordinator: Josh Herndon

Contractor/Visitor Company: Basin Valve Date: 3-20-19

Name <u>Chris Bordewich</u>	Signature <u>Chris Bordewich</u>
Name <u>Herman Lytle</u>	Signature <u>Herman Lytle</u>
Name	Signature
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SMS 241 Contractor Management

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NEER Site: Genesis Solar Contract Coordinator: Joe Bistline

Contractor/Visitor Company: Basin Valve Date: 5-14-2019

Name <u>CHARLIE OATNEBROS</u>	Signature <u>[Signature]</u>
Name	Signature
Name	Signature
Name	Signature
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SMS 241 Contractor Management

PGD Contractor & Visitor Orientation Acknowledgement

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NEER Site: Genesis Contract Coordinator: _____

Contractor/Visitor Company: Barton Date: 5/14/19

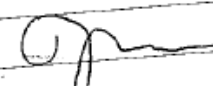
Name <u>Steven Robles</u>	Signature <u>[Signature]</u>
Name <u>Tennech Marcelli</u>	Signature <u>[Signature]</u>
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NEER Site: Griggs's Solar Contract Coordinator: DTL - on shift
Contractor/Visitor Company: LB plumbing Date: 2-22-2019

Name <u>John Bush</u>	Signature 
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SMS 241 Contractor Management



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NEER Site: Genese Solar Contract Coordinator: Carl

Contractor/Visitor Company: Circlewood Service Date: 2-7-19

Name <u>Thomas P Tudem</u>	Signature <u>[Signature]</u>
Name	Signature
Name	Signature
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NEER Site: Genar-5 Contract Coordinator: Shadon

Contractor/Visitor Company: Desert Fire Bxt. CO. Date: 2-12-19

Name	Signature
<u>Jason Buettell</u>	<u>[Signature]</u>
Name	Signature
<u>Teran Buettell</u>	<u>[Signature]</u>
Name	Signature
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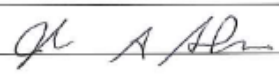
SMS 241 Contractor Management

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NEER Site: GENESS Contract Coordinator: WHITTLE

Contractor/Visitor Company: EATON Date: 2/26/19

Name	Signature
JOHN GLASS	
Name	Signature
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SMS 241 Contractor Management

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NEER Site: GENESIS Contract Coordinator: WATTLE

Contractor/Visitor Company: EATON Date: 1-28-2019

Name <u>BRIAN MARSH</u>	Signature <u>BA-M</u>
Name <u>Peter Tamayo</u>	Signature <u>Peter Tamayo</u>
Name <u>Gustavo Torales</u>	Signature <u>Gustavo Torales</u>
Name <u>Raymundo Lopez-Santiago</u>	Signature <u>Raymundo Lopez-Santiago</u>
Name	Signature
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SMS 241 Contractor Management

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NEER Site: Genesis Contract Coordinator: Eric Whittle

Contractor/Visitor Company: Edison & PECS Date: 5-20-19

Name <u>Richard Herrera</u>	Signature <u>[Signature]</u> (Edison)
Name <u>Devin Kaufman</u>	Signature <u>[Signature]</u> (PECS)
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SMS 241 Contractor Management

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NEER Site: SGN Contract Coordinator: Averell Rose

Contractor/Visitor Company: Empire Cat Date: 12-11-19

Name <u>Guillermo Magaña</u>	Signature
Name	Signature
Name	Signature
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Name	Signature
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SMS 241 Contractor Management



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NEER Site: Genesis Solar Contract Coordinator: Joe Bistline

Contractor/Visitor Company: FlowsERVE Date: 12-3-2019

Name <u>Robert Griffith</u>	Signature <u>[Signature]</u>
Name	Signature
Name	Signature
Name	Signature
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SMS 241 Contractor Management

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NEER Site: Genesis Contract Coordinator: Gossett
Contractor/Visitor Company: IRBC Date: 4/3/19

Name <u>Cesar Tam</u>	Signature <u>Cesar Tam</u>
Name <u>Tom Donofrio</u>	Signature <u>Tom Donofrio</u>
Name	Signature
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SMS 241 Contractor Management



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NEER Site: Genesis Solar Contract Coordinator: Joe Bistline

Contractor/Visitor Company: IRBC Date: 10-15-2019

Name <u>Jim Reichert</u>	Signature <u>[Signature]</u>
Name <u>TOM DONOFRO</u>	Signature <u>[Signature]</u>
Name	Signature
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SMS 241 Contractor Management

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NEER Site: Genesis Solar Contract Coordinator: Joe Birtline

Contractor/Visitor Company: Industrial Refrigeration & Boiler Company Date: 9-25-2019

Name <u>Eric Cordos Jr.</u>	Signature <u>Eric Cordos Jr.</u>
Name	Signature
Name	Signature
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Name	Signature
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NEER Site: Genito Contract Coordinator: Angus
Contractor/Visitor Company: Konecranes Date: 1.16.19

Name <u>Josh Sexton</u>	Signature <u>[Signature]</u>
Name	Signature
Name	Signature
Name	Signature
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SMS 241 Contractor Management

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NEER Site: _____ Contract Coordinator: _____

Contractor/Visitor Company: Konecranes Date: 4-4-19

Name David Shanor	Signature 
Name	Signature
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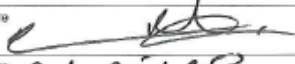
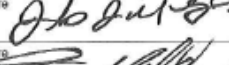

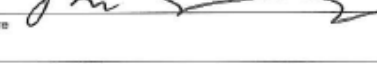
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NEER Site: Genesis Solar Contract Coordinator: Joe Bistline

Contractor/Visitor Company: Modular Systems Inc. Date: 2-5-2019

Name <u>Cesar Garcia</u>	Signature 
Name <u>JACOB JIMENEZ</u>	Signature 
Name <u>Danny Maldonado</u>	Signature 
Name <u>Jonny Michael Sanchez</u>	Signature 
Name	Signature
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SMS 241 Contractor Management



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NEER Site: Genesis Solar Contract Coordinator: Joe Botline

Contractor/Visitor Company: San Diego Fluid Systems Date: 10/25/19

Name <u>Devon McCauley</u>	Signature <u>[Signature]</u>
Name	Signature
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SMS 241 Contractor Management

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NEER Site: Genesis Contract Coordinator: LINDA HENNER

Contractor/Visitor Company: SCUERO Date: 12-17-19

Name	Angel Castillo	Signature	Angel Castillo
Name	Andy Alvarez	Signature	
Name	Rene Lopez	Signature	Rene Lopez
Name	Jorge L Casarez	Signature	Jorge L Casarez
Name	Justin Rooney	Signature	Justin Rooney
Name		Signature	
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SMS 241 Contractor Management

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NEER Site: Genesis Contract Coordinator: _____

Contractor/Visitor Company: United Right of Way Date: 11/16/19

Name <u>Kris Lukasik</u>	Signature <u>Kris Lukasik</u>
Name <u>Jason Klinkbail</u>	Signature <u>[Signature]</u>
Name <u>Owen Frocweiss</u>	Signature <u>[Signature]</u>
Name <u>Kyle Zimmerman</u>	Signature <u>[Signature]</u>
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NEER Site: Genesis Solar Contract Coordinator: A. Negeen

Contractor/Visitor Company: WESTERN PUMP INC Date: 3/7/19

Name <u>JAIME SOCANO</u>	Signature <u>[Signature]</u>
Name	Signature
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NEER Site: SGN Contract Coordinator: M. Ke Myers

Contractor/Visitor Company: WWS Date: 3-11-19

Name <u>Arnel Hernandez</u>	Signature <u>[Signature]</u>
Name <u>Leonard Crimes</u>	Signature <u>[Signature]</u>
Name	Signature
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Section 14

BIO-13 Raven Management

Month	Total Ravens Observed During Nest Surveys	Observed Behaviors	Weather Conditions
1/28/2019	2	Cora were flying around the Administration Building landing on the top roof area and peering at parking lot. Environmental Specialist investigated the roof, no nest were found.	The average for the month of January was; 50 F, winds mind at 5 MPH, clear No precipitation.
2/25/2019	2	Cora sighted in solar field near the parking lot. No nest observed.	The average for the month of February was; 65 F, wind speed 5-8 MPH, mostly clear with no precipitation.
3/18/2019	1	Cora sighted at Unit 2 power block. Flying over the power block and landing at the clear area south of the block.	The average for the month of March was; 82 F, wind speed 0 to 5 mph, mostly clear with 15% clouds and no precipitation.
4/15/2019	2	2 Cora were sighted at the Admin Building parking lot. They were in the shade, no obvious activity.	The average for the month of April was; 89 F, wind speed 0 to 5 mph, mostly clear with 5% clouds and no precipitation.
5/20/2019	0	No CORA sightings	The average for the month of May was; 94 F, wind speed 0 to 5 mph, mostly clear with 5% clouds and no precipitation.

6/17/2019	0	No CORA sightings	The average for the month of June was; 107 F, wind speed 0 to 5 mph, mostly clear with 0% clouds and no precipitation.
7/8/2019	1	At parking lot near admin building	The average for the month of July was; 110 F, wind speed 0 to 5 mph, mostly clear with 0% clouds and no precipitation.
8/21/2019	1	At the employee parking facility in shade. Hopping from under cars and in shade from building	The average for the month of August was; 111 F, wind speed 0 to 5 mph, mostly clear with 0% clouds and no precipitation.
9/19/2019	0	No CORA Sightings.	The average for the month of September was; 104 F, wind speed 0 to 5 mph, mostly clear with 0% clouds and no precipitation.
10/18/2019	1	Unit 1 solar field. Flying overhead near perimeter fencing.	The average for the month of October was; 95 F, wind speed 0 to 5 mph, mostly clear with 0% clouds and no precipitation.
11/3/2019	0	No CORA Sightings.	The average for the month of November was; 80 F, wind speed 0 to 5 mph, mostly clear with 0% clouds and no precipitation.
12/2/2019	0	No CORA Sightings.	The average for the month of December was; 95 F, wind speed 0 to 5 mph, mostly clear with 0% clouds and no precipitation.

Section 15

BIO-16 Avian Protection Plan

The Project owner shall prepare and implement an Avian Protection Plan to monitor the death and injury of birds from collisions with facility features such as transmission lines, reflective mirror-like surfaces and from heat, and bright light from concentrating sunlight. The Project owner shall use the monitoring data to inform and develop an adaptive management program that would avoid and minimize Project-related avian impacts. Project-related bird deaths or injuries shall be reported to the CPM, CDFG, and USFWS. The CPM, in consultation with CDFG and USFWS, shall determine if the Project-related bird deaths or injuries warrant implementation of adaptive management measures contained in the Avian Protection Plan. The study design for the Avian Protection Plan shall be approved by the CPM in consultation with CDFG and USFWS, and, once approved, shall be incorporated into the project's BRMIMP and implemented.

Verification:

No later than January 31st of every year the Annual Report shall be provided to the CPM, CDFG, and USFWS. Quarterly reporting shall continue until the CPM, in consultation with CDFG and USFWS determine whether more years of monitoring are needed, and whether mitigation and adaptive management measures are necessary. After two years of data collection the project owner or contractor shall prepare a report that describes the study design and monitoring results of the Avian Protection Plan. The report shall be submitted to the CPM, CDFG and USFWS no later than the third year after onset of Project operation.

Response: BBCS monitoring is now complete. Reporting through the USFWS Special Purpose Utility Permit (SPUT) Permit continues as avian mortalities are found incidentally. The following SPUT report is for the reporting year 2019.

Genesis	Solar thermal trough	MB44900B-0	N/A	021119-JLW-01	rock pigeon	Columbia livia	ROPI	1	adult	male	incidental find	
Genesis	Solar thermal trough	MB44900B-0	N/A	030419-JLW-01	brown-headed cowbird	Molothrus ater	BHCO	1	unknown	unknown	incidental find	
Genesis	Solar thermal trough	MB44900B-0	N/A	031319-JWL-01	great-tailed grackle	Quiscalus mexicanus	GTGR	1	adult	unknown	incidental find	

Genesis	Solar thermal trough	MB44900B-0	N/A	042919-JW-01	red-breasted merganser	Mergus serrator	RBME	1	adult	male	incidental find	
Genesis	Solar thermal trough	MB44900B-0	N/A	052018-JW-01	mourning dove	Columba livia	MODO	1	juvenile	unknown	incidental find	
Genesis	Solar thermal trough	MB44900B-0	N/A	082019-DPS-01	turkey vulture	Cathartes aura	TUVU	1	juvenile	unknown	incidental find	
Genesis	Solar thermal trough	MB44900B-0	N/A	082019-DPS-02	great blue heron	Ardea herodias	GBHE	1	adult	unknown	incidental find	early-mid Aug 2019
Genesis	Solar thermal trough	MB44900B-0	N/A	082019-DPS-03	brown-headed cowbird	Molothrus ater	BHCO	1	adult	unknown	incidental find	early-mid Aug 2019
Genesis	Solar thermal trough	MB44900B-0	N/A	082019-DPS-04	brown-headed cowbird	Molothrus ater	BHCO	1	unknown	unknown	incidental find	early-mid Aug 2019
Genesis	Solar thermal trough	MB44900B-0	N/A	092019-DPS-01	house finch	Haemorhous mexicanus	HOFI	1	unknown	unknown	incidental find	
Genesis	Solar thermal trough	MB44900B-0	N/A	092019-DPS-02	lesser nighthawk	Chordeiles acutipennis	LENI	1	adult	unknown	incidental find	
Genesis	Solar thermal trough	MB44900B-0	N/A	092019-DPS-03	rock pigeon	Columba livia	ROPI	1	unknown	unknown	incidental find	
Genesis	Solar thermal trough	MB44900B-0	N/A	092019-DPS-04	American kestrel	Falco sparverius	MAKE	1	adult	female	incidental	
Genesis	Solar thermal trough	MB44900B-0	N/A	101419-JLW-01	mourning dove	Quiscalus mexicanus	MODO	1	adult	unknown	incidental	
Genesis	Solar thermal trough	MB44900B-0	N/A	101419-JLW-02	unknown oriole	Unknown	UNOR	1	unknown	unknown	incidental	
Genesis	Solar thermal trough	MB44900B-0	N/A	10242019-BLM-01	mourning dove	Quiscalus mexicanus	MODO	1	unknown	male	incidental	

Section 16

BIO-18 Burrowing Owl Impact Avoidance, Minimization, and Compensation Measures

Verification:

Genesis Solar LLC had no requirements to relocate or mitigate burrowing owls during the construction phase of the facility and compensation measures were completed. As the construction phase of the project is over, and the site has had no burrowing owl siting's or relocation measures arise, Genesis staff request this condition be closed and no further action necessary for future reporting.

