

Facility # N-10188  
COMBINED SOLAR TECHNOLOGIES, INC.  
PO BOX 583  
TRACY, CA 95304

## **AUTHORITY TO CONSTRUCT (ATC)**

### **QUICK START GUIDE**

1. **Pay Invoice:** Please pay enclosed invoice before due date.
2. **Fully Understand ATC:** Make sure you understand ALL conditions in the ATC prior to construction, modification and/or operation.
3. **Follow ATC:** You must construct, modify and/or operate your equipment as specified on the ATC. Any unspecified changes may require a new ATC.
4. **Notify District:** You must notify the District's Compliance Department, at the telephone numbers below, upon start-up and/or operation under the ATC. Please record the date construction or modification commenced and the date the equipment began operation under the ATC. A startup inspection may be required prior to receiving your Permit to Operate.
5. **Source Test:** Schedule and perform any required source testing. See [http://www.valleyair.org/busind/comply/source\\_testing.htm](http://www.valleyair.org/busind/comply/source_testing.htm) for source testing resources.
6. **Maintain Records:** Maintain all records required by ATC. Records are reviewed during every inspection (or upon request) and must be retained for at least 5 years. Sample record keeping forms can be found at [http://www.valleyair.org/busind/comply/compliance\\_forms.htm](http://www.valleyair.org/busind/comply/compliance_forms.htm).

By operating in compliance, you are doing your part to improve air quality for all Valley residents.

**For assistance, please contact District Compliance staff at  
any of the telephone numbers listed below.**

**Samir Sheikh**  
Executive Director/Air Pollution Control Officer

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**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-8000 FAX: (559) 230-6061

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: (661) 392-5500 FAX: (661) 392-5585

# AUTHORITY TO CONSTRUCT

**PERMIT NO:** N-10188-1-0

**ISSUANCE DATE:** 06/19/2023

**LEGAL OWNER OR OPERATOR:** COMBINED SOLAR TECHNOLOGIES, INC.

**MAILING ADDRESS:** PO BOX 583  
TRACY, CA 95304

**LOCATION:** 9251 W ARBOR AVE  
TRACY, CA 95304

**EQUIPMENT DESCRIPTION:**  
WALNUT SHELL RECEIVING AND HANDLING OPERATION

## CONDITIONS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Walnut shells shall be received via truck trailers and shall never be dumped onto the ground or stockpiled onto the ground; rather the trailers shall be docked and metered slowly into the bins for conveying the material to the boiler(s) using enclosed conveying system. [District Rule 2201 and 4102]
5. PM10 emissions from walnut shell receiving and transferring operations shall not exceed 0.00152 pounds per ton of material processed. [District Rule 2201]
6. The amount of walnut shells received shall not exceed any of the following limits: 96 tons/day and 33,600 tons/year. . [District Rule 2201]
7. The owner or operator shall keep records of the following items: (a) Date, (b) Amount of walnut shells received (tons/day) and (c) An up-to-date record of the total amount of walnut shells received (tons) during a given year. [District Rule 2201]
8. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO



Brian Clements, Director of Permit Services

N-10188-1-0: Jun 19 2023 9:10AM -- KAH/LONJ : Joint Inspection NOT Required

# AUTHORITY TO CONSTRUCT

**PERMIT NO:** N-10188-2-0

**ISSUANCE DATE:** 06/19/2023

**LEGAL OWNER OR OPERATOR:** COMBINED SOLAR TECHNOLOGIES, INC.

**MAILING ADDRESS:** PO BOX 583  
TRACY, CA 95304

**LOCATION:** 9251 W ARBOR AVE  
TRACY, CA 95304

**EQUIPMENT DESCRIPTION:**

65.6 MMBTU/HR ZOZEN BOILER CO LTD., MODEL ZZ-25/4.29/400-M, STOKER-TYPE WALNUT-SHELL FUEL FIRED BOILER WITH UREA INJECTION SYSTEM, A CYCLONE, A BAGHOUSE FILTER SYSTEM, AND A SELECTIVE CATALYTIC REDUCTION SYSTEM

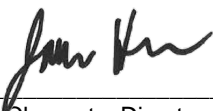
## CONDITIONS

1. The combined total NOx emissions from the emission units at facilities N-8887 and N-10188 shall not exceed 19,999 pounds during any consecutive 12-month period. [District Rule 2201]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100]
4. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100]
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
6. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
7. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]

