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GENESIS SOLAR ENERGY CENTER

California Energy Commission Docket #09-AFC-8 Annual Report for Reporting Year 2018

1. *an updated compliance matrix showing the status of all Conditions of Certification (fully satisfied conditions do not need to be included in the matrix after they have been reported as completed);*
2. *a summary of the current project operating status and an explanation of any significant changes to facility operations during the year;*
3. *documents required by specific conditions to be submitted along with the Annual Compliance Report. Each of these items must be identified in the transmittal letter with the condition it satisfies, and submitted as attachments to the Annual Compliance Report;*
4. a cumulative listing of all post-certification changes approved by the Energy Commission or cleared by the CPM;
5. an explanation for any submittal deadlines that were missed, accompanied by an estimate of when the information will be provided;
6. a listing of filings submitted to, or permits issued by, other governmental agencies during the year;
7. a projection of project compliance activities scheduled during the next year;
8. a listing of the year's additions to the on-site compliance file;
9. an evaluation of the on-site contingency plan for unplanned facility closure, including any suggestions necessary for bringing the plan up to date (see Compliance Conditions for Facility Closure addressed later in this section); and
10. a listing of complaints, notices of violation, official warnings, and citations received during the year, a description of the resolution of any resolved matters, and the status of any unresolved matters.

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 2018 occurred from March 5 through March 26, 2018.

Environmental Health and Safety

Genesis Solar, LLC experienced one (1) injury in 2018. There were 93596.00 total man hours worked in 2018.

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 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, 2018

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, 2018

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)

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.

- Data below includes days that the Auxiliary Boilers did not run.

	Aux Boiler			
	Unit 1		Unit 2	
	Daily Hours	Daily Fuel (lb)	Daily Hours	Daily Fuel (lb)
1/2/17 0:01	13.4	121	13.4	123
1/3/17 0:01	13.9	125	13.95	126
1/4/17 0:01	8.2	73	7.6	66
1/7/17 0:01	2.3	29	0.0	0
1/8/17 0:01	3.2	32	1.9	21
1/12/17 0:01	13.1	116	13.4	123
1/13/17 0:01	9.8	86	9.8	86
1/20/17 0:01	12.6	119	12.5	117
1/21/17 0:01	8.4	79	8.3	76
1/22/17 0:01	13.0	114	13.5	121
1/23/17 0:01	8.8	77	8.6	76
2/6/17 0:01	4.7	46	3.2	34
2/11/17 0:01	0.8	13	13.5	124
2/12/17 0:01	4.4	43	7.0	65
2/15/17 0:01	0.0	0	2.9	29
2/16/17 0:01	9.9	82	13.6	120

2/17/17 0:01	5.1	42	6.6	59
2/25/17 0:01	13.3	111	9.9	92
2/26/17 0:01	8.1	68	7.9	70
3/2/17 0:01	9.2	76	8.5	84
3/3/17 0:01	1.8	15	2.4	23
3/4/17 0:01	8.7	235	0.0	0
3/7/17 0:01	0.0	0	8.8	234
4/5/17 0:01	0.6	15	0.3	3
5/7/17 0:01	13.7	135	11.2	100
5/8/17 0:01	8.4	86	8.7	77
6/17/17 0:01	0.4	7	0.1	1
6/18/17 0:01	1.3	16	0.6	4
6/23/17 0:01	0.5	10	0.0	0
7/7/17 0:01	0.0	0	0.4	3
7/8/17 0:01	0.6	12	1.2	9
7/17/17 0:01	0.7	16	1.0	7
7/21/17 0:01	0.8	15	1.6	12
7/31/17 0:01	2.0	24	5.2	33
8/1/17 0:01	7.8	75	10.1	61
9/2/17 0:01	3.2	31	2.6	15
10/18/17 0:01	0.0	0	0.4	3
10/19/17 0:01	0.0	0	1.0	8
10/20/17 0:01	1.1	11	0.0	0
11/5/17 0:01	8.0	75	10.8	66
11/6/17 0:01	7.4	62	7.5	45
11/11/17 0:01	0.8	15	0.8	6
11/14/17 0:01	2.6	26	2.8	18

11/15/17 0:01	6.8	69	9.3	64
11/16/17 0:01	4.8	41	7.9	47
11/25/17 0:01	0.7	10	0.9	7
11/26/17 0:01	0.0	0	4.8	29
11/27/17 0:01	10.6	97	13.6	81
11/28/17 0:01	13.1	127	13.8	96
11/29/17 0:01	6.2	67	6.0	41
12/5/17 0:01	0.0	0	8.2	51
12/6/17 0:01	0.0	0	8.4	52
12/17/17 0:01	6.0	-53	0.0	-124