Response: Per the condition of certification, the REAT was established and a final report submitted to the CEC in year 2014.

Section 17

BIO-19 Special-Status Plant Impact Avoidance, Minimization and Compensation

Verification: *The Special-Status Plant Impact Avoidance and Minimization Measures shall be incorporated into the BRMIMP as required under Condition of Certification BIO-7.*

Raw GPS data, metadata, and CNDDDB field forms shall be submitted to the CPM within two weeks of the completion of each survey. A preliminary summary of results for the late summer/fall botanical surveys shall also be submitted to the CPM and BLM's State Botanist within two weeks following the completion of the surveys. If surveys are split into more than one period, then a summary letter shall be submitted following each survey period. The Final Summer-Fall Botanical Survey Report, GIS shape files and metadata shall be submitted to the BLM State Botanist and the CPM no less than 30 days prior to the start of ground-disturbing activities. The Final Report shall include a detailed accounting of the acreage of Project impacts to special-status plant occurrences. The draft conceptual Special-Status Plant Mitigation Plan shall be submitted to the CPM for review and approval no less than 30 days prior to the start of ground-disturbing activities.

The Project owner shall immediately provide written notification to the CPM, CDFG, USFWS, and BLM if it detects a State- or Federal-Listed Species, or BLM Sensitive Species at any time during its late summer/fall botanical surveys or at any time thereafter through the life of the Project, including conclusion of Project decommissioning.

No less than 30 days prior to the start of ground-disturbing activities the Project owner shall submit grading plans and construction drawings to the CPM which depict the location of

Environmentally Sensitive Areas and the Avoidance and Minimization Measures contained in Section A of this Condition.

If compensatory mitigation is required, no less than 30 days prior to the start of ground-disturbing activities, the Project owner shall submit to the CPM the form of Security adequate to acquire compensatory mitigation lands and/or undertake habitat enhancement or restoration activities, as described in this condition.

Actual Security shall be provided 7 days prior to start of ground-disturbing activities.

No fewer than 90 days prior to acquisition of compensatory mitigation lands, the Project owner shall submit a formal acquisition proposal and draft Management Plan for the proposed lands to the CPM, with copies to CDFG, USFWS, and BLM, describing the parcels intended for purchase and shall obtain approval from the CPM prior to the acquisition. No fewer than 90 days prior to acquisition of compensatory mitigation lands, the Project owner shall submit to the CPM and obtain CPM approval of any agreements to delegate land acquisition to an approved third party, or to manage compensation lands; such agreement shall be executed and implemented within 18 months of the start of ground disturbance.

No fewer than 30 days after acquisition of the property the Project owner shall deposit the funds required by Section I e above (long term management and maintenance fee) and provide proof of the deposit to the CPM.

The Project owner or an approved third party shall complete the acquisition and all required transfers of the compensation lands, and provide written verification to the CPM of such completion no later than 18 months after the start of Project ground-disturbing activities. If NFWF or another approved third party is being used for the acquisition, the Project owner shall ensure that funds needed to accomplish the acquisition are transferred in timely manner to facilitate the planned acquisition and to ensure the land can be acquired and transferred prior to the 18-month deadline. If habitat enhancement is proposed, no later than six months following the start of ground-disturbing activities, the Project owner shall obtain CPM approval of the final Habitat Enhancement/Restoration Plan, prepared in accordance with Section D, and submit to the CPM or a third party approved by the CPM Security adequate for long-term implementation and monitoring of the Habitat Enhancement/Restoration Plan.

Enhancement/restoration activities shall be initiated no later than 12 months from the start of construction. The implementation phase of the enhancement project shall be completed within five years of initiation. Until completion of the five-year implementation portion of the enhancement action, a report shall be prepared and submitted as part of the Annual Compliance Report. This report shall provide, at a minimum: a summary of activities for the preceding year and a summary of activities for the following year; quantitative measurements of the

Project's progress in meeting the enhancement project success criteria; detailed description of remedial actions taken or proposed; and contact information for the responsible parties.

If a Status and Distribution Study is proposed, the study shall commence no later than six months following the start of ground-disturbing activities. The draft study shall be submitted to the CPM and BLM Botanist for review and approval no more than two years following the start of ground-disturbing activities. The final study shall be submitted no more than 30 months following the start of ground disturbing activities.

If a Distribution Study is implemented as contingency mitigation, the study shall be initiated no later than 6 months from the start of construction. The implementation phase of the study shall be completed within two years of the start of construction.

Within 18 months of ground-disturbing activities, the Project owner shall transfer to the CPM or an approved third party the difference between the Security paid and the actual costs of (1) acquiring compensatory mitigation lands, completing initial protection and habitat improvement, and funding the long-term maintenance and management of compensatory mitigation lands; and/or (2) implementing and providing for the long-term protection and monitoring of habitat enhancement or restoration activities. Implementation of the special-status plant impact avoidance and minimization measures shall be reported in the Monthly Compliance Reports prepared by the Designated Botanist. Within 30 days after completion of Project construction, the Project owner shall provide to the CPM, for review and approval, in consultation with the BLM State Botanist, a written construction termination report identifying how measures have been completed.

The Project owner shall submit a monitoring report every year for the life of the project to monitor effectiveness of protection measures for all avoided special status plants to the CPM and BLM State Botanist. The monitoring report shall include: dates of worker awareness training sessions and attendees, completed

CNDDDB field forms for each avoided occurrence on-site and within 100 feet of the Project boundary off-site, and description of the remedial action, if warranted and planned for the upcoming year. The completed forms shall include an inventory of the special-status plant occurrences and description of the habitat conditions, an indication of population and habitat quality trends.

Response: The annual report from the plant designated botanists, Dr. Alice Karl, is being developed and will be submitted by Dr. Karl directly to the CPM at the California Energy commission. To date, Genesis Solar, LLC has not received the 2019 report after numerous requests.

BIO-14 and the Project Weed Management Plan

Weed monitoring and control has been ongoing and successful. The recommendation by Dr. Karl, the plant designated botanists, is to continue with annual weed control. The official Report has not been submitted by the botanist to date.

BIO-24 and the Project Revegetation Plan

Revegetation Success

The approved revegetation plan required that an assessment be made at the end of Year 2 to determine if additional revegetation efforts will be necessary in Year 3 – specifically, the out planting of nursery grown seedlings - to meet success standards in Year 10. The south side assessment in 2015 concluded that success standards are very likely to be met, and may be exceeded. For the north side, the growth of annuals from minor summer rains in 2015 suggests that soil functioning, water capture and seed capture are sufficient to support restoration, should adequate rain occur. No additional efforts are currently recommended.

Section 18

BIO-21 Evaporation Pond Netting and Monitoring

Verification: No less than 30 days prior to operation of the evaporation ponds the project owner shall provide to the CPM as-built drawings and photographs of the ponds indicating that the bird exclusion netting has been installed. For the first year of operation the Designated Biologist shall submit quarterly reports to the CPM, CDFG, and USFWS describing the dates, durations and results of site visits conducted at the evaporation ponds. Thereafter the Designated Biologist shall submit annual monitoring reports with this information. The quarterly and annual reports shall fully describe any bird or wildlife death or entanglements detected during the site visits or at any other time, and shall describe actions taken to remedy these problems. The annual report shall be submitted to the CPM, CDFG, and USFWS no later than January 31st of every year for the life of the project.

Response: All pond inspections are performed by Genesis staff. See below Table with inspection results. Monthly and Annual USFWS SPUT Permit reporting are completed by WEST and submitted to the CEC, BLM and USFWS.

Weekly Evaporative Pond Monitoring 2019						
Date	Condition of netting?	Weather Conditions	Birds present	Temps		Observer Initials
1/6	Good, no holes	Clear	No Activity	59		CM
1/13	Good, no holes	Clear and windy	No Activity	60		CM
1/20	No holes or tears	Clear and windy	No activity	64		CM
1/27	No holes or tears	partly cloudy	No Activity	68		CM
2/3	No holes or tears	Clear	No Activity	74		CM
2/10	No holes or tears	partly cloudy	No Activity	72		CM
2/17	No holes or tears	partly clooudy	No Activity	60		CM
2/24	No holes or tears	partly cloudy/ windy and slight rain	No Activity	74		CM
3/3	No holes or tears	Clouds in afternoon, windy	Small flock of birds flying south east,	67		CM
3/10	No holes or tears	Scattered clouds	No Activity	67		CM
3/17	No holes or tears	Clear	No Activity	64		CM
3/24	No holes or tears	Clear, wind in afternoon	No Activity	66		CM
3/31	No holes or tears	Windy	No Activity	79		CM
4/7	No holes or tears	Clear	small birds flying south of plant	67		CM
4/14	No holes or tears	Clear	No Activity	84		CM
4/21	No holes or tears	Windy	No Activity	80		CM
4/28	No holes or tears	Cloudy	No Activity	84		CM
5/5	No holes or tears	Partly cloudy and windy	No Activity	93		CM
5/12	No holes or tears	Partly cloudy and windy	No Activity	89		CM

5/19	No holes or tears	Partly cloudy and windy	No Activity	88		CM
5/26	No holes or tears	Clear	No Activity	99		CM
6/2	No holes or tears	partly cloudy, mostly clear	Birds east of plant flying west	108		CM
6/9	No holes or tears	clouds in afternoon	No Activity	112		CM
6/16	No holes or tears	cloudy	No Activity	110		CM
6/23	No holes or tears	Cloudy most of the day	No Activity	112		CM
6/30	No holes or tears	windy	No Activity	119		CM
7/1	No holes or tears	Clear	No Activity	120		CM
7/7	No holes or tears	clear	No Activity	122		CM
7/14	No holes or tears	clear	No Activity	118		CM
7/21	No holes or tears	clear	No Activity	116		CM
		Cloudy, slight rain, windy		114		
7/28	No holes or tears		No Activity			CM
8/4	No holes or tears	clear	No Activity	115		CM
8/11	No holes or tears	clear	No Activity	118		CM
8/18	No holes or tears	clear	No Activity	113		CM
8/25	No holes or tears	clear	No Activity	114		CM
9/1	No holes or tears	clear	No Activity	115		CM
9/8	No holes or tears	clear	No Activity	113		CM
9/15	No holes or tears	clear	No Activity	110		CM
9/22	No holes or tears	windy	Birds on the east flying south east.	108		CM
9/29	No holes or tears	clear	No Activity	100		CM
10/6	No holes or tears	clear	No Activity	104		CM
10/13	No holes or tears	clear	No Activity	98		CM
10/20	No holes or tears	clear	Birds flying overhead to the south	87		CM
10/27	No holes or tears	Windy	No Activity	98		CM
11/3	No holes or tears	windy	No Activity	89		CM
11/10	No holes or tears	cloudy	No Activity	88		CM
11/17	No holes or tears	rain	No Activity	78		CM
12/1	No holes or tears	Cloudy, slight rain, windy	No Activity	63		CM
12/8	No holes or tears	rain	No Activity	63		CM
12/29	No holes or tears	clear	No Activity	67		CM

2019

January	February	March	April	May	June	July	August	September	October	November	December
1	4	4	1	6	3	1	5	2	7	4	2
7	11	11	8	13	10	8	12	9	14	11	9
14	18	18	15	20	17	15	19	16	21	18	16
21	25	25	22	27	24	22	26	23	28	25	
28			29			29		30			

Note: There was no evidence of rips or tears to the netting observed. An annual netting inspection was performed by the vendor and no maintenance was required.



Genesis Solar Evaporation Pond Warranty Inspection Report July 2019.

General: Both South and North Pond can be safely accessed by vehicle or on foot. There appear to be no hazardous conditions that would make the site unsafe to access for inspection.

Findings for inspection of evaporation pond netting installation on July 2019, Genesis Solar, Blythe CA. Inspection was performed by Neil Shaw, Agrination.

South Pond:

- 1) Poles: All poles and pole foundations appear to be stable and no deterioration is observed. Pole and hardware oxidation is observed to be minimal and no rust of concern is observed. Poles and pole hardware are deemed stable with no maintenance required at this time.
- 2) Cabling: All cables and cable hardware appear in good condition. No loss of tension or corrosion is observed. All Cables and Cable hardware is deemed stable and require no maintenance at this time.
- 3) Canopy and Side Netting: All Netting appear to be in good condition. No visible tears, projectile damage or fabric deterioration is observed. UV resistance appear to be good. Expected and normal hardening of the fabric is observed. Fasteners that attach netting to structure is in good condition with no failures observed. The netting canopy and side netting is deemed stable and require no maintenance at this time.
- 4) Internal canopy anchor cables were not inspected as partially submerged and not accessible.
- 5) Gates and Access points. All gates were observed to open and close easily and seal well as required. All gates are deemed stable and require no maintenance at this time.

North Pond

- 1) Poles: All poles and pole foundations appear to be stable and no deterioration is observed. Pole and hardware oxidation is observed to be minimal and no rust of concern is observed. Poles and pole hardware are deemed stable with no maintenance required at this time.
- 2) Cabling: All cables and cable hardware appear in good condition. No loss of tension or corrosion is observed. All Cables and Cable hardware is deemed stable and require no maintenance at this time.
- 3) Canopy and Side Netting: All Netting appear to be in good condition. No visible tears, projectile damage or fabric deterioration is observed. UV resistance appear to be good. Expected and normal hardening of the fabric is observed. Fasteners that attach netting to structure is in good condition with no failures observed. The netting canopy and side netting is deemed stable and require no maintenance at this time.
- 4) Internal canopy anchor cables were not inspected as partially submerged and not accessible.
- 5) Gates and Access points. All gates were observed to open and close easily and seal well as required. All gates are deemed stable and require no maintenance at this time.

Section 19

BIO-22 Mitigation for Impacts to State Waters

Verification: *No less than 30 days prior to the start of construction-related ground disturbance activities potentially affecting waters of the state, the Project owner shall provide written verification (i.e., through incorporation into the (BRMIMP) to the CPM that the above best management practices shall be implemented. The Project owner shall also provide a discussion of work in waters of the state in Compliance Reports for the duration of the Project.*

No less than 30 days prior to beginning construction-related ground-disturbing activities the Project owner shall provide written verification of Security in accordance with this condition of certification. The Project owner, or an approved third party, shall complete and provide written verification of the proposed compensation lands acquisition within 18 months of the start of construction related ground-disturbing activities.