### CONDITIONS CONTINUE ON NEXT PAGE

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Samir Sheikh, Executive Director / APCO



Brian Clements, Director of Permit Services

N-10188-2-0: Jun 19 2023 9:10AM -- KAH/LONJ : Joint Inspection NOT Required

8. During all types of operation, ammonia injection into the SCR system shall occur once the minimum temperature established during the initial source testing at the catalyst face has been reached to ensure NO<sub>x</sub> emission reductions can occur with a reasonable level of ammonia slip. The minimum temperature established during the initial testing shall be administratively included in the permit to operate. The established temperature may be modified administratively as necessary following any replacement of the SCR catalyst material. [District Rule 2201]
9. The SCR system shall be equipped with a continuous temperature monitoring system to measure and record the temperature at the catalyst face. [District Rule 2201]
10. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201]
11. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201]
12. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the filters. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201]
13. The differential pressure gauge reading range shall be established per manufacturer's recommendation at time of start up inspection. [District Rule 2201]
14. Material removed from the baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201]
15. Replacement bags numbering at least 10% of the total number of bags in the baghouse shall be maintained on the premises. [District Rule 2201]
16. Differential operating pressure shall be monitored and recorded continuously each day this boiler operates. [District Rule 2201]
17. The baghouse shall be thoroughly inspected annually for tears, scuffs, abrasions, holes, or any evidence of particulate matter breakthrough and shall be replaced as needed. [District Rule 2201]
18. Commissioning activities are defined as, but not limited to, all testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers and the construction contractor to ensure safe and reliable steady state operation of the boiler and associated system. [District Rule 2201]
19. Commissioning period shall commence when all mechanical, electrical, and control systems are installed and individual system startup has been completed, or when the boiler is first fired, whichever occurs first. The commissioning period shall terminate when the boiler has completed initial source testing, completed final boiler tuning, and is available for commercial operation. [District Rule 2201]
20. During the commissioning period, the emission rates from the boiler system shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 45.6 lb/day; VOC (as CH<sub>4</sub>) - 29.2 lb/day; CO - 562.8 lb/day; PM<sub>10</sub> - 5.7 lb/day; SO<sub>x</sub> (as SO<sub>2</sub>) - 55.1 lb/day or NH<sub>3</sub> (from SCR system) - 20.3 lb/day. [District Rule 2201]
21. During commissioning period, NO<sub>x</sub>, CO and SO<sub>x</sub> emissions rate shall be monitored and recorded using installed and calibrated CEMS. [District Rule 2201]
22. Commissioning period PM<sub>10</sub>, VOC and NH<sub>3</sub> emissions rate shall be estimated using emission factors (lb/MMBtu) from the initial source testing, actual fuel heat input rate (MMBtu/hr), and hours of operation (hr/day). [District Rule 2201]
23. The total annual mass emissions of NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, VOC and NH<sub>3</sub> emissions that are emitted during the commissioning period shall accrue towards the annual emission limits. [District Rule 2201]
24. For commissioning period, the owner or operator shall keep records of following items: (1) Date, (2) Type of commissioning activities performed, (3) Heat input rate to the boiler (MMBtu/hr), (4) Hours of boiler operation (hours), and (5) Daily and annual mass emissions of NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, VOC and NH<sub>3</sub>. [District Rule 2201]
25. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

