

EXPIRATION DATE:
JUNE 13, 1997

PERMIT NO:
94-PO-18

SHASTA COUNTY
DEPARTMENT OF RESOURCE MANAGEMENT
AIR QUALITY MANAGEMENT DISTRICT

SIERRA PACIFIC INDUSTRIES, ANDERSON DIVISION

(Applicant)

IS HEREBY GRANTED AN
AUTHORITY TO CONSTRUCT

SUBJECT TO CONDITIONS NOTED

80000 LB/HR WOOD FIRED BOILER

(Nature of Activity)

AT 19794 RIVERSIDE AVE., ANDERSON, CA 96007

DATE ISSUED: JUNE 15, 1995

APPROVED: 

Air Pollution Control Officer

EQUIPMENT UNDER PERMIT

One 80,000 lb/hr Wellons Wood Fired Two Cell Boiler
One 144 Tube Multiple Cone Ash Collector
One Two-Stage Electrostatic Precipitator
Selective Non-Catalytic Reduction Ammonia Injection System
One 30400 cu.ft. Fuel Storage Bin

GENERAL PERMIT CONDITIONS

1. This Authority to Construct is not transferable from either one location to another, one piece of equipment to another, or from one person to another.
2. Equipment is to be maintained so that it operates as it did when the permit was issued.
3. This Authority to Construct shall be valid for a period of eighteen (18) months from the issuance date in accordance with the Code of Federal Regulations Part 52.21(r)(2).
4. Acceptance of this permit is deemed acceptance of all conditions as specified. Failure to comply with any condition of this permit or the Rules and Regulations of the Shasta County Air Quality Management District (District) shall be grounds for revocation, either by the Air Pollution Control Officer (APCO) or the Air Pollution Control Hearing Board.
5. The District reserves the right to amend this permit, if the need arises, in order to insure compliance of this facility or to abate any public nuisance.

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6. If any provision of this permit is found invalid, such finding shall not affect the remaining provisions.
7. All equipment, facilities, and systems shall be designed to be operated in a manner that minimizes air pollutant emissions and maintains compliance with the conditions of this permit and the regulations of the District.
8. Periods of upset, breakdown, or malfunctions that may affect emission levels shall be reported to the District within four (4) hours of the occurrence. In no event shall the equipment be operated in an unexcused or malfunctioning state past the end of the first shift or twenty-four (24) hours, whichever occurs first (District Rule 3:10).
9. This facility is subject to all applicable requirements of the Air Toxics "Hot Spots" Information and Assessment Act of 1987, as cited in *California Health and Safety Code* Sections 44300 et seq.
10. The right of entry described in *California Health and Safety Code* Section 41510, Division 26, shall apply at all times.
11. The operating staff of this facility shall be advised of and familiar with all the conditions of this permit.
12. Periods of scheduled maintenance or scheduled system downtime shall be reported to the District at least twenty-four (24) hours prior to shutdown.
13. This facility is subject to the applicable provisions of Title V of the Federal Clean Air Act of 1990.

OPERATING CONDITIONS

14. Wood waste shall constitute the only fuel allowed for use at this facility. Chemically treated wood waste shall not be allowed as fuel for this facility.
15. Wood fuel shall not be charged to the boiler at a rate which exceeds 26,598 lbs. per hour (wet basis).
16. The opacity of the boiler stack discharge shall not exceed 20 percent equivalent opacity for a period greater than six (6) minutes in any one (1) period or 40 percent equivalent opacity for a period greater than three (3) minutes in any one (1) hour period.

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17. The following air pollution control equipment shall be used at all times when the combustion process is occurring:
 - a. multiclone collector;
 - b. electrostatic precipitator;
 - c. combustion controls;
18. The Selective Non-Catalytic NOx reduction injection system, as specified in Condition 19 shall be utilized as necessary to meet the emission limit for oxides of nitrogen noted in Condition 23.
19. Best available control technology (BACT) for this facility shall be defined as:
 - a. for particulate matter:
 - (1) multiclone collector
 - (2) electrostatic precipitator (minimum two-stage unit design)
 - b. for carbon monoxide and volatile organic compounds:
 - (1) control of underfire air
 - (2) control of overfire air
 - (3) control of fuel feed rate
 - (4) control of fuel moisture content
 - (5) control of combustion excess air
 - c. for oxides of nitrogen, a Selective Non-Catalytic Reduction Ammonia injection system including an auto/manual NOx control station to monitor exhaust gas temperatures and NH3 injection rates.
20. The project owner/operator shall maintain, calibrate, and operate the following continuous emission monitors (CEMS) for the boiler at all times when the combustion process is occurring:
 - a. stack gas opacity monitor;
 - b. stack gas carbon monoxide monitor;
 - c. stack gas oxides of nitrogen monitor;
 - d. stack gas carbon dioxide monitor;
 - e. stack gas volumetric flowrate.