The Project owner shall notify the CPM and CDFG, in writing, at least five days prior to initiation of construction-related ground-disturbing activities in jurisdictional state waters and at least five days prior to completion of Project activities in jurisdictional areas. The Project owner shall notify the CPM and CDFG of any change of conditions to the Project, impacts to state waters, or the mitigation efforts. The notifying report shall be provided to the CPM and CDFG no later than seven days after the change of conditions is identified. As used here, change of condition refers to the process, procedures, and methods of operation of a Project; the biological and physical characteristics of a Project area; or the laws or regulations pertinent to the Project as defined below. A copy of the notifying Change of Conditions report shall be included in the annual reports or until it is deemed unnecessary by the CPM, in consultation with CDFG.

The Project owner, or an approved third party, shall provide the CPM, CDFG and USFWS with a draft management plan for the compensation lands and associated funds within 180 days of the land or easement purchase, as determined by the date on the title. The CPM shall review and approve the management plan, in consultation with CDFG. Within 90 days after completion of Project construction, the Project owner shall provide to the CPM and CDFG an analysis with the final accounting of the amount of jurisdictional state waters disturbed during Project construction.

The Project owner shall provide written verification to the CPM, USFWS and CDFG that the compensation lands or conservation easements have been acquired and recorded in favor of the approved recipient no later than 18 months after the start of construction-related ground-disturbing activities.

On January 31st of each year following construction the Designated Biologist shall provide a report to the CPM, BLM, USFWS and CDFG that describes the results of monitoring and management of the acquisition lands. The annual report shall describe actions taken to implement the management plan (for example, fencing, erosion control, weed control) during the year and recommendations for enhancement actions that should be implemented the following year.

Response: Wildlands is responsible for completing the other compensatory mitigation tasks and deliverables described in the CEC Decision and BLM Approvals, including, but not limited to,

Preliminary Report, Title/Conveyance, Initial Protection and Habitat Improvement, Property Analysis Record, and Long-Term Maintenance and Management Funding and all associated reports and notifications that must be submitted to the Approving Agencies.

Please refer to CDP Monitoring Report sent directly to the California Energy Commission, CPM, Mr. Eric Veerkamp.

Section 20

BIO-27 Couch's Spade Foot Toad

Verification: *No less than 30 days prior to construction-related ground disturbance the Project owner shall submit to the CPM and CDFG a final Protection and Mitigation Plan. Modifications to the Protection and Mitigation*

Plan shall be made only after approval from the CPM, in consultation with CDFG. If the Protection and Mitigation Plan includes creation of ponds, the number and acreage of created ponds shall be described in the plan. No less than 90 days prior to operation of Project the Project owner shall provide to the CPM as-built drawings and photographs of the created ponds and maps showing the size and location of the ponds in relation to project features. On January 31st of every year following initiation of operation of the Project the Project owner shall submit reports to the CPM documenting the capacity of the created ponds to hold water for at least 9 days during the spadefoot toad breeding season. If ponds fail to hold water as described above the Project owner shall implement remedial actions. The annual reporting may be terminated upon satisfactory demonstration of this performance standard, and with approval of the CPM.

Response: No mitigation ponds were required and none were built.

****Requesting permission to remove from Future Report.**

Section 21

HAZ-1 Hazardous Materials

Haz-1: The project owner shall not use any hazardous materials not listed in Appendix A, below, or in greater quantities or strengths than those identified by chemical name in Appendix A, below, unless approved in advance by the Compliance Project Manager (CPM).

Verification: The project owner shall provide to the CPM, in the Annual Compliance Report, a list of hazardous materials contained at the facility. The attached Appendix A list, includes the chemical names and quantities used on the Genesis Solar, LLC site.

Response: Below is the list of Hazardous Materials at Genesis Solar.

Material	CAS No.	Application	Hazard Characteristics	Maximum Quantity On Site	CERCLA Sara RQ	RQ in Gallons of Product
Acetylene	74-86-2	Welding Gas	Health: moderate toxicity Physical: toxic	990 cubic feet	NR	
Argon	7440-37-1	Welding Gas	Health: low toxicity Physical: non-flammable gas	1980 cubic feet	NR	
Carbon Dioxide	124-38-9	Welding Gas	Health: moderate toxicity Physical: non-flammable gas	556 lbs	NR	
Diesel Fuel	68476-34-6	Equipment refueling and emergency diesel fire pump	Health: low toxicity Physical: combustible	2800 gallons	NR	
Nitrogen	7727-37-9	HTF System	Health: low toxicity	2640 cubic feet	NR	
Oxygen	7782-44-7	Welding Gas	Health: low toxicity Physical: oxidizer	1320 cubic feet	NR	
Dow Therma	101-84-8	Heat Transfer Fluid (HTF) through out solar array	Health: moderate toxicity Physical: irritant: combustible liquid (class III-B)	1800000 gallons	100 pounds	42 gallons
Sodium Hypochlorite	7681-52-9	Biological control	Health: low toxicity Physical: N/A	1320 gallons	100	82 gallons
Sodium Bisulfite (30%)	7631-90-5	Bleach reduction for RO	Health: High toxicity Physical: Corrosive	1320 gallons	5000 gallons	1617 gallons
Antiscalent	37971-36-1	Antiscalent RO	Health: low toxicity Physical: N/A	660 gallons	NR	
Caustic (50%)	1310-73-2	pH Adjustment	Health: Medium toxicity Physical: Corrosive and irritating to the eyes and skin	660 gallons	1000 pounds	157 gallons

Sulfuric Acid (93%)	7664-93-9	pH Adjustment	Health: Medium toxicity Physical: Corrosive and irritating to the eyes and skin	2749 pounds	1000 pounds	70 gallons
Coagulant	10028-22-5	Solids reduction, lamella reducer	Health: Medium toxicity Physical: Corrosive and irritating to the eyes and skin	660 gallons	1000 pounds	253 gallons
Polymer	64742-47-8	Solids reduction, lamella reducer	Health: Medium toxicity Physical: Irritating to the eyes and skin	660 gallons	NR	
Ammonia Hydroxide (19.5%)	1336-21-6	pH Adjustment	Health: High toxicity Physical: Corrosive and irritating to the eyes and skin, can cause serious eye damage. Harmful if inhaled	660 gallons	1000 pounds	647 gallons
Phosphates	7601-54-9	phosphate treatment for steam generators	Health: Medium toxicity Physical: Irritating to the eyes and skin	660	5000 pounds	7275 gallons
Sodium Bromide	7647-15-6	Biological control	Health: High toxicity Physical: Corrosive and irritating to the eyes and skin, can cause serious eye damage. Harmful if inhaled	660 gallons	1000 pounds	900 gallons
Unleaded Gasoline	86290-81-5	Equipment refueling and emergency diesel fire pump	Health: low toxicity Physical: combustible	2000 gallons	NR	

Section 22

HAZ-6 *The project owner shall also prepare a site-specific security plan for the commissioning and operational phases that will be available to the CPM for review and approval. The project owner shall implement site security measures that address physical site security and hazardous materials storage. The level of security to be implemented shall not be less than that described below (as per NERC 2002).*

Verification: *At least thirty (30) days prior to the initial receipt of hazardous materials on site, the project owner shall notify the CPM that a site-specific operations site security plan is available for review and approval. In the annual compliance report, the project owner shall include a statement that all current project employee and appropriate contractor background investigations have been performed, and that updated certification statements have been appended to the operations security plan. In the annual compliance report, the project owner shall include a statement that the operations security plan includes all current hazardous materials transport vendor certifications for security plans and employee background investigations*

Response: Due to national security measures, the security plan is not attached, however, the CPM has reviewed and approved the plan.

The following documentation is a record of the Affidavit of Compliance signed by the Plant General Manager complying with the CEC Haz-6 Condition of Certification. Also enclosed is the Training Roster sign in sheet for the review of the Emergency Response Plan.

Certificate of Affidavit Genesis Solar, LLC
--

Eric Preher, Plant General Manager

(Name of Person signing affidavit) (Title)

Do hereby certify that background investigations to ascertain the accuracy of the identity and
employment history of all employees of
Genesis Solar, LLC

(Company name)

Have been conducted as directed by the California Energy Commission Decision for the above
named project.



(Signature of Officer or Agent)

Dated this 22 day of JAN, 2018

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY
PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW
BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER

Sept 18, 2019

CUPA-HAZ Waste

William F Garrard

Mark Maden

aka w

Dustin Hass

Mika Myers

JOBS

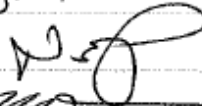
NEPTUNE MAQUE

Oct. 9, 2019 CUPA/SPCC/ERP

MIKE MEDSKER



Neptune Maree



Mike Myers



Pedro Perez

Luis M Murillo



David Gonzalez



WILLIAM GOSSETT



Annual Training - SPCC/ERP/CUPA

Oct. 16, 2019

Stephen Williams

Kelly Amador

Ran Bruesch

Jesus S. Figueroa

Warr Hancock

Doug Konkrig

David Gonzalez

Neptune Macee

Pedro Pora

Aaron M. Pien

WILLIAM COSSETT

Luis M. Murillo

Section 23

Soil&Water-1 Drainage Erosion & Sedimentation Control Plan

Verification: *Once operational, the Project owner shall update and maintain the DESCP for the life of the Project and shall provide in the annual compliance report information on the results of monitoring and maintenance activities.*

Response: A significant storm event on November 20, 2019 resulted in erosion and damage within the confines of the Genesis Power blocks and surrounding channels. See following pictures and explanations.

The California Energy Commission staff visited the site soon after the flood event and discussions commenced on resolving specific concerns. Genesis staff has mitigated those concerns, resulting in defined processes for future events.

A revised Emergency Action Plan was developed and approved by the CPM, upgraded weather detection and alerts were incorporated, emergency egress plans were instituted.

The following Flood Event presentation/report was submitted to the CEC in June 2020. The areas that are pending repair in the report are still slated for completion in August 2020. The interested contractors have performed the walk down and bids are due back no later than July 17, 2020.

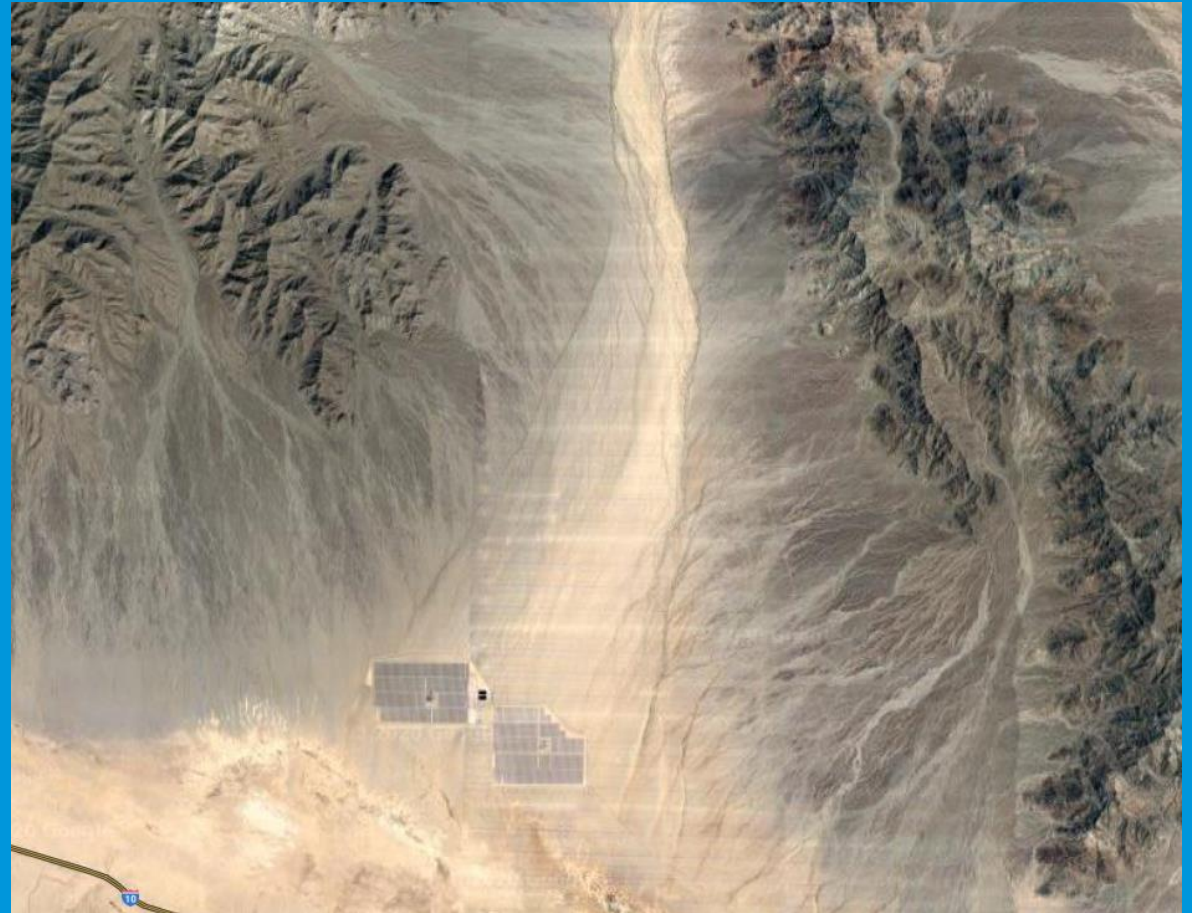


Genesis Solar Flood Event November 19, 2019

Genesis Team

NextEra Energy

Updated June 1, 2020

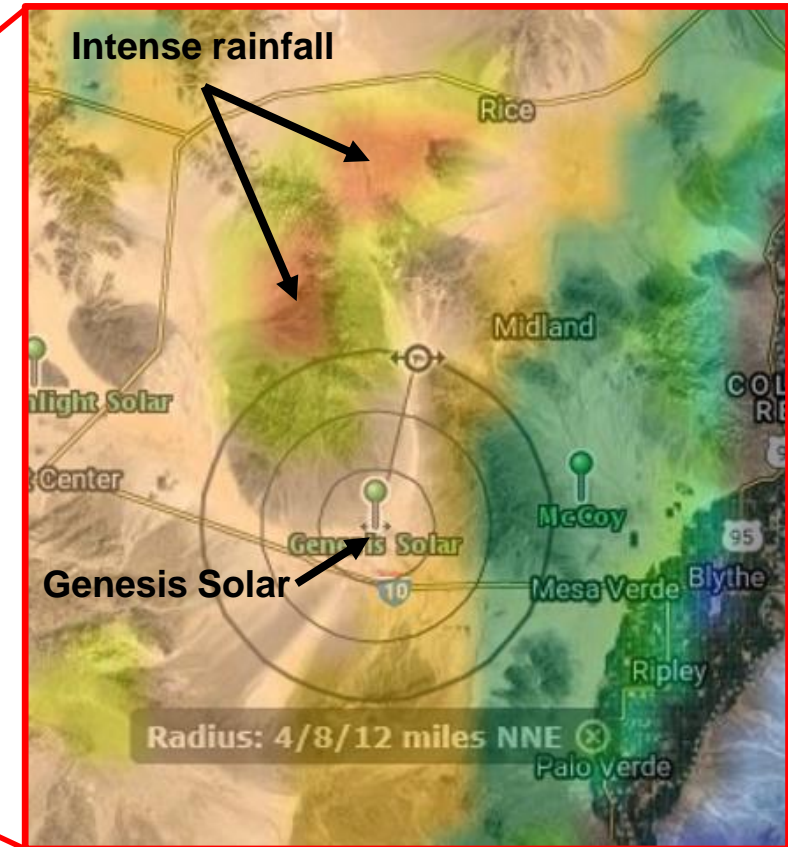


Executive Summary:

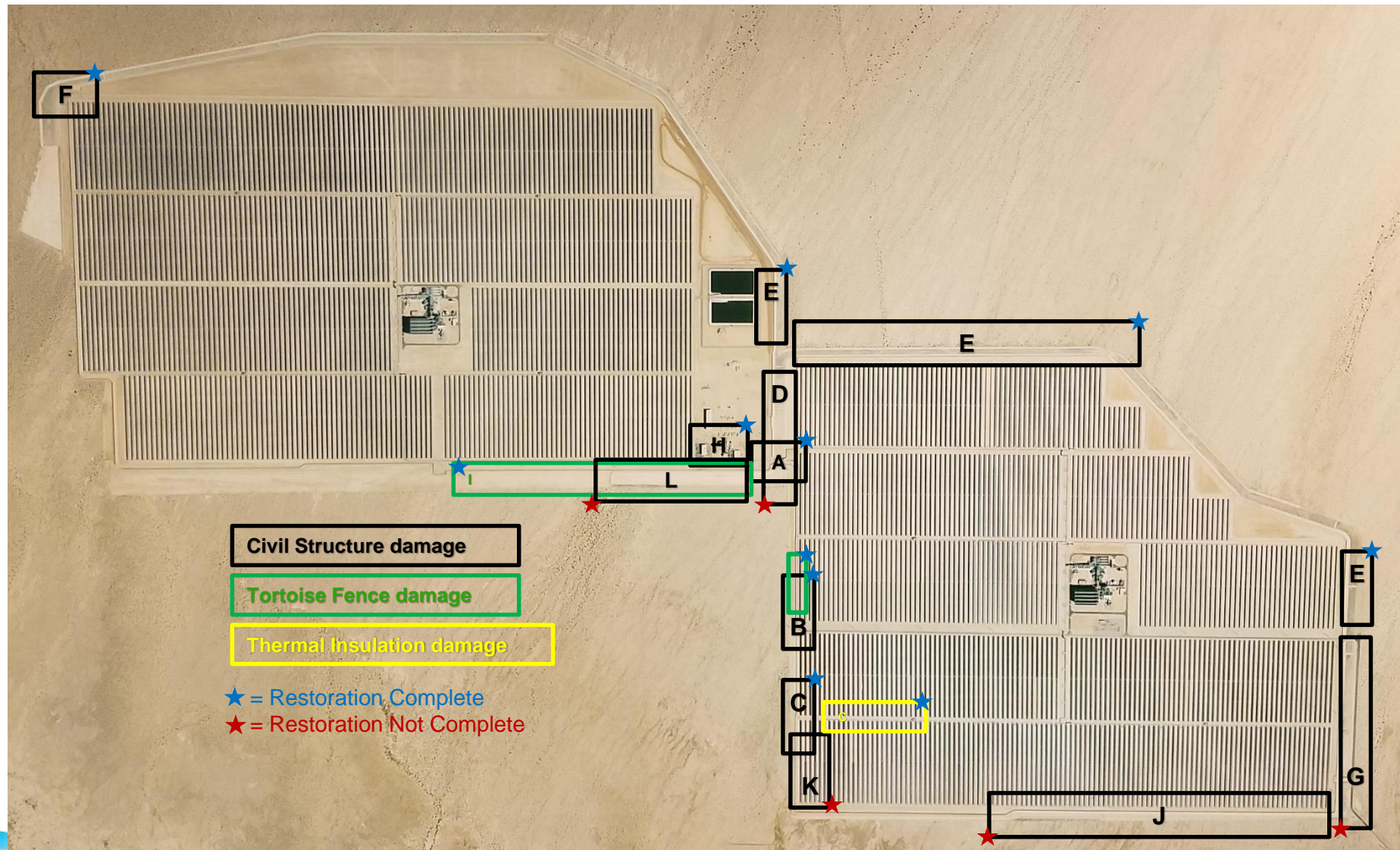
On the night of November 19th 2019, Genesis Solar experienced a significant rain storm. This resulted in flooding of the Diversion Channel System that surrounds the site. Most of the damage occurred on the west side of Unit 2 and the Administration area. Other areas were impacted by erosion and soil movement.

Storm System of November 19 - 20, 2019:

- The largest 24hr rainfall totals of the storm system occurred immediately north of Genesis Solar
- Blythe CA recorded nearly all its rainfall in concentrated periods: 7pm, Midnight, and 1am
- Flooding at Genesis occurred after Midnight.



Genesis Aerial View and Areas of Significant Impact



Areas of Significant Impact

Area A: Diversion Channel Box Culvert Crossing

Summary of Issues

- Item #1 - Undermining of soil under concrete pavement on north side
- Item #2 - Erosion of soil around wind wall and fence on northwest corner
- Item #3 - Erosion of soils around wind wall, fence, and diversion channel "soil glue" on NW corner
- Item #4 - Undermining of soil under concrete pavement on south side at approach slabs
- Item #5 - Erosion of soil around wind wall and fence on southwest corner
- Item #6 - Erosion of soil around wind wall and fence on southeast corner

Restoration Status: Items 1 - 6 Complete

Area B: Concrete Lined Ditch and Roadway

Summary of Issues

- Item #7 - Undermining of roadway
- Item #8 - Undermining of fencing foundation
- Item #9 - Undermining of concrete lined ditch
- Item #10 - Damaged discharge culverts at end of concrete lined ditch

Restoration Status: Items 7 - 10 Complete

Area C: Pipe Support Damage and Erosion

Summary of issues

- Item #11 - Erosion of soil around pipe supports
- Item #12 - Accumulated sediment and insulation damage

Restoration Status: Items 11 - 12 Complete

Area D: Diversion Channel Damage

Summary of Issues

- Item #13 - Erosion of soil, deposited soil, Rip Rap displacement North side and South side of Bridge.

Restoration Status: Item 13 Partially Complete (south of bridge not complete). Scope developed. Contractor walk-down scheduled for June 2020.

Area E: Main Channel Damage

Summary of Issues

- Item #14 - Erosion of soil, Rip Rap displacement

Restoration Status: Item 14 Complete

Areas of Significant Impact

Area F: Channel “A” Northwest Corner

Summary of Issue

- Item #15 - Erosion of soil and Rip Rap displacement

Restoration Status: Item 15 Complete

Area G: Access Road and Diversion Channel

Summary of Issue

- Item #16 - Erosion, undermining of roadway, erosion of Diversion Channel, Rip Rap displacement

Restoration Status: Item 16 Not Fully Complete (Diversion Channel not complete). Scope developed. Contractor walk-down scheduled for June 2020.

Area H: Administration and Water Treatment Building Drywall

Summary of Issue

- Item #18 – Damaged drywall

Restoration Status: Item 18 Complete

Area I: Tortoise Fencing

Summary of Issue

- Item #17 - Damaged Tortoise fencing South of Administration Building

Restoration Status: Item 17 Complete

Area J: “D” Channel Sedimentation Basin

Summary of Issue

- Item #19 - Heavy erosion, accumulated sediment

Restoration Status: Item 19 Not Complete. Scope developed. Contractor walk-down scheduled for June 2020

Area K: Unit 2 Solar Field SW Quadrant

Summary of Issue

- Item #20 - Accumulated sediment

Restoration Status: Item 20 Not Complete. Scope developed. Contractor walk-down scheduled for June 2020

Area L: “BC” Channel Sedimentation Basin

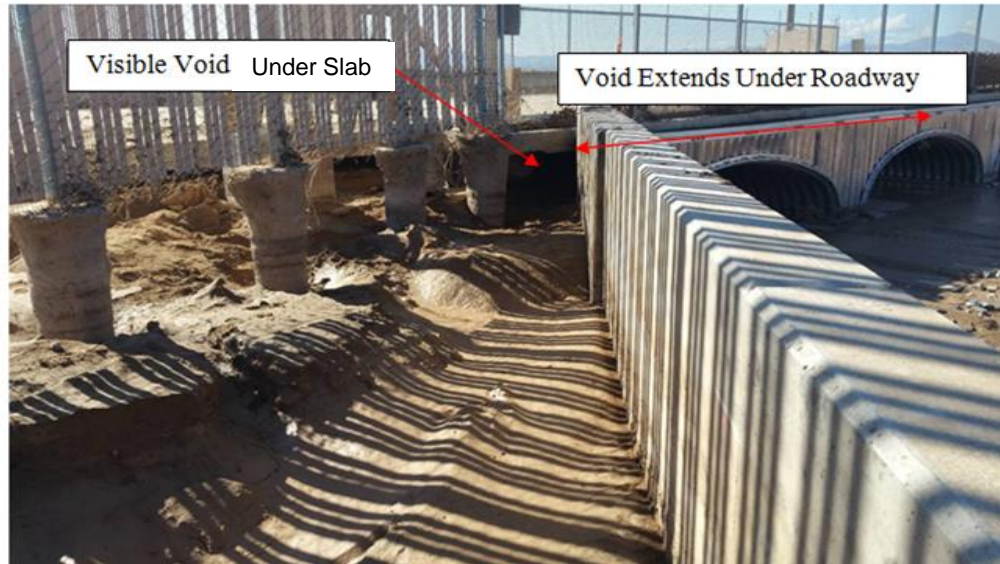
Summary of Issue

- Item #21 – Accumulated sediment

Restoration Status: Item 21 Not Complete. Scope developed. Contractor walk-down scheduled for June 2020

Item #1 - Undermining of Soil Under Concrete Pavement, North Side of Bridge

Before



After



Proposed Fix:

Create an earth dam or formed dam along the north edge of the concrete slab to the diversion channel wind walls. Supplier may use onsite soil to create an earthen berm. Core drill existing slab with 4" diameter holes and pressure inject cementitious fill. Cementitious fill shall be submitted by contractor for Nextera approval.

Anticipated Quantities:

Concrete Coring: (12) 4" Diameter Injection Holes
Cementitious Fill: 70 cubic yards

Status: Complete

Item #2 - Erosion of Soil Around Wind Wall and Fence on NW Corner of Bridge

Before



After



Proposed Fix:

Remove any existing saturated or mucky soils. Utilize onsite material to fill in erosion. Fill shall be placed in 12" lifts and compacted to 90% the maximum dry density per ASTM D 1557. The area to include fill along 350 linear feet of fencing to the north.

Anticipated Quantities:

380 cubic yard of material to be placed and compacted.

Status: Complete

Item #3 - Erosion of Soil Around Wind Wall, Fence and Diversion Channel

Before



After



Proposed Fix:

Remove any existing saturated or mucky soils. Utilize onsite material to fill in erosion. Fill shall be placed in 12" lifts and compacted to 90% the maximum dry density per ASTM D 1557. The area to include fill along 100 linear feet of fencing to the north. Apply earth glue to diversion canal embankment when making repairs.

Anticipated Quantities:

900 cubic yard of material to be placed and compacted.

Status: Complete

Item #4 - Undermining Concrete Pavement on South Side at Approach Slabs

Before



After



Proposed Fix:

Remove any saturated or mucky soil. Create an earth dam or formed dam along the south edge of the concrete slab to the diversion channel wind walls. Supplier may use onsite soil to create an earthen berm. Place a flowable cementitious fill or compacted native soil to fill the voids along the south edge of slab. Cementitious fill shall be submitted by contractor for Nextera approval

Anticipated Quantities:

10 cubic yards of cementitious fill or native soil

Status: Complete

Item #5 - Erosion of Soil Around Wind Wall and Fence

Before



After



Proposed Fix:

Remove any existing saturated or mucky soils. Utilize onsite material to fill in erosion. Fill shall be placed in 12" lifts and compacted to 90% the maximum dry density per ASTM D 1557. The area to include fill along 100 linear feet of fencing to the north. Apply earth glue to diversion canal embankment when making repairs.

Anticipated Quantities:

365 cubic yard of material to be placed and compacted.

Status: Complete

Item #6 - Erosion of Soil Around Wind Wall and Fence

Before



After



Proposed Fix:

Remove any existing saturated or mucky soils. Utilize onsite material to fill in erosion. Fill shall be placed in 12" lifts and compacted to 90% the maximum dry density per ASTM D 1557. The area to include fill along 75 linear feet of fencing to the north. Apply earth glue to diversion canal embankment when making repairs.

Anticipated Quantities:

250 cubic yard of material to be placed and compacted.

Status: Complete

Item #7 – Erosion, Undermining of Roadway

Before



After



Proposed Fix:

Place a flowable cementitious material to fill in voids along the west edge of road. Cementitious fill shall be submitted by contractor for Nextera approval.

Anticipated Quantities:

Cementitious Fill: 200 cubic yards

Status: Complete

Item #8 – Erosion, Undermining of Wind Wall Foundation

Before



After



Proposed Fix:

Contractor to plumb and temporarily shore the existing fence poles that are leaning.

Place a flowable cementitious fill around the existing fence pole foundations. Cementitious fill shall be submitted by contractor for Nextera approval

Anticipated Quantities:

Cementitious Fill: Included in Item #7

Status: Complete

Item #9 - Undermining of Concrete Lined Ditch

Before



After



Proposed Fix:

Place a flowable cementitious fill under existing concrete lined ditch. Cementitious fill shall be submitted by contractor for Nextera approval.

Anticipated Quantities:

Cementitious Fill: 50 cubic yards

Status: Complete

Items #10 - Damaged Discharge Culverts at End of Concrete Lined Ditch

Before



After



Proposed Fix:

Repair damaged fittings on pipe. Remove and replace concrete apron that has fallen at end of ditch per original plans. Re-grade area with existing fill and restore Rip Rap.

Anticipated Quantities:

Fill: 16 cubic yards
Concrete: 5 yards

Status: Complete

Item #11- Erosion of Soil Around Pipe Supports

Before



After



Proposed fix:
Re-build bank and repair riser supports.