26. Startup is defined as the period of time beginning when the unit is heated to the operating temperature and pressure from a shutdown status or hot standby condition. [District Rule 2201]
27. Shutdown is defined as the period of time during which a unit is taken from operational to non-operational status by allowing it to cool down from its operating temperature and pressure to an ambient temperature, or to a hot standby condition. [District Rule 2201]
28. Only walnut shells shall be used as fuel in this boiler. [District Rules 2201 and 4102]
29. Upon completing commissioning period, the startup period shall not exceed any of the following limits: 12 hours during any one day and 24 hours per calendar year. [District Rules 2201 and 4352]
30. Upon completing commissioning period, the shutdown period shall not exceed any of the following limits: 12 hours during any one day and 24 hours per calendar year. [District Rules 2201 and 4352]
31. The emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during start-up or shutdown. [District Rule 4352]
32. Upon completing commissioning period, during periods of startup and shutdown, emissions from this boiler shall not exceed any of the following limits: 0.0289 lb-NO<sub>x</sub>/MMBtu (expressed as NO<sub>2</sub>), 0.3575 lb-CO/MMBtu, and 0.0186 lb-VOC/MMBtu (expressed as CH<sub>4</sub>), all emission limits averaged over the entire startup or shutdown period. [District Rule 2201]
33. Upon completing commissioning period, except during periods of startup and shutdown, emissions from this boiler shall not exceed any of the following limits: 0.0179 lb-NO<sub>x</sub>/MMBtu (expressed as NO<sub>2</sub>) over a block 24-hour average basis, 0.071 lb-CO/MMBtu over a block 24-hour average basis, 0.0036 lb-VOC/MMBtu (expressed as CH<sub>4</sub>) over a 30-minute period. [District Rules 2201 and 4352]
34. Upon completing commissioning period, during periods of startup, shutdown or steady state, emissions from this boiler shall not exceed any of the following limits: 0.035 lb-SO<sub>x</sub>/MMBtu (expressed as SO<sub>2</sub>) on a block 24-hour average basis and 0.02 lb-SO<sub>x</sub>/MMBtu (expressed as SO<sub>2</sub>) on a rolling 30-day average basis, and 0.0036 lb-PM<sub>10</sub>/MMBtu (both filterable and condensable). [District Rules 2201 and 4352]
35. Upon completing commissioning period, during periods of startup, shutdown or steady state, ammonia (NH<sub>3</sub>) slip emissions associated with boiler's NO<sub>x</sub> control system shall not exceed 0.0129 lb/MMBtu. [District Rule 2201]
36. Emissions from this boiler shall not exceed any of the following limits: 9,899 lb-NO<sub>x</sub>/year (expressed as NO<sub>2</sub>), 11,021 lb-SO<sub>x</sub>/year (expressed as SO<sub>2</sub>), 1,984 lb-PM<sub>10</sub>/year, 40,026 lb-CO/year, 2,030 lb-VOC/year (expressed as CH<sub>4</sub>) and 7,108 lb-NH<sub>3</sub>/year. These limits are on a 12 consecutive month rolling basis. Compliance with NO<sub>x</sub>, CO and SO<sub>x</sub> limits shall be determined from CEMS data. Compliance with PM<sub>10</sub>, VOC and NH<sub>3</sub> limits shall be determined by calculating emissions using emission factors (the most recent source test results), actual heat input to the boiler, and actual operating time. [District Rule 2201]
37. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO<sub>x</sub>, SO<sub>x</sub>, CO, and O<sub>2</sub> analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081]
38. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
39. Source testing to measure startup and shutdown NO<sub>x</sub>, CO and VOC emissions shall be conducted within 60 days of initial startup. CEMS relative accuracy for NO<sub>x</sub>, SO<sub>x</sub> and CO shall be determined during startup and shutdown source testing in accordance with 40 CFR 60, Appendix F (Relative Accuracy Audit). [District Rule 2201]
40. Source testing to measure steady state NO<sub>x</sub>, CO, PM<sub>10</sub>, SO<sub>x</sub>, VOC, and NH<sub>3</sub> emissions shall be conducted within 60 days of initial startup and at least once 12 months thereafter. [District Rules 2201 and 4352]
41. All emission measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rules 2201 and 4352]