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21. The continuous emission monitors shall meet all applicable design and quality assurance requirements specified in Federal Register Parts 40 CFR 60.13 and 40 CFR 60, Appendix F, and Specifications 1, 2, 3 & 4 of Appendix B. Each of the above monitors shall have its data recorded on a separate chart. The chart printout for each of the above devices shall be clearly labeled as to the scale setting and proper units. A computer data acquisition system which has the capability of interpreting the sampling data and producing a summary report of average hourly and daily data concentrations for monthly reporting is also required.
22. The project operator/owner shall monitor the following combustion and control parameters on a continuous basis unless otherwise noted:
- fuel feed rate;
 - combustion temperature (at the superheater tube area);
 - temperature at air heater outlet;
 - steam production rate;
 - ammonia injection rate;
 - fuel moisture content (intermittent basis).
23. The following BACT emission limitations shall apply to the boiler when burning wood fuel and are based upon a maximum input to the boiler of 116.4 million Btu per hour:
- particulate matter emissions shall not exceed 0.01 gr/dscf at standard temperature and pressure at 12 percent CO₂ as determined by EPA Method 5, front half only. Particulate matter shall also be limited to seven (7) pounds per hour and 29 tons per year in accordance with CARB Method 5, including probe wash, filter catch, impinger catch, and solvent extract.
 - total hydrocarbons (as methane) shall not exceed 12 pounds per hour and 51 tons per year in accordance with CARB Method 100.
 - oxides of sulfur ^{Sulfur Dioxide} shall not exceed 6.1 pounds per hour and 30 tons per year in accordance with CARB Method 100;
 - oxides of nitrogen shall not exceed the more stringent of 21 pounds per hour, or 100 ppm at 12% CO₂ (24 hour average), or 115 ppm at 12% CO₂ (3 hour average). The annual emissions of NOx shall not exceed 100 tons per year. The NOx emissions shall be analyzed by CARB Method 100;

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- e. carbon monoxide shall not exceed the more stringent of 133 pounds per hour, or 1000 ppm at 12% CO₂ (24 hour average), or 1500 ppm at 12% CO₂ (3 hour average). The annual emissions of CO shall not exceed 600 tons per year. The CO emissions shall be analyzed by CARB Method 100;
 - f. ammonia slip shall be limited to 20 ppm corrected to 12% CO₂, dry basis, as determined by BAAQMD Method ST-1B.
24. Periodic emission testing shall be required pursuant to District Rule 2:11.a.3.(f). Results of all stack tests shall be forwarded to the District for compliance verification.
25. Monthly emission reports shall be required to be submitted by the 15th of the month following data recording and shall include:
- a. daily average of CO and NO_x emissions expressed in ppm, and lb./Hour (corrected to 12% CO₂) dry basis. All time periods when the boiler is not in operation shall be excluded from the averages. The total monthly hours of operation and the monthly average of CO and NO_x emissions expressed in lbs./hour shall also be included;
 - b. notification of all periods 6 minutes and longer in duration when opacity exceeds 20% and the reason for the excursion;
 - c. notification of all 3 hour and 24 hour averaged periods exceeding the permit limitations for oxides of nitrogen and the reason for the excursion;
 - d. notification of all 3 hour and 24 hour averaged periods exceeding the permit limitation for carbon monoxide and the reason for the excursion;
 - e. notification of all periods the continuous monitors were not functioning and the reasons for the same;
 - f. if no permit limitations were exceeded, the report must so state.
26. Fugitive emissions, including but not limited to any of the following, shall be controlled at all times such that a public nuisance is not created at any point beyond the plant property line:
- a. dust from unpaved roads or any other non-vegetation-covered area;

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- b. fugitive sawdust from fuel-handling devices and/or storage areas;
 - c. char and/or bottom ash which is processed by the char handling system or is removed from the boiler by other means. Such ash shall be stored in closed containers and disposed of in such a manner so as to not create a public nuisance. Ash shall be transported in a wet condition in covered containers at all times. It shall be the responsibility of the plant owner/operator to insure that any and all contract or company carriers adhere to this condition;
 - d. accumulation of sawdust or ash on outside surfaces, including but not limited to the main building, boilers, electrostatic precipitator, support pads, road areas. Surfaces shall be cleaned on a regular basis to prevent the build-up of ash and/or fugitive dust.
27. References to rules, regulations, etc., within this permit shall be interpreted as referring to such rules and regulations in their present configuration and language as of the date of issuance of this permit.
28. Under no circumstances shall the permittee be allowed to emit quantities of pollutants in excess of the limits specified in Condition #23. If continuous monitoring pursuant to Condition #22 or testing pursuant to Condition #33 shows an increase in emissions above these limits, the permittee will take immediate action to bring the emissions to within the specified limits. Immediate Action, for use in this permit shall be defined as within four (4) hours of the occurrence which leads to the emission exceedance.
29. Once the wood-fired boiler authorized for operation under this permit is fully operational, the existing natural gas-fired Babcock & Wilcox boiler shall only be utilized as a backup unit for steam supply. Under no circumstance shall both boilers be operated simultaneously.
30. Combustion of wet fuel, i.e., fuel with moisture content greater than or equal to 55 percent, shall not be considered as an affirmative defense to an excess emission condition. Use of such fuels is a foreseeable occurrence, and as such, compliance with all permit limits and District regulations shall be required at all times unless the APCO has determined that the cause of the wet fuel condition is due to an unavoidable or emergency situation.
31. The Air Pollution Control Officer reserves the right to amend this permit if the need arises in order to insure compliance of this facility and abate any public nuisance.

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32. Acceptance of this permit is deemed acceptance of all conditions as specified. Failure to comply with any condition of this permit shall be grounds for revocation, either by the Air Pollution Control Officer or the Air Quality Management Hearing Board.
33. Emission tests for the following pollutants using the specified methods, will be required within 60 days of initial start-up of the boiler:
- a. total suspended particulate matter; CARB Method 1-5
(front+back half)
 - b. carbon monoxide; CARB Method 100
 - c. oxides of nitrogen; CARB Method 100
 - d. total hydrocarbon; CARB Method 100
 - e. oxides of sulfur; CARB Method 100
 - f. ammonia slip; BAAQMD Method ST-1B
34. The owner/operator shall provide all necessary emission offset requirements for NO_x, ROC, SO_x, and PM₁₀ as specified by District Rule 2:1 prior to operation of the boiler. Banked emission reduction credits as allowed by District Rule 2:2 shall be acceptable for use as emission offsets.