Status: Complete

Item #12 – Accumulated Soil Deposits and Damaged Insulation

Before



After



Proposed fix:
Remove deposited soil and replace insulation

Status: Complete

Item #13 - Erosion of Soil & Rip Rap Displacement in Diversion Channel

Before (N. Side)



After (N. Side)



Proposed Fix:
Remove access dirt from channel and redistribute Rip Rap through out channel

Status: Partially Complete. North side of bridge complete. South side not Complete.

Item #14 - Rip Rap Displacement in Main Channel

Before



After



Proposed Fix:
Move Rip Rap to top of Main Channel

Status: Complete

Item #15 - Erosion of Soil, Rip Rap Displacement “A” Channel

Before



After



Proposed fix:
Repair erosion and re-distribute Rip Rap

Status: Complete

Item #16 - Erosion and Undermining, Rip Rap Displacement

Before



After



Proposed Fix:
Back fill erosion and redistribute Rip Rap

Status: Partially Complete. Roadway damage restored. Diversion Channel (not pictured) not restored.

Item #17 – Damaged Tortoise Fence South of Administration Building

Before



After



Proposed Fix:
Replacement of Tortoise Fencing along fence line south of control room.

Quantities:
5500 ft. of Tortoise Fencing

Status: Complete

Item #18 - Damaged Drywall, 1st Floor of Administration and Water Treatment Buildings

Before



In Progress



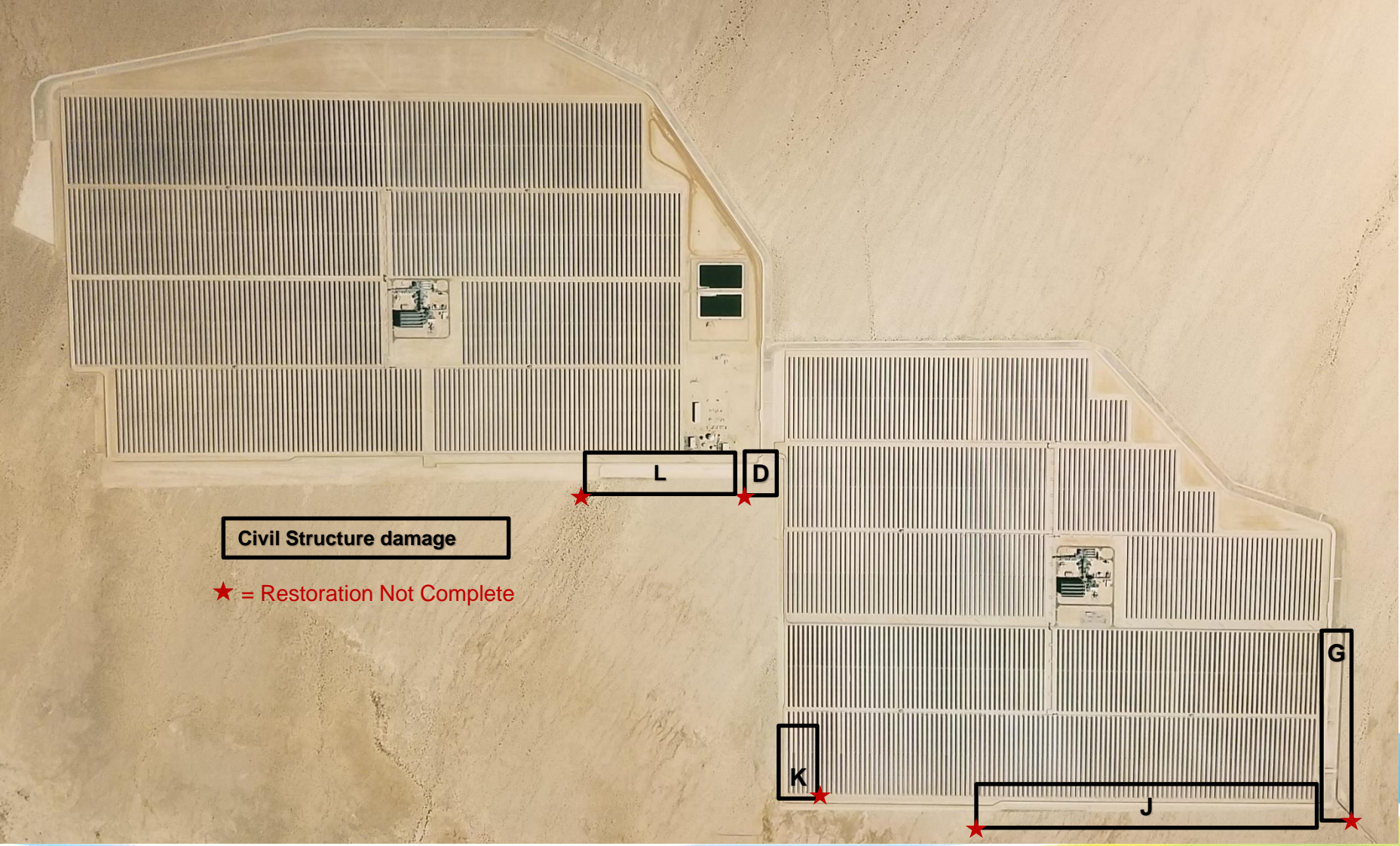
After



Proposed Fix:
Remove 2 ft. high section of all first floor drywall and insulation. Replace and repaint.

Status: Complete

Overview of Areas With Incomplete Restoration



Incomplete Restorations

- These areas involve the removal of displaced silt and sand, restoration of Rip Rap, backfilling and compaction of eroded areas.
- Work scope development complete. Contractor walk downs scheduled for June 2020.
- Genesis will inform the CEC upon completion of these outstanding items.

Area D: Diversion Channel Damage

Summary of Issues

- Item #13 - Erosion of soil, deposited soil, Rip Rap displacement North side and South side of Bridge.

Restoration Status: Item 13 Partially Complete (south of bridge not complete).

Area G: Diversion Channel

Summary of Issue

- Item #16 - Erosion of Diversion Channel & Rip Rap displacement (Access Road restoration work complete)

Restoration Status: Item 16 Not Complete

Area J: “D” Channel Sedimentation Basin

Summary of Issue

- Item #19 - Heavy erosion, accumulated sediment

Restoration Status: Item 19 Not Complete.

Area K: Unit 2 Solar Field SW Quadrant

Summary of Issue

- Item #20 - Accumulated sediment

Restoration Status: Item 20 Not Complete.

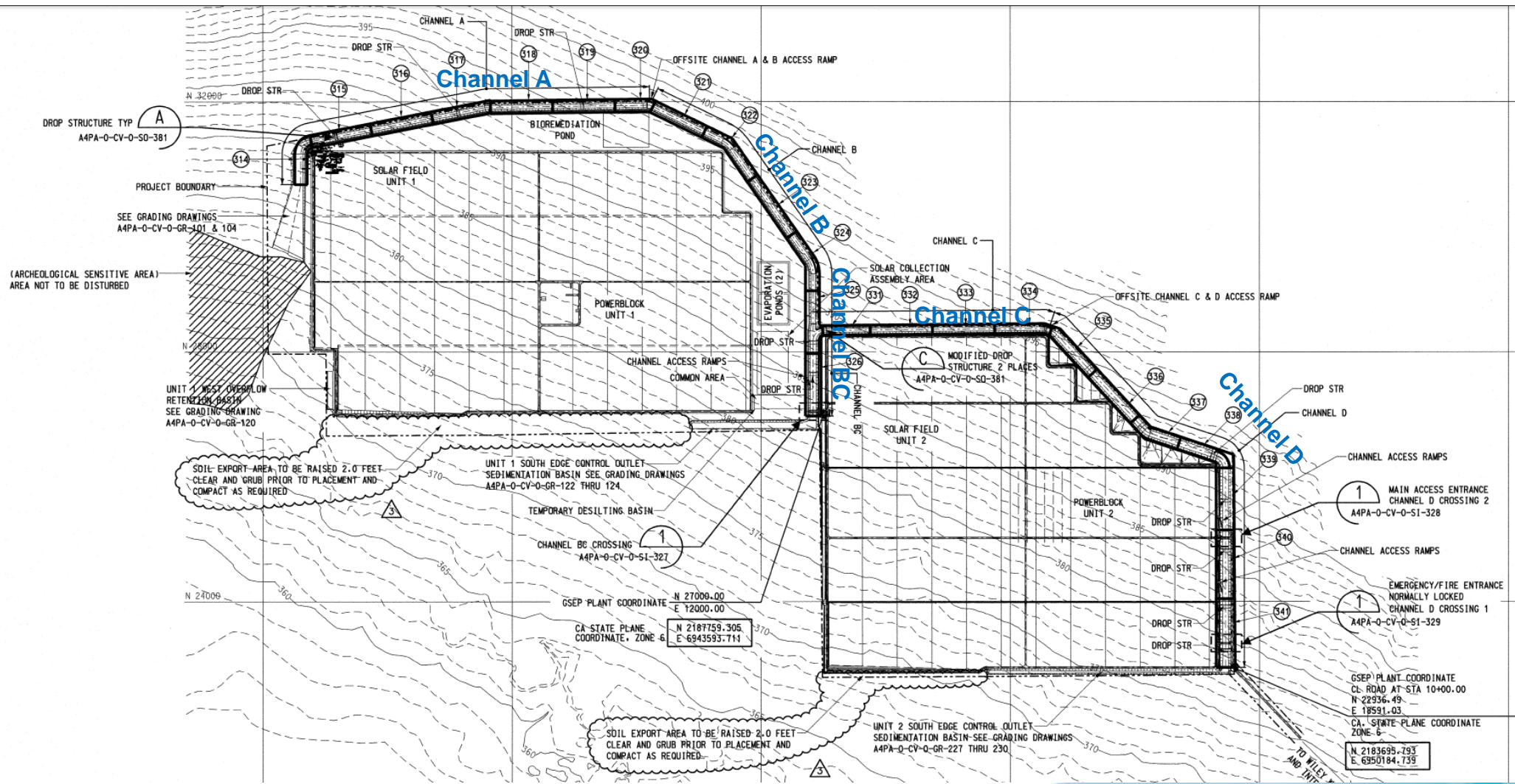
Area L: “BC” Channel Sedimentation Basin

Summary of Issue

- Item #21 – Accumulated sediment

Restoration Status: Item 21 Not Complete.

Reference Information: Channel Index Map



END

Section 24

Soil&Water 2

Verification:

During Project operation, the Project owner shall submit to the CPM, applicable quarterly, semi-annual and annual reports presenting all the data and information required. Quarterly reports shall be submitted to the CPM thirty (30) days following the end of the quarter. The 4th quarter report shall serve as the annual report, and will be provided on January 31 in the following year.

The Project owner shall submit to the both the CPM all calculations and assumptions made in development of report data and interpretations, calculations, and assumptions used in development of any reports.

j. After the first five year operational and monitoring period, the Project owner shall submit a 5-year monitoring report to the CPM that submits all monitoring data collected and provides a summary of the findings. The CPM will determine if the water level measurement frequencies should be revised or eliminated.

Response: All quarterly, semi-annual and annual reports were submitted to the CPM on a timely basis. Genesis staff has submitted hard copies as well as electronic copies to the CPM. The attachments are included on the site in the Compliance Folder. Reports are not included as an attachment due to their data size.

Section 25

Soil&Water 5

Verification: *At least thirty (30) days prior to the start of construction of the proposed Project, the Project owner shall submit to the CPM a copy of evidence that metering devices have been installed and are operational.*

Beginning six (6) months after the start of construction, the Project owner shall prepare a semi-annual summary of amount of water used for construction purposes. The summary shall include the monthly range and monthly average of daily water usage in gallons per day. The Project owner shall prepare an annual summary, which will include monthly range and monthly average of water usage in gallons per month, and total water used on an annual basis in acre-feet. For years subsequent to the initial year of operation, the annual summary will also include the yearly range and yearly average water use by source. For calculating the total water use, the term "year" will correspond to the date established for the annual compliance report submittal.

Response: Results of the Water Usage for Genesis Solar, LLC is as follows:

Month	Onsite Use (self-gen) MWh	Sales for Resale MWh	Sales to End-User 1 MWh	End User 1 NAICS Code	Sales to End-User 2 MWh	End User 2 NAICS Code
January		21,475				

February		32,745				
March		49,440				
April		64,269				
May		71,047				
June		76,960				
July		70,776				
August		73,902				
September		60,196				
October		56,893				
November		26,821				
December		12,432				
Annual Total (1)		315,936				

Section 26

Soil&Water-13 Channel Maintenance Program

Channel Maintenance Plan:

7. Reporting

As part of the Project Annual Compliance Report to the CPM, submit a Channel Maintenance Program Annual Report specifying which maintenance activities were completed during the year including type of work, location, and measure of the activity (e.g. cubic yards of sediment removed). The Channel Maintenance Program Annual Report will include which maintenance activities were completed during the year including type of work, location, and measure of the activity (e.g. cubic yards of sediment removed), a report describing "Lessons Learned" to evaluate the effectiveness of both resource protection and maintenance methods used throughout the year and establish policies to ensure that resources would be protected to the fullest extent feasible during routine channel maintenance activities.

Verification: *At least sixty (60) days prior to the start of any project-related activities (not including linear), the Project owner shall coordinate with the CPM to develop the Channel Maintenance Program. The Project owner shall submit two copies of the programmatic documentation, describing the proposed Channel Maintenance Program, to the CPM (for review and approval). The Project owner shall provide written notification that they plan to adopt and implement the measures identified in the approved Channel Maintenance Program.*

Response: The Channel Maintenance Plan was submitted Feb 12, 2013 and was subsequently approved by the CPM. Some Tamarisk trees were removed from Channel A at the request of the BLM. The attached photos mark the trees that were removed and the channel after the work was completed.

Before



After:



Section 27

Soil&Water-16 Groundwater Production Report

Verification: *The Project owner shall file an annual "Notice of Extraction and Diversion of Water" with the SWRCB in accordance with Water Code Sections 4999 et. seq. The Project owner shall include a copy of the filing in the annual compliance report.*

Response: Copies of the filed Extraction Reports are shown below:



CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
STATE WATER RESOURCES CONTROL BOARD



ANNUAL NOTICE OF GROUNDWATER EXTRACTION & DIVERSION FOR 2019

Water Right ID
G333095

Primary Owner
GENESIS SOLAR LLC

INVOICE

Your Notice of Groundwater Extraction & Diversion (G333095) has been successfully submitted.

Please mail a check or money order for the \$50.00 filing fee along with a printout of this invoice to the following address:

State Water Resources Control Board
Division of Water Rights
PO Box 2000
Sacramento, CA 95812-2000

Check or money order should indicate your recordation number(s) and be made payable to: State Water Resources Control Board.

Do not send cash.