CONDITIONS CONTINUE ON NEXT PAGE

42. No compliance determination shall be established within two hours after a period in which fuel flow to the unit is zero, or is shut off for 30 minutes or longer. [District Rules 2201 and 4352]
43. NOx emissions for source test purposes shall be determined using EPA Methods 7E and 19 or CARB Method 100 and EPA Method 19. [District Rules 1081 and 4352]
44. CO emissions for source test purposes shall be determined using EPA Method 10, EPA Method 3A or CARB Method 100. [District Rules 1081 and 4352]
45. PM10 emissions for source test purposes shall be determined using EPA Methods 201A, 202, and 19. [District Rules 1081 and 4352]
46. In lieu of performing a source test for PM10, the results of the total particulate test may be used for compliance with the PM10 emission limit provided the results include both the filterable and condensable (back half) particulates, and that all particulate matter is assumed to be PM10. If this option is exercised, source testing shall be conducted using CARB Method 5 or EPA Method 5 (including condensable (back half) particulates). [District Rule 1081]
47. Stack gas oxygen shall be determined using EPA Method 3 or 3A or CARB Method 100. [District Rules 1081 and 4352]
48. SOx emissions for source test purposes shall be determined using EPA Method 6, EPA Method 6C, EPA Method 8 or CARB Method 100. [District Rules 1081 and 4352]
49. VOC emissions for source test purposes shall be determined using EPA Method 18, 25A, or 25B, or ARB Method 100. [District Rule 1081]
50. Stack gas velocity shall be determined using EPA Method 2. [District Rules 1081 and 4352]
51. Stack gas moisture content shall be determined using EPA Method 4. [District Rules 1081 and 4352]
52. Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 1081]
53. Testing to determine the higher heating value (HHV) of the fuel used in this boiler shall be conducted at least once every 12 months. [District Rules 1081 and 2201]
54. HHV in the fuel used in this boiler shall be conducted using ASTM 5865-10, EPA Method 19, ASTM D2015 or ASTM D3588 or District-approved equivalent method. [District Rules 1081, 2201 and 4352]
55. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emissions Monitoring System (CEMS) which continuously measures and records the exhaust gas NOx, SOx, CO and O2 or CO2 concentrations for each boiler. CEMS shall monitor emissions during all types of operation, including during startup and shutdown periods, provided the CEMS passes the relative accuracy requirement specified herein during startups and shutdowns periods. If relative accuracy of CEMS cannot be demonstrated during startup or shutdown periods, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained during initial source testing. [District Rules 1080, 2201 and 4352]
56. Each CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rules 1080, 2201 and 4352]
57. Each CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 for CEMS and Part 60, Appendix B Performance Specification 6 (PS6), or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rules 1080 and 2201]
58. In accordance with 40 CFR Part 60, Appendix F, NOx, SOx, CO and O2 or CO2 monitors must be audited at least once each calendar quarter, by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted three of four calendar quarters, but no more than three calendar quarters in succession. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rules 1080, 2201 and 4352]
59. The owner/operator shall perform a RATA for NOx, SOx, CO and O2 or CO2 (as specified in 40 CFR Part 60, Appendix F) and flow rate sensor at least once every four calendar quarters. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the CEMS equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F for CEMS equipment. [District Rules 1080, 2201 and 4352]

CONDITIONS CONTINUE ON NEXT PAGE

60. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080]
61. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rules 1080, 2201 and 4352]
62. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rules 1080 and 2201]
63. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system and shall make CEMS data available to the District's automated polling system on a daily basis [District Rules 1080, 2201 and 4352]
64. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080]
65. The owner or operator shall maintain the following records for CEMS equipment: (1) Date, time and duration of any malfunction; (2) Date of performance testing; (3) Date of evaluations, calibrations, checks, and adjustments; and (4) Date and time period for which CEMS was inoperative. [District Rules 1080, 2201 and 4352]
66. The owner or operator shall maintain records of NO<sub>x</sub>, SO<sub>x</sub> and CO emissions and submit a written report each calendar quarter to the District containing the following information for each operating day: (1) Calendar date; (2) NO<sub>x</sub> (expressed as NO<sub>2</sub>), SO<sub>x</sub> and CO emission rate (lb/hr) measured at the exhaust of each boiler; (3) NO<sub>x</sub> (expressed as NO<sub>2</sub>), SO<sub>x</sub> and CO emissions rate factor (lb/MMBtu, over a block 24-hour average basis), (4) Total daily NO<sub>x</sub>, SO<sub>x</sub> and CO emission rates (lb/day) calculated at the end of each operating day from the measured total hourly NO<sub>x</sub>, SO<sub>x</sub> and CO emission rates; (5) The 30-day rolling average SO<sub>x</sub> emission rate (lb/MMBtu); (6) The total monthly NO<sub>x</sub>, SO<sub>x</sub> and CO emission rates (lb/month) calculated at the end of each month using total daily NO<sub>x</sub>, SO<sub>x</sub> and CO emissions rates; (7) The total annual NO<sub>x</sub>, SO<sub>x</sub> and CO emission rates (lb/year, on a rolling 12-month basis) calculated at the end of each month using total monthly NO<sub>x</sub> emission rate; (8) Identification of the operating days when NO<sub>x</sub>, SO<sub>x</sub> and CO emission rates are in excess of the permitted levels, with the reasons for such excess emissions as well as a description of corrective actions taken; (9) Identification of the operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; (10) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding such data; (11) Identification of each parameter used in calculations; (12) Identification of the times when the pollutant concentration exceeded full span of the CEMS; (13) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 6; (14) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of Part 60; and (15) A negative declaration when no excess emissions occurred. The report is due on the 30th day following the end of the calendar quarter. [District Rules 1080, 2201 and 4352]
67. The owner or operator may submit electronic quarterly reports in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the District. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this permit was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the District to obtain their agreement to submit reports in this alternative format. [District Rules 1080, 2201 and 4352]
68. The owner or operator shall maintain an operating log that includes, on a daily basis: (1) Actual local startup and shutdown time, (2) Total hours of operation, (3) Duration of each start-up, (4) Duration of each shutdown, (5) Total duration of all startups occurred in a given calendar year, (6) Total duration of all shutdowns occurred in a given calendar year, (7) SCR face temperature records, (8) Baghouse differential pressure records, (9) Quantity of the fuel combusted in this boiler. [District Rule 2201]
69. The owner or operator shall maintain records of monthly and annual (12-month rolling basis) PM<sub>10</sub>, VOC and NH<sub>3</sub> emissions. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

70. The owner or operator shall keep records of all maintenance of the baghouse, including all change outs of bags or filter media. These records shall include identification of the equipment, date of inspection, any corrective action taken, and identification of the personnel performing the inspection. [District Rule 2201]
71. The owner or operator shall keep monthly records of the type, quantity, and the HHV of the fuel used in this boiler. [District Rule 4352]
72. Except during periods of startup, shutdown, or malfunction, PM emissions from this boiler shall not exceed 0.030 lb/MMBtu. [40 CFR 60.43c(e)(1) and 40 CFR 60.43c(d)]
73. EPA Method 1 of Appendix A of 40 CFR Part 60 shall be used to select the sampling site and the number of traverse sampling points. [40 CFR 60.45c(a)(1)]
74. EPA Method 3A or 3B of Appendix A-2 of 40 CFR Part 60 shall be used for gas analysis when applying Method 5 of Appendix A-3 of 40 CFR Part 60 or EPA Method 17 of Appendix A-6 of 40 CFR Part 60. [40 CFR 60.45c(a)(2)]
75. PM emissions shall be determined EPA Method 5, or 17 of Appendix A of 40 CFR Part 60 provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). [40 CFR 60.45c(a)(3)]
76. Each PM testing run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dry standard cubic meters (dscm) [60 dry standard cubic feet (dscf)] except that smaller sampling times or volumes may be approved by the District when necessitated by process variables or other factors. [40 CFR 60.45c(a)(4)]
77. For Method 5 of Appendix A in 40 CFR Part 60, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160 ±14 °C (320±25 °F). [40 CFR 60.45c(a)(5)]
78. For determination of PM emissions, an oxygen (O<sub>2</sub>) or carbon dioxide (CO<sub>2</sub>) measurement shall be obtained simultaneously with each run of Method 5, or 17 of Appendix A of 40 CFR Part 60 by traversing the duct at the same sampling location. [40 CFR 60.45c(a)(6)]
79. For each testing run using Method 5 or 17 of Appendix A of 40 CFR Part 60, the emission rates expressed in ng/J (lb/MMBtu) heat input shall be determined using: (i) The O<sub>2</sub> or CO<sub>2</sub> measurements and PM measurements obtained under this section, (ii) The dry basis F factor, and (iii) The dry basis emission rate calculation procedure contained in Method 19 of Appendix A of 40 CFR Part 60. [40 CFR 60.45c(a)(7)]
80. Except during periods of startup, shutdown, or malfunction, exhaust discharge from this unit shall not exhibit greater than 20 percent opacity (6-minute average), with an exception of one 6-minute period per hour of not more than 27 percent opacity. [40 CFR 60.43c(c) and 40 CFR 60.43c(d)]
81. EPA Method 9 of Appendix A-4 and the procedure in section 60.11 of 40 CFR Part 60 shall be used for determining the opacity of stack emissions. [40 CFR 60.45c(a)(8) and 40 CFR 60.47c(a)]
82. The owner or operator shall install, operate and maintain a bag leak detection system to monitor the performance of the fabric filter baghouse according to the requirements in 40 CFR 60.48Da(o)(4) of 40 CFR Part 60. [40 CFR 60.47c(a)]
83. The observation period for Method 9 of appendix A-4 of this part performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation. [40 CFR 60.47c(a)]
84. During the latest Method 9 test, if no visible emissions are observed, a subsequent Method 9 must be completed within 12 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later. [40 CFR 60.47c(a)(1)(i)]
85. During the latest Method 9 test, if visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 must be completed within 6 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later. [40 CFR 60.47c(a)(1)(ii)]
86. During the latest Method 9 test, if the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 must be completed within 3 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later. [40 CFR 60.47c(a)(1)(iii)]