DEADLINE: Payment must be postmarked no later than June 30th in order to be recorded.

THIS SPACE FOR OFFICE USE ONLY R. _____ AMT: _____

ELECTRONIC PAYMENT/AUTOMATIC CLEARINGHOUSE (ACH)

If you are paying electronically, include your groundwater recordation number when submitting your payment. Click the following link to visit the [SWRCB Make a Payment webpage](#). Select the "Application Fees" box, then scroll to the bottom of the page and enter your application number RAG33309519.

After printing this invoice screen, please click the 'Return to List of Reports' button below to view reports for this Recordation Number. The listing will give you the option of printing the submitted report for your records.

[Return to List of Reports](#)

ANNUAL NOTICE OF GROUNDWATER EXTRACTION & DIVERSION FOR 2019

Water Right ID
G333094

Primary Owner
GENESIS SOLAR LLC

INVOICE

Your Notice of Groundwater Extraction & Diversion (G333094) has been successfully submitted.

Please mail a check or money order for the \$50.00 filing fee along with a printout of this invoice to the following address:

State Water Resources Control Board
Division of Water Rights
PO Box 2000
Sacramento, CA 95812-2000

Check or money order should indicate your recordation number(s) and be made payable to: State Water Resources Control Board.

Do not send cash.

DEADLINE: Payment must be postmarked no later than June 30th in order to be recorded.

THIS SPACE FOR OFFICE USE ONLY R. _____ AMT: _____

ELECTRONIC PAYMENT/AUTOMATIC CLEARINGHOUSE (ACH)

If you are paying electronically, include your groundwater recordation number when submitting your payment. Click the following link to visit the [SWRCB Make a Payment webpage](#). Select the "Application Fees" box, then scroll to the bottom of the page and enter your application number RAG33309419.

After printing this invoice screen, please click the 'Return to List of Reports' button below to view reports for this Recordation Number. The listing will give you the option of printing the submitted report for your records.

[Return to List of Reports](#)

ANNUAL NOTICE OF GROUNDWATER EXTRACTION & DIVERSION FOR 2019

Water Right ID
G333093

Primary Owner
GENESIS SOLAR LLC

INVOICE

Your Notice of Groundwater Extraction & Diversion (G333093) has been successfully submitted.

Please mail a check or money order for the \$50.00 filing fee along with a printout of this invoice to the following address:

State Water Resources Control Board
Division of Water Rights
PO Box 2000
Sacramento, CA 95812-2000

Check or money order should indicate your recordation number(s) and be made payable to: State Water Resources Control Board.

Do not send cash.

DEADLINE: Payment must be postmarked no later than June 30th in order to be recorded.

THIS SPACE FOR OFFICE USE ONLY R. _____ AMT: _____

ELECTRONIC PAYMENT/AUTOMATIC CLEARINGHOUSE (ACH)

If you are paying electronically, include your groundwater recordation number when submitting your payment. Click the following link to visit the [SWRCB Make a Payment webpage](#). Select the "Application Fees" box, then scroll to the bottom of the page and enter your application number RAG33309319.

After printing this invoice screen, please click the 'Return to List of Reports' button below to view reports for this Recordation Number. The listing will give you the option of printing the submitted report for your records.

[Return to List of Reports](#)

Section 28

Deleted

Section 29

Soil&Water-6 Waste Discharge Requirements

The Project owner shall pay the annual waste discharge permit fee associated with this facility to the Water Boards. In addition, the Water Boards may "prescribe" these requirements as waste discharge requirements pursuant to Water Code Section 13263 solely for the purposes of enforcement, monitoring, inspection, and the assessment of annual fees, consistent with Public Resources Code Section 25531, subdivision (c)

Response: The fees were paid December 13, 2019

Section 30

TLSN-3

Verification: *During the first 5 years of plant operation, the project owner shall provide a summary of inspection results and any fire prevention activities carried out along the right-of-way and provide such summaries in the Annual Compliance Report.*

Response: NextEra Energy complies with this condition of certification by visual inspection annually. Please see attached.



TVMP Inspection Genesis Solar

2015 Annual Ground Inspection
(TVMP Inspection)
October 27th 2019
FPL Power Delivery, Rick Vasquez

Genesis Solar 230kV Vegetation Management Condition Assessment

Inspected by: Robert Lozano
Patrol Date: 10/27/19
Patrol Time: 12 hours
Patrol Distance: 14.8 miles
Next Patrol Due by: 2nd Quarter 2020

Observation Summary (Documented in TVMS2)

All conditions of the corridor found to be compliant with NERC FAC-003 standards at the time of inspection.

Remaining 2019 Action Plan:

Corridor patrol schedule is an Annual versus Bi-Annual patrol due to low-density vegetation, low to moderate vegetation growth rates and predominant desert shrub species.

Section 31

VIS-1 Surface Treatment of Non-Mirror Project Structures and Buildings

Verification: *At least 30 days prior to specifying to the vendor the colors and finishes of the first structures or buildings that are surface treated during manufacture, the project owner shall submit the proposed treatment plan to the CPM for review and approval and simultaneously to Riverside County for review and comment. If the CPM determines that the plan requires revision, the project owner shall provide to and the CPM a plan with the specified revision(s) for review and approval by the CPM before any treatment is applied. Any modifications to the treatment plan must be submitted to the CPM for review and approval.*

Response:

Reporting Year Building conditions: Moderate weathering on exterior structures

Reporting Year Maintenance Activities: None

Next Year's Planned Maintenance Activities: None



Section 32

WASTE-9 Operations Waste Management Plan

Verification: *The project owner shall submit the Operation Waste Management Plan to the CPM for approval no less than 30 days prior to the start of project operation. The project owner shall submit any required revisions to the CPM within 20 days of notification from the CPM that revisions are necessary.*

The project owner shall also document in each Annual Compliance Report the actual volume of wastes generated and the waste management methods used during the year; provide a comparison of the actual waste generation and management methods used to those proposed in the original Operation Waste Management Plan; and update the Operation Waste Management Plan as necessary to address current waste generation and management practices.

Response: There were recent edits and changes to the original plan submitted to the CPM. Attached is the waste disposal manifests and newly revised Operations Waste Management Plan.

Please print or type.

ERTS# 1900284087

Form Approved OMB No. 2060-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number CAR000256396	2. Page 1 of 1	3. Emergency Response Phone (800) 924-6804	4. Manifest Tracking Number 013007394 FLE
5. Generator's Name and Mailing Address Attn: Charlyn Mosley Genesis Solar PO Box 2370 Blythe, CA 92226					
6. Transporter's Company Name Stericycle Specialty Waste Solutions Inc					
7. Designated Facility Name and Site Address Clean Harbors Arizona LLC 1340 W Lincoln St Phoenix, AZ 85007					
8. Facility's Phone (602) 462-2300 Ext					
9. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))					
10. Containers		11. Total Quantity		12. Unit	
No.		Type		Wt./Vol.	
Non RCRA Hazardous Waste Liquid (HTF, water)		2		800	
Non RCRA Hazardous Waste solid (heat transfer fluid and water contaminated boots)		5		1200	
X Non 1993, Waste Combustible liquid, n.o.s. (petroleum distillates, water), Combustible liq. PG III		1		250	
13. Waste Codes					
223					
223					
D001 HUNG					
193					
14. Special Handling Instructions and Additional Information 1. CH963854 2. CH963849 3. CH501985 2KPSM 5KPSM 1KPSM					
15. GENERATOR'S/OFFICER'S CERTIFICATION: I hereby declare that the contents of this manifest are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/identified, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this manifest conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste characterization statement identifies in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.					
Generator's Officer's Printed Name Charlyn Mosley					
Signature Charlyn M. Mosley					
Month Day Year 11 9 19					
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of export/entry: Date leaving U.S.:					
17. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name Keith Rogers		Signature [Signature]		Month Day Year 01 09 19	
Transporter 2 Printed/Typed Name		Signature		Month Day Year	
18. Discrepancy					
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
18b. Alternate Facility (or Generator) Member/Reference Number: U.S. EPA ID Number					
Facility's Phone: Month Day Year					
18c. Signature of Alternate Facility (or Generator) Month Day Year					
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)					
1. H141		2. H141		3. H141	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a					
Printed Name Brian O'Neil		Signature [Signature]		Month Day Year 11 18 19	

EPA Form 8700-02 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

8700-22 12v3 C6119830

S045

0285876

M389159

P0010819

SD010919

Please print or type.

ERTS# HMB132010

Form Approved OMB No. 2050-0038

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number CAR000256396	2. Page 1 of 1	3. Emergency Response Phone (800) 924-6804	4. Manifest Tracking Number 013405273 FLE
5. Generator's Name and Mailing Address Attn: Charlyn Mosley Genesis Solar PO Box 2370 Blythe, CA 92226		Generator's Site Address (if different than mailing address) Genesis Solar 11995 Wiley's Well Road Blythe, CA 92226			
6. Transporter 1 Company Name Stericycle Specialty Waste Solutions Inc		U.S. EPA ID Number PINS000110924			
7. Transporter 2 Company Name		U.S. EPA ID Number			
8. Designated Facility Name and Site Address Clean Harbors Arizona LLC 1340 W Lincoln St Phoenix, AZ 85007		U.S. EPA ID Number AZD049318009			
Facility's Phone (602) 462-2300 Ext					
9a. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type	11. Total Quantity	12. Unit (ML, NL, etc.)	13. Waste Codes	
Non-RCRA Hazardous Waste Liquid (HTF, water)	2 DM	875	P	223	
Non-RCRA Hazardous Waste solid (Oily Rags)	6 DM	1285	P	223	
Non-RCRA/Non-BOT-Regulated (used oil)	-DM-		P	223	
14. Special Handling Instructions and Additional Information 1. CH1737733 2. CH963849 3. GH0799415					
15. GENERATOR'S/OPERATOR'S CERTIFICATION: I hereby declare that the contents of this assignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled (as required), and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this assignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.					
Generator's/Operator's Printed/Typed Name HARLON WOLSON		Signature <i>[Signature]</i>		Month Day Year 07/26/19	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit Departing U.S.:			
17. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name Robert Tillman		Signature <i>[Signature]</i>		Month Day Year 07/26/19	
Transporter 2 Printed/Typed Name		Signature		Month Day Year	
18. Discrepancy					
18a. Discrepancy Indication (Space) <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
18b. Alternate Facility (or Generator) Manifest Reference Number: U.S. EPA ID Number					
Facility's Phone:					
18c. Signature of Alternate Facility (or Generator) Month Day Year					
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)					
1. H411 2. H411 3. 4.					
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a					
Printed/Typed Name J. A. J. J. J.		Signature <i>[Signature]</i>		Month Day Year 07/26/19	

EPA Form 6700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

B700-22_12v3 C6119830

S045

0315265

M427461

PD072419

SD072619

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000256396

2. Page 1 of 1

3. Emergency Response Phone: (800) 924-6804

4. Manifest Tracking Number: 013405589 FLE

5. Generator's Name and Mailing Address: Genesis Solar, PO Box 2370, Blythe, CA 92226

6. Generator's Phone: 864-491-6326

7. Generator's Site Address (if different than mailing address): Genesis Solar, 11995 Wiley's Well Road, Blythe, CA 92226

8. Transporter 1 Company Name: Stericycle Specialty Waste Solutions Inc

9. Transporter 2 Company Name: CR, FS, OFFC

10. Designated Facility Name and Site Address: CLEAN HAZARDOUS REFINING L.L.C., 1340 W Lincoln St, Phoenix, AZ 85007

11. Facility's Phone: (602) 462-2300 Ext

12. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)): 151205, Waste Paint related material, 3, PG 11

13. Manifest Reference Number: CH973282

14. Special Handling Instructions and Additional Information: 1. CH973282-2, CH1737733

15. Generator's Signature: Charlyn Mosley, 10/16/19

16. Transporter's Signature: Robert Tillman, 10/16/19

17. Designated Facility's Signature: [Signature], 10/25/19

18. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, storage, and recycling systems): 1. H111, 2. H111, 3. H111, 4. H111

19. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a

20. Designated Facility to EPA's e-Manifest System

Form 100-10-100

Form 100-10-100

NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number CARD00256396	2. Page 1 of 1	3. Emergency Response Phone 1-800-4-U-8081	4. Waste Tracking Number 01092019 KR
5. Generator's Name and Mailing Address 964-441-6326 Generator's Phone: Attn: Charly Mosley Genesis Solar P.O. Box 2370 Blythe, CA 92226		Generator's Site Address (if different than mailing address) Genesis Solar 11995 Wiley's Well Road Blythe, CA 92226			
6. Transporter 1 Company Name Stericycle Specialty Waste Solutions Inc.		U.S. EPA ID Number WNS000110924		U.S. EPA ID Number	
7. Transporter 2 Company Name		U.S. EPA ID Number		U.S. EPA ID Number	
8. Designated Facility Name and Site Address (602) 274-7602 Facility's Phone: Stericycle Specialty Waste Solutions Inc. 2444 W. Broadway Rd Phoenix, AZ 85042		U.S. EPA ID Number AZR000035840		U.S. EPA ID Number	
9. Waste Shipping Name and Description		10. Containers		11. Total Quantity	12. Unit Vol.
1. NON RCRA / NON DOT Regulated Material (fluorescent bulbs)		No.	Type		
		1	CF	5	P
2.					
3.					
4.					
13. Special Handling Instructions and Additional Information					
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.					
Generator's/Offor's Printed/Typed Name Charly Mosley		Signature <i>Charly M. Mosley</i>		Month 11	Day 9
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: Date leaving U.S.:			
16. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name Kath Rodgers		Signature <i>Kath Rodgers</i>		Month 01	Day 09
Transporter 2 Printed/Typed Name		Signature		Month	Day
17. Discrepancy					
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
Manifest Reference Number:					
17b. Alternate Facility (or Generator)		U.S. EPA ID Number			
Facility's Phone:					
17c. Signature of Alternate Facility (or Generator)		Month Day Year			
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in item 17a.					
Printed/Typed Name Patricia Cotton		Signature <i>Patricia Cotton</i>		Month 01	Day 16