CONDITIONS CONTINUE ON NEXT PAGE



87. During the latest Method 9 test, if the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 must be completed within 45 calendar days from the date that the most recent performance test was conducted. [40 CFR 60.47c(a)(1)(iv)]
88. During the latest Method 9 test, if the maximum 6-minute opacity is less than 10 percent, the owner or operator may, as an alternative to performing subsequent Method 9, elect to perform subsequent monitoring using Method 22 of Appendix A-7 of 40 CFR Part 60 according to the procedures specified in paragraphs 40 CFR 60.47c(a)(2)(i) and (ii). [40 CFR 60.47c(a)(2)]
89. During the latest Method 9 test, if the maximum 6-minute opacity is less than 10 percent, the owner or operator may, as an alternative to performing subsequent Method 9 of, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the District. The observations shall be similar, but not necessarily identical, to the requirements in paragraph 40 CFR 60.47c(a)(2). For reference purposes in preparing the monitoring plan, see OAQPS "Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems." This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Policy Group (D243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods. [40 CFR 60.47c(a)(3)]
90. The owner or operator shall submit notification of the date of construction and actual startup. This notification shall also include design heat input capacity and anticipated annual capacity factor. [40 CFR 60.48c(a)]
91. The owner or operator shall submit excess emission reports, every 6-month period, for any excess emissions from the affected facility that occur during the reporting period and maintain records according to the requirements, as applicable to the visible emissions monitoring method used: (1) For each performance test conducted using Method 9, the owner or operator shall keep the records of (i) Dates and time intervals of all opacity observation periods; (ii) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and (iii) Copies of all visible emission observer opacity field data sheets; (2) For each performance test conducted using Method 22, the owner or operator shall keep the records including the information of (i) Dates and time intervals of all visible emissions observation periods; (ii) Name and affiliation for each visible emission observer participating in the performance test; (iii) Copies of all visible emission observer opacity field data sheets; and (iv) Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements. (3) For each digital opacity compliance system, the owner or operator shall maintain records and submit reports according to the requirements specified in the site-specific monitoring plan approved by the District. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. [40 CFR 60.48c(c) and 40 CFR 60.48c(j)]
92. The owner or operator shall keep records of the date and the amount of each fuel combusted during each operating day. [40 CFR 60.48c(g)(1)]
93. The owner shall keep records of monthly NO<sub>x</sub> emitted from each unit at facilities N-8887 and N-10188. These records shall be used to determine the total NO<sub>x</sub> emissions at the end of each month to demonstrate compliance with NO<sub>x</sub> limit for each 12-consecutive month period. [District Rule 2201]
94. The owner or operator shall retain all records on site for a period of five year following the date of such record. These records shall be made available to the District, CARB and EPA upon request. [District Rules 1070, 2201, and 4352, 40 CFR 60.48c(i)]

# AUTHORITY TO CONSTRUCT

**PERMIT NO:** N-10188-3-0

**ISSUANCE DATE:** 06/19/2023

**LEGAL OWNER OR OPERATOR:** COMBINED SOLAR TECHNOLOGIES, INC.

**MAILING ADDRESS:** PO BOX 583  
TRACY, CA 95304

**LOCATION:** 9251 W ARBOR AVE  
TRACY, CA 95304

**EQUIPMENT DESCRIPTION:**

6,538 GALLONS PER MINUTE MARLEY FIELD COOLING TOWER SERVED BY HIGH EFFICIENCY DRIFT ELIMINATORS

## CONDITIONS

1. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100]
2. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100]
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
6. No hexavalent chromium containing compounds shall be added to cooling tower circulating water. [District Rule 7012]
7. The drift rate shall not exceed 0.0005%. [District Rule 2201]
8. PM10 emissions shall not exceed 0.4 pounds in any one day. [District Rule 2201]

### CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO



Brian Clements, Director of Permit Services

N-10188-3-0: Jun 19 2023 9:10AM -- KAH/LONJ : Joint Inspection NOT Required

9. Compliance with the PM10 emission limit (lb/day) shall be demonstrated by using the following equation:  $\text{Water Recirculation Rate (gal/day)} \times 8.34 \text{ lb/gal} \times \text{Total Dissolved Solids Concentration in the blowdown water (ppm} \times 10\text{E-06)} \times \text{Design Drift Rate (\%)}$ . [District Rule 2201]
10. Compliance with PM10 emission limit shall be determined by blowdown water sample analysis by independent laboratory within 60 days of the initial startup and at least once quarterly thereafter. [District Rule 2201]
11. The owner or operator shall monitor and record water recirculation rate (gal/day) at least once daily when the equipment is in operation. [District Rule 2201]
12. The owner or operator shall keep records of the date and PM10 emissions (lb/day). [District Rule 2201]
13. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

# AUTHORITY TO CONSTRUCT

**PERMIT NO:** N-10188-4-0

**ISSUANCE DATE:** 06/19/2023

**LEGAL OWNER OR OPERATOR:** COMBINED SOLAR TECHNOLOGIES, INC.

**MAILING ADDRESS:** PO BOX 583  
TRACY, CA 95304

**LOCATION:** 9251 W ARBOR AVE  
TRACY, CA 95304

**EQUIPMENT DESCRIPTION:**

DRY SORBENT RECEIVING AND STORAGE OPERATION WITH ONE 1,300 CUBIC FOOT (APPROX. DIMENSIONS 26 FEET TALL, 8 FEET DIAMETER) SILO SERVED BY A DUST COLLECTION SYSTEM

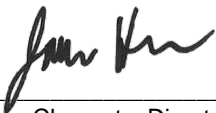
## CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. Visible emissions from the bin vent filter or dust collector serving the storage silo shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]
5. The bin vent filter or dust collector shall be maintained and operated according to manufacturer's specifications. [District Rule 2201]
6. The bin vent filter or dust collector cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201]
7. The bin vent filter or dust collector system shall be equipped with a pressure differential gauge to indicate the pressure drop across the filters. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201]
8. The differential pressure gauge reading range shall be established per manufacturer's recommendation at time of start up inspection. [District Rule 2201]

### CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO



Brian Clements, Director of Permit Services

N-10188-4-0 : Jun 19 2023 9:10AM -- KAH/LONJ : Joint Inspection NOT Required

9. Material removed from the bin vent filter or dust collector system shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201]
10. Replacement bags numbering at least 10% of the total number of bags in the bin vent filter or dust collector shall be maintained on the premises. [District Rule 2201]
11. Only trona or hydrated lime shall be received as a dry sorbent material. [District Rules 4102 and 2201]
12. PM10 emissions from dry sorbent material receiving and storage operation shall not exceed 0.0049 pounds per ton of material processed. [District Rule 2201]
13. No more than 25 tons of dry sorbent material shall be received in any one day. [District Rule 2201]
14. The owner or operator shall keep records of the following items: (a) Date, (b) Name of the material, (c) Quantity of the material received (tons/day) and (d) An up-to-date record of the total quantity of the materials received (tons) during a given year. [District Rule 2201]
15. Differential operating pressure shall be monitored and recorded on each day the operator loads the silo. [District Rule 2201]
16. Bin vent filter or dust collector shall be thoroughly inspected annually for tears, scuffs, abrasions, holes, or any evidence of particulate matter breakthrough and shall be replaced as needed. [District Rule 2201]
17. Records of all maintenance of the bin vent filter or dust collector system, including all change outs of bags or filter media, shall be maintained. These records shall include identification of the equipment, date of inspection, any corrective action taken, and identification of the personnel performing the inspection. [District Rule 2201]
18. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]