GC Labels • Printed in the USA
1-800-297-6966

DESIGNATED FACILITY'S COPY

Reorder Parts MANIFEST-GENHW
913-937-6966

ERTS# HM8132010						
GENERATOR	NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number CAR000256396	2. Page 1 of 1	3. Emergency Response Phone (800) 924-6804	
			4. Waste Tracking Number 1330043SES			
	5. Generator's Name and Mailing Address Attn:Charlyn Mosley Genesis Solar 864-491-6326 PO Box 2370 Blythe, CA 92226			Generator's Site Address (if different than mailing address) Genesis Solar 11995 Wiley's Well Road Blythe, CA 92226		
	6. Transporter 1 Company Name Stericycle Specialty Waste Solutions Inc			U.S. EPA ID Number MNS000110924		
	7. Transporter 2 Company Name			U.S. EPA ID Number		
	8. Designated Facility Name and Site Address Stericycle Specialty Waste Solutions, Inc 2844 West Broadway Road Phoenix, AZ 85041			U.S. EPA ID Number AZR000035840		
	Facility's Phone: (602) 276-7602 Ext					
	9. Waste Shipping Name and Description Electronic Waste		10. Containers No. Type 1 CF		11. Total Quantity 220	12. Unit Wt./Vol. F
	13. Special Handling Instructions and Additional Information					
	14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.					
TRANSPORTER	Generator's/Officer's Printed/Typed Name Charlyn Mosley		Signature <i>Charlyn M. Mosley</i>		Month Day Year 10 16 19	
	15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/left: _____ Date leaving U.S.: _____			
	Transporter Signature (for exports only): Robert Tillman		Signature <i>Robert Tillman</i>			
	16. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name Transporter 2 Printed/Typed Name		Month Day Year 10 16 19			
DESIGNATED FACILITY	17. Discrepancy					
	17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
	17b. Alternate Facility (or Generator) _____ Manifest Reference Number _____ U.S. EPA ID Number _____					
	Facility's Phone: _____ 17c. Signature of Alternate Facility (or Generator) _____ Month Day Year _____					
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in item 17a. Printed/Typed Name: M. M. Crocker Signature: <i>M. M. Crocker</i> Month Day Year: 10 17 19						

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DESIGNATED FACILITY'S COPY

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAR000256396

2. Page 1 of 1

3. Emergency Response Phone: (800) 924-6804

4. Manifest Tracking Number: 013406810 FLE

5. Generator's Name and Mailing Address: Charlyn Mosley, Genesis Solar, PO Box 2370, Blythe, CA 92226

6. Generator's Phone: 864-491-6326

7. Generator's Site Address (if different from mailing address): Genesis Solar, 11995 Wiley's Well Road, Blythe, CA 92226

8. Transporter 1 Company Name: Stericycle Specialty Waste Solutions Inc

9. Transporter 2 Company Name: [Blank]

10. Designated Facility Name and Site Address: Jean Harbors Arizona LLC, 1340 W Lincoln St, Phoenix, AZ 85007

11. Facility's Phone: (602) 462-2300 Ext

12. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))

12. Container No.	12. Container Type	11. Total Quantity	12. UH Wt./Vol.	13. Waste Codes
4	DRUM	1000 LBS	223	
6	DRUM	1000 LBS	223	

14. Special Handling Instructions and Additional Information: 1. LHL737733 2. CH1737671

15. GENERATOR/SUPPORTER'S CERTIFICATION: I hereby declare that the contents of this manifest are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this manifest conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste identification statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

16. Generator's Officer's Printed/Typed Name: Charlyn Mosley

17. Transporter Acknowledgment of Receipt of Materials

18. Discrepancy

19. Alternate Facility (or Generator)

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18b

21. Designated Facility to EPA's e-MANIFEST SYSTEM

Genesis Solar Waste Management Plan

July 2020 Revision

PURPOSE

This Waste Management Plan is prepared in accordance with Condition of Certification WASTE-9 and WASTE-10 of the California Energy Commission's (CEC) Final Decision and Conditions of Certification for the Genesis Solar Energy Project. The purpose of the Waste Management Plan (WMP) is to identify the types and quantities of waste expected to be generated and present the waste management practices and procedures to be followed during the operation of the Genesis Solar Energy Center. The WMP identifies waste management activities to be conducted during the storage and the preparation and/or disposal of waste (including waste characterization, packaging, and management while in storage). The transportation and disposition of waste materials at appropriate disposal and recycling facilities is also included. It is the responsibility of the plant Environmental Specialist to verify that all plant personnel are aware of the requirements stipulated in this WMP.

1.0 WASTE DESCRIPTIONS

Operation activities will involve the generation, management, and disposal of various waste streams. Each waste stream and its respective classification have been identified for the operation of the plant. This information is summarized in Table 1 along with the estimated quantity generated, shipping frequency, and anticipated route.

Table 1. Genesis Solar Energy Center Waste Streams and Volume

Operations Waste Stream	Waste Hazard Classification	Estimated Annual Generation Amount
Scrap wood, glass, solar mirrors, plastic, paper. Class III garbage	Non-hazardous solids	25,000 lbs
Used Oil (hydraulic fluid, motor oils, lube oils, grease)	Hazardous Liquids	250 gals
Used Oil & Water (from Oily Water Separator)	Hazardous Liquids	50 lbs
Used Oil Filters	Hazardous Solid	100 lbs
Oily rags and absorbents	Hazardous Liquids	500 lbs

Operations Waste Stream	Waste Hazard Classification	Estimated Annual Generation Amount
Liquid Lab Waste	Hazardous Liquids	500 lbs
Solvents, paint, adhesives	Hazardous Liquids	50 lbs
Spent lead acid batteries	Universal Waste	50 lbs
Spent Rechargeable Batteries (Lithium Ion and Nickel Cadmium)	Universal Waste	25
Spent alkaline batteries	Universal Waste	25 lbs
Fluorescent, Mercury Vapor Lamps	Universal Waste	25 lbs
HTF Soil	Hazardous Waste Solids	2,000 lbs
HTF Unit Carbon Absorption Filters	Hazardous Waste Solids	5 tons
HTF Contaminated Debris	Hazardous Waste Solids	500 lbs
Used HTF with water	Hazardous Liquids	4,000 gals

HTF = Heat Transfer Fluid

2.0 WASTE MANAGEMENT

The substantive requirements of the state and federal hazardous waste generation, characterization, storage, treatment, and management regulations of Title 22, California Code of Regulations (CCR), Section 66261, 66262, and 66264 and 40 Code of Federal Regulations (CFR), Part 261, 262 and 264 are applicable to the management of hazardous wastes generated during the operation of the Genesis Solar, LLC power plant. A summary of the key aspects of the waste management program is provided below.

2.1 Waste Classification

Non-hazardous wastes may be disposed of at Class III waste disposal facilities. According to the State Water Resources Control Board, non-hazardous wastes are further divided into solid wastes that contain substantial quantities of degradable material (i.e., common municipal solid waste) and inert wastes, which do not contain degradable materials. Solid waste disposal is regulated by the California Integrated Waste Management Board and in the general area of the proposed site for the Genesis Solar facility, by the Riverside County Waste Management District (RCWMD). Inert wastes, such as wood, paper, glass and steel, will be recycled, to the extent practicable.

A California Hazardous Waste is defined as any waste whose hazardous nature exceeds criteria

for toxicity, corrosivity, ignitability, or reactivity as established by the Department of Toxic Substances (DTSC). California environmental health standards for the management of hazardous waste set forth in 22 CCR, Division 4.5 were approved by U.S. Environmental Protection Agency (EPA) as a component of the federally authorized California Resource Conservation and Recovery Act (RCRA) program. Therefore, the characterization of RCRA waste is based on the state requirements.

The characteristics of ignitability, corrosivity, reactivity, and toxicity are defined in 22 CCR, Sections 66261.21 through 66261.24. According to 22 CCR Section 66261.24(a)(1)(A), A waste that exhibits the characteristic of toxicity is assigned a hazardous waste code beginning with the letter “D” to wastes that exhibit the characteristic of toxicity; D waste codes are limited to “characteristic” hazardous wastes. According to 22 CCR, Section 66261.10, waste characteristics can be measured by an available standardized test method or be reasonably classified by generators of waste based on their knowledge of the waste **provided that the waste has already been reliably tested or if there is documentation of chemicals used.**

A waste determined not to be an RCRA hazardous waste may still be considered a state-regulated non-RCRA hazardous waste. The state is broader in scope in its RCRA program in determining hazardous waste. Title 22 CCR, Section 66261.24(a)(2) lists the total threshold limit concentrations (TTLCs) and the soluble threshold limit concentrations (STLCs) for non-RCRA hazardous waste. The state applies its own leaching procedure, waste extraction test (WET) that uses a different acid reagent and has a different dilution factor (tenfold). A waste is considered hazardous if its total concentrations exceed the TTLCs or if the extract concentrations from the WET exceed the STLCs. A WET is required when the total concentrations exceed the STLC by a factor of ten but are less than the TTLCs. Wastes determined to be hazardous wastes under California regulations and not under federal regulations are referred to as non-RCRA wastes.

General waste classifications for the waste streams at Genesis Solar are provided in Table 1. The majority of wastes generated at the site will be characterized based on process knowledge. **Process knowledge will be documented and kept with each waste stream file.** Waste oil, solvents, paint, spent batteries, fluorescent and mercury vapor lamps, and spent catalysts will be collected, contained, and sent off-site for recycling. All containers will be appropriately marked for recycling.

Most hazardous wastes may be disposed of only at Class I waste disposal sites approved by the DTSC. Certain hazardous wastes classified as restricted hazardous wastes are banned entirely from land disposal, because they pose a high threat to public health and the environment. Land disposal restrictions are provided in 22 CCR Section 66268.

2.2 Waste Accumulation and Storage

Part 262, 40 CFR and Section 66262, 22 CCR consist of regulations applicable to the generation, storage, management, and accumulation of RCRA and non-RCRA hazardous wastes, respectively. Specific requirements apply to the accumulation time for hazardous wastes on-site, and to the accumulation and labeling of hazardous wastes. The Genesis Solar facility will strive to reduce the quantity generated to maintain the lowest status possible. As of year 2020, Genesis Solar is considered a LQG (Large Quantity Generator). Wastes will be managed, accumulated, and inspected in accordance with the appropriate generator status regulations.

2.3 Wastewater and Waste Fluids

Fluids will be collected in 55-gallon drums or tanks. The drums will be temporarily staged within the designated storage areas. The drums will be placed on secondary containment and marked appropriately pending characterization and appropriate disposal.

When possible, waste fluids generated from equipment and maintenance activities will be collected and removed from the site by a recycling company. If waste fluids are required to be stored on-site, they will be labeled accordingly, contained within Department of Transportation (DOT) approved containers and situated within the accumulation area. Containers of hazardous wastes holding free liquids have stringent secondary containment requirements. These requirements include:

- A base free of cracks or gaps and sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.
- The base will be sloped or the containment system will be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation. Alternatively, the containers may be elevated on pallets to prevent contact with accumulated liquids.
- The containment system will have sufficient capacity to contain 10% of the volume of containers or the volume of the largest container, whichever is greater, plus the maximum rainfall from a 25-year 24-hour storm event.
- Spilled or leaked waste and accumulated precipitation will be removed from the sump or collection area in a timely manner to prevent overflow of the collection system.

2.4 HTF Contaminated Soils

In accordance with Condition of Certification WASTE-10, all HTF spills will be documented and any releases exceeding 42 gallons or more will be reported to the CEC's Compliance Project

Manager (CPM). Soils impacted with 42 gallons or more of HTF will be sampled for EPA Method 8015 or other method to be reviewed and approved by DTSC and the CPM. from reportable spills impacting soils Spills exceeding 42 gallons to soils The project owner shall notify the DTSC and CPM of spill results and whether the soil is considered hazardous or nonhazardous. HTF-contaminated soil that exceeds the hazardous waste levels must be disposed of in accordance with California Health and Safety Code (HSC) Section 25203. HTF-contaminated soil that does not exceed the hazardous waste levels may be discharged into the land treatment unit (LTU) Genesis Solar utilizes a Class II bioremediation Land Treatment Unit (LTU) to treat soils impacted by incidental spills and leaks of Heat Transfer Fluid (HTF). The LTU, located north of the maintenance shop and south of the evaporative ponds, consists of four (4) bays each designed for accumulating and bio remediating HTF contaminated soils.

Soils contaminated from HTF releases will be promptly excavated and relocated to a staging area where they will be characterized as hazardous or non-hazardous waste to determine whether they can be treated in the LTU or whether they must be removed for off-site disposal. Soils containing 10,000 milligrams per kilogram (mg/kg) or parts per million (ppm) HTF or more will be managed as hazardous waste and sent offsite for disposal by a licensed hazardous waste hauler (i.e., MP Environmental), and soils containing less than 10,000 mg/kg or ppm of HTF will be non-hazardous waste and can be bio remediated at the LTU. No HTF-impacted soils characterized as hazardous waste will be disposed or treated on site.

If the evaporation ponds or LTU require temporary closure, the Closure and Post- Closure Maintenance Plan shall be implemented. A Preliminary Closure and Post-Closure Maintenance Plan for both waste management units will be submitted to the Colorado River Regional Water Quality Control Board with the application for a Report of Waste Discharge (ROWD). Within 28 days of an HTF spill that is 42 gallons or more, the CERCLA reportable quantity, the project owner shall notify the DTSC and CPM of the spill and provide the results of the analyses and their assessment of whether the spill is hazardous or non-hazardous in accordance with the criteria established and approved by the DTSC and the CPM per **WASTE-10**.

LTU Bay Use Designation:

One bay of the four bays is reserved at all times for emergency use only (i.e., for large areas impacted by HTF releases). The remaining three bays alternate between “in use” (i.e., actively accepting HTF contaminated soils) and “in treatment” (i.e., soils being treated and actively undergoing bioremediation). The bay designated “In Use” is able to receive soils until it reaches 30% capacity. Once the bay reaches 30% capacity, the bay is considered to have met maximum capacity and will be chained off to indicate that no additional soils. The next available bay is unchained and becomes the “in use” bay for accepting HTF contaminated soils.

Soil Bioremediation Treatment Procedure

Once a bay reaches 30% capacity and is designated “in treatment”, the soils are spread or tilled in the LTU using a loader. The soils are then moistened with well water from the water tank and spread and tilled with the loader once a week. This process continues on a weekly basis until the soils start to appear lighter in color. Treatment may involve addition of nitrogen and phosphorous nutrients (i.e., fertilizers) as needed to simulate consumption of HTF by the indigenous bacteria. More highly impacted soil may be covered with plastic sheeting to prevent contact with storm water and control potential odors and emissions, as well as for moisture and temperature retention.

Treatment times will vary between one to six months, depending on initial concentrations, and the ambient air and soil temperature. Once the soils get lighter in color, core samples are taken from the soil stockpile and taken to an environmental laboratory (i.e., Babcock Laboratories) for analysis, and the results are sent directly to the environmental specialist for review. If the soils test at a concentration of less than 100 mg/kg or ppm HTF, they are then moved from the LTU to another portion of the site until it is reused as fill material. Soils that exceed 100 ppm HTF will continue bioremediation treatment until levels are below the 100 ppm threshold.

3.0 WASTE DISPOSAL AND RECYCLING

3.1 Non-hazardous Waste Disposal Sites (Class III Landfills)

Existing non-hazardous solid waste disposal (Class II/III) facilities within 100 miles of the Genesis Solar facility that will accept non-hazardous wastes are listed in Table 2. The landfills listed in Table 2 accept all non-hazardous waste. Scrap metal, electronics, and tires are recycled.

Table 2. Class II & III Non-Hazardous Solid Waste Disposal Facilities

Landfill Disposal Site Name	Location	Daily Usage (tons)	Remaining Capacity (cubic yards)	Anticipated Year of Closure	Approximate Distance from Site (miles)
Riverside County Landfill/EPA ID# 33-AA-0017	Blythe, CA	400	8.8 million cubic yards	2034	10 miles
La Paz County Landfill/EPA ID #AZC950-823 (No RCRA or Cal-Haz wastes accepted)	Parker, CA	Unavailable	25.4 million cubic yards	No Permit Expiration date	50 miles

3.2 Hazardous Waste Disposal, Recycling and Treatment Sites

Hazardous waste will be disposed only at a hazardous waste disposal facility approved by NextEra Energy's vendor auditing program. The disposal facility must be permitted for the disposal of the particular type of hazardous waste generated. There are 2 major hazardous waste (Class I) landfills in southern California that may be utilized for disposing hazardous waste generated during operation activities at Genesis Solar. These landfills are:

- **Buttonwillow Landfill (Class I Landfill)** - 2500 West Lokern Road, Buttonwillow, CA 93206
- **Kettleman Hills Landfill (Class I Landfill)** - 35251 Old Skyline Road, Kettleman City, CA 93239

In addition to landfills, there are numerous offsite commercial hazardous waste treatment and recycling facilities in California. These facilities have sufficient capacity to recycle and/or treat hazardous waste generated in California. Spent Carbon Filters may be sent to an incineration facility for treatment i.e., Clean Harbor's Aragonite Incineration plant in Dugway, UT). Used Oil will be sent to a permitted Used Oil recycler, World Oil formerly known as Asbury.

4.0 WASTE TRANSPORTATION

Hazardous wastes sent off-site for disposal or recycling will be done in accordance with the DOT Hazardous Material Transportation regulations of 49 CFR Parts 171 through 177 and 40 CFR Part 262, Subpart B and 22 CCR Section 66262, which involve packaging, placarding, labeling, and manifesting requirements, and with appropriate LDR certification notices per 40 CFR Part 268 and 22 CCR Section 66268. Personnel having the required DOT-training will perform all DOT functions.

Material that does not exhibit one of the nine DOT hazard class characteristics (i.e. explosives, gases, flammable/combustible liquids, flammable solids/spontaneously combustible materials/dangerous when wet materials, oxidizers and organic peroxides, toxic materials and infectious substances, radioactive materials, corrosive materials) is not regulated under DOT rules for hazardous material transportation. If material is hazardous, it will be shipped under the appropriate hazard class. All hazardous waste will be transported under DOT hazardous material regulations. Each shipment containing hazardous material will be properly classed using the Hazardous Materials Table in 49 CFR 172.101. DOT-trained personnel will make all determinations.

4.1 Hazardous Waste Manifests and LDR Certification

All hazardous waste transported from the site will be accompanied by a Hazardous Waste Manifest. The plant technician will be responsible for preparing and signing all waste documentation, including waste profiles, manifests, and LDR notifications (manifest packages).

Prior to signing the manifest, the representative will ensure that pre-transport requirements of packaging, labeling, marking, and placarding are met according to 40 CFR Parts 262.30 through 262.33 and 49 CFR Parts 100 through 178.

5.0 WASTE MINIMIZATION AND RECYCLING

In order to assist Riverside County in meeting their waste diversion goal, the following waste minimization guidelines will be implemented throughout operation activities:

- Hazardous waste will not be comingled with non-hazardous waste.
- Work will be planned ahead.
- Products may be stored in large containers, but the smallest reasonable container will be used to transport the product to the location where it is needed.
- Absorbent material will be used to contain small spills or leaks.
- Material and equipment will be decontaminated and/or reused when practical.
- Implementation of zero-discharge wastewater collection system.
- Volume reduction techniques will be used when practicable.
- Waste containers will be verified to ensure they are solidly packed to minimize the number of containers.
- Only the size waste containers adequate to contain the volume of waste generated will be used.
- Environmentally friendly products will be used whenever possible.

In addition, recycling will be conducted where practical.

6.0 WASTE INSPECTIONS

While all waste accumulation areas will be informally inspected as part of daily walk through, formal inspections of all container accumulation areas will be conducted and recorded at least weekly in accordance with 40 CFR 264 Subpart I and 22 CCR 66264. The Plant Technician will conduct inspections. Inspections will be recorded on a weekly inspection checklist. The accumulation area(s) will be inspected to ensure that items, such as, but not limited to the following, will be covered:

- Drums/containers are in good condition.
- Drums/containers are made of materials that will not react with, and are otherwise compatible with, the hazardous waste to be stored.
- Drums/containers are closed at all times, except when adding or removing waste.
- Verify that containers are labeled correctly with the appropriate information.

- All waste stored at the waste slab will be weighed and logged on the log sheet. All blocks on the log sheet will be filled in.
- Batteries will be logged by constituent.
- All batteries will be placed in drums/buckets, and the drums/buckets will be marked. Each stream will have its own bucket/drum.
- Universal Waste (UW) is a general descriptive term used to describe wastes that are generated by a large, diverse population. Businesses as well as unregulated households generate UW. This term is intended to be broad so that a wider range of wastes may be managed under the reduced requirements of the Universal Waste Rule (UWR). The UWR is intended to promote recycling as well as the proper disposal of wastes, if recycling is not a viable option by easing certain regulatory requirements.
- The UWR applies to several wastes generated at the Genesis facilities. These include the following:
 - **Batteries**, other than automotive-type (AA, AAA, C cells, D cells, mercury, nickel-cadmium, silver button batteries, small sealed lead-acid batteries, alkaline batteries and carbon-zinc batteries), may contain a corrosive chemical that can cause burns as well as toxic heavy metals like cadmium.
 - **Small electronic devices**, include PDAs, cell phones, calculators, and component parts, etc.
 - **Large electronic devices** such as cathode ray tubes (CRTs), flat panel monitors, computers, or peripherals often contain heavy metals like lead, cadmium, copper, and chromium.
 - **Lamps** such as fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium and metal halide may contain mercury vapor that may be released to the environment when they are broken.
 - **Aerosol cans** may contain products that are toxic.
 - **Mercury-containing devices** - Mercury is a toxic metal that can cause harm to people and animals including nerve damage and birth defects. If mercury is released into the environment it can contaminate the air we breathe and enter streams, rivers, and the ocean, where it can contaminate fish that people eat.
- Limitations
 - Universal wastes are allowed to be accumulated for one year from time of initial generation. Initial generation start date must be clearly shown on the universal waste label. Notify the site Environmental Specialist if a universal waste container is within two months of the accumulation limit.

7.0 DOCUMENTATION

The Following documentation will be collected and maintained:

- Waste management permits, notices, and/or authorizations, as applicable;
- Copies of waste manifests;
- Copies of signed Land Disposal Restriction (LDR) forms
- Recycler receipts/dump tickets, as applicable;
- Hazardous Waste Exception Reporting (see Section 3.2.4(13) above);
- Waste analysis reports, if required;
- Waste storage area inspections.

Waste manifests and any supporting documents will be maintained for a minimum of three years.

8.0 ANNUAL REPORTING

In accordance with condition WASTE-9, on an annual basis the following **information will be submitted to the CEC** with the Annual Compliance Report.

- Actual volume of wastes generated;
- Waste management methods used during the year; and
- Comparison of the actual waste generation and management methods used to those proposed in this Waste Management Plan.

Section 34

COMPLIANCE-5 – Compliance Matrix

A compliance matrix shall be submitted by the project owner to the CPM along with each monthly and annual compliance report. The compliance matrix is intended to provide the CPM with the current status of all Conditions of Certification in a spreadsheet format.

Agency	COC	Title	Description	Responsibility	COC Verification	Date Final Due	Comments
CEC	AQ-3	Emissions testing	Submit emissions compliance documentation in annual report	Operations	Submitted no later than 45 days after test completion	End of June every year	2019 Emissions testing was performed in the month of March 2019
CEC	AQ-5	Aux. Boiler	Operational Hours on each Aux. Boiler	Operations	Boiler hours of use	Annual Compliance	2019 Emissions testing was performed in the month of March 2019
CEC	AQ-10	Carbon Absorption System	The project owner shall submit information demonstrating compliance with the substantive and recordkeeping provisions of this condition in the Annual Compliance Report	Operations	HTF System	Annual Compliance	2019 Emissions testing was performed in the month of March 2019
CEC	AQ-12	HTF Ullage/Exp. Tanks- Inspection, Maintenance and Monitoring Plan	Submit volume of HTF removed and added in Annual Report.	Operations	Annually	Annual Compliance	2019 Emissions testing was performed in the month of March 2019
CEC	AQ-15	HTF Ullage/Exp. Tanks - Compliance Testing Plan and Reporting	Submit to the District a compliance test protocol.	Operations	Annually	Annual Compliance	2019 Emissions testing was performed in the month of March 2019

CEC	AQ-16	VOC and Benzene verification	Include emission results documentation in Annual Report.	Operations	Annually	Annual Compliance	2019 Emissions testing was performed in the month of March 2019
CEC	AQ-20	Drift Eliminator Monitoring and Reporting - Cooling Towers	Submit compliance documentation on operating emission rates with Annual Report.	Operations	Annually	Annual Compliance	Monthly visual inspections occurred during the year 2019. It is set up electronically and sent to the Plant Technician Leader.
CEC	AQ-30	Sulfur content of diesel	Submit sulfur content	Operations	Annually	Annual Compliance	From Vendor
CEC	AQ-39	Engine use limitations	Submit compliance documentation in Annual Report.	Operations	Annually	Annual Compliance	ACR
CEC	AQ-50	Gasoline throughput	Maintain gasoline throughput and submit in annual Report	Operations	Annually	Annual Compliance	ACR
CEC	AQ-SC6	Fleet Plan for operations vehicles	Update Fleet Plan every other year. Submit the Fleet Plan with Annual Report.	Operations		Annual Compliance	Completed February 2019
CEC	BIO-2	Designated Biologist Duties	Designated Biologists Duties			Annual Compliance	Not utilized in 2019. West responded to any finding the site noted. Mortalities are kept in a freezer on site with logs.
	Bio-4	Designated Biologist Reports	Designated Biologists reports			Annual Compliance	There were no findings of Wildlife in 2019, with the exception of avian mortalities., BBCS was reported throughout 2017.
CEC	BIO-6	Worker Environmental Awareness Program (WEAP)	Keep signed training forms on site for >6m after start of operations and 6m after staff dismissal.	Operations		Annual Compliance	Compiled throughout the year.
	BIO-16	Avian Protection Plan	Avian Protection Plan			Annual Compliance	All Avian mortalities were reported to West and documented on the SPUT
	BIO-19	Special Status Plants	Special Status Plants			Annual Compliance	Alice Karl report has not been received to date.

CEC	BIO-21	Evaporation Pond Netting and Monitoring	Netting cannot touch the water in evap ponds.	Operations	Ongoing	Annual Compliance	Complied, IOW checks
CEC	BIO-22	Mitigation for Impacts to State Waters	Provide a copy of Condition of Certification BIO-22 to all on-site personnel (detailing Stop Work Authorities).	Genesis ECM/Operations	Ongoing, part of the WEAP training	Annual Compliance	WEAP training performed on all new personnel to site, and renewed by site personnel.
CEC	BIO-22	Mitigation for Impacts to State Waters	Submit a report of monitoring and management of compensation lands.	Operations	Jan-31 Annually	Annual Compliance	See Wildlands Report
	Bio-27	Couch's Spade foot Measures				Annual Compliance	Complete
CEC	HAZ-1	Hazardous Materials list of approved substances	Submit a list of haz mats contained at the facility in the Annual Compliance Report.	Fluor / Operations	Annually	Annual Compliance	Included in ACR
CEC	HAZ-6	Operations Site Security Plan	Submit statement confirming all employee background checks are complete and appended to Security Plan as part of the Annual Compliance Report.	Fluor / Operations	Annually	Annual Compliance	No change since CEC inspection. Not included in ACR due to National Security
CEC	Soil & Water-1	Drainage Erosion and Sedimentation Control Plan	Submit results of monitoring and maintenance activities in Annual Compliance Report.	Fluor / Operations	Annually	Annual Compliance	completed as needed in 2019
CEC	Soil & Water-2	GW Level Monitoring, Mitigation and Reporting	Submit a 5 year monitoring report.	Operations	5ys after start of operation	Annual Compliance	In attachment

CEC	Soil & Water-5	Construction and Operation Water Use	Submit an annual report of water usage (g/month and total).	Fluor / Operations	Annually	Annual Compliance	Included In ACR
CEC	Soil & Water-13	Channel Maintenance Program	Submit a Channel Maintenance Program Annual Report, Channel Maintenance Work Plan, and Lessons Learned with the Annual Compliance Report.	Operations	Annually	Annual Compliance	Included In ACR
CEC	Soil & Water-16	Groundwater Production Monitoring	File an annual "Notice of Extraction and Diversion of Water" with the SWRCB. Include a copy of the Notice in the Annual Compliance Report.	Fluor / Operations	Annually	Annual Compliance	Included in ACR
	Soil & Water-20	Groundwater Level Plan	Groundwater Level Plan			Annual Compliance	Included in ACR
CEC	TLSN-3	Combustible Material Inspections	Submit summary of inspection results and fire prevention activities in the Annual Compliance Report for the first 5 years of operation.	Operations	5yrs Annually	Annual Compliance	Included in ACR
CEC	VIS-1	Surface Treatment of Non-Mirror Project Structures and Buildings	Include a status report regarding surface maintenance in the Annual Compliance Report.	Operations	Annually	Annual Compliance	Included in the ACR

CEC	WASTE-9	Operation Waste Management Plan	Submit actual volume of waste generated and management methods used in each Annual Compliance Report.	Mosley	Annually	Annual Compliance	Included in ACR
CEC	Worker Safety-9	Riv Co Fire Dept Joint Training Exercises	Include joint exercise training documentation with the RCFD and other solar plants in the annual compliance report.	Operations	pt start of commissioning Annually	Annual Compliance	Included in ACR
CEC	COMPLIANCE-5	Compliance Matrix	Submit Annual Compliance Matrix	Operations	Annually	Annual Compliance	On-going