



BENTON CLEAN AIR AGENCY

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IN THE MATTER OF THE COMPLIANCE BY Tree Top, Inc. with Chapter 70A.15 RCW and the Rules and Regulations of the Benton Clean Air Agency	ORDER of APPROVAL No. 2023-0004
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TO: Tree Top, Inc. P.O. Box 248 Selah, WA 98942	Original Issue Date: 2 October 2006 Rev. 1 Issue Date: 28 October 2010 Rev. 2 Issue Date: 19 Sept 2011 2023-0004 Issue Date: 6 Nov 2023
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Permittee: The permittee is Tree Top, Inc.. The permittee is required to comply with the provisions contained within this Order.

Responsible Official: Vasiliy Kravtsov, Environmental Specialist, Tree Top, Inc.
Phone: Office: (509) 698-1613 Cell: (509) 607-3821
Email: vasiliy.kravtsov@treetop.com

Source Location: Tree Top, Inc.'s Prosser Plant is located at 2780 Lee Road, Prosser, in Benton County, Washington.

1. JURISDICTION AND LEGAL AUTHORITY: This order is issued under the authority of Revised Code of Washington (RCW) 70A.15.2040(3) and in accordance with RCW 70A.15.2210, Washington Administrative Code (WAC) 173-400-110, WAC 173-460-040, and Benton Clean Air Agency (BCAA) Regulation 1.

2. PROJECT DESCRIPTION

- 2.1. Tree Top is adding two Hurst S5-G-800-200 800 HP boilers to their Prosser facility as part of a plant expansion. These boilers will hereby be referred to as boilers #6 and #7.
- 2.2. Boiler 5, a temporary boiler that was installed in 2011 (OA 0600500 Rev. 2) has been removed.
- 2.3. Boilers 1 – 4, all existing boilers no longer have the capability to run on any fuel other than natural gas. Mentions of fuel oils regulations/restrictions are being removed from the permit as part of this revision.
- 2.4. Emissions calculations based on the use of only natural gas as fuel demonstrate that a voluntary limit under WAC 173-040-091 Voluntary Limits on Emissions is no longer necessary. The facility will now be Class 2 according to Benton Clean Air Regulation 1
- 2.5. This Order includes all relevant conditions from and supersedes Orders RO-04-001, 0600500 and 060500 Revision2.

2.6. Equipment List:

Equipment	Manufacturer	MMBtu	NO _x ppm	Installation	Fuel
Boiler 1	Cleaver Brooks	25.1	30	1965	Natural Gas Only
Boiler 2	Cleaver Brooks	25.1	30	1965	Natural Gas Only
Boiler 3	Cleaver Brooks	25.1	30	1969	Natural Gas Only
Boiler 4	Cleaver Brooks	25.1	9	1988	Natural Gas Only
Boiler 6	Hurst	26.8	9	2022	Natural Gas Only
Boiler 7	Hurst	26.8	9	2022	Natural Gas Only

3. FINDINGS:

- 3.1. The two new Hurst Boilers are emissions units that are defined as a new source of air contaminants and is required to undergo New Source Review in accordance with WAC 173-400-110 or WAC 173-460-040.
- 3.2. Boilers 1 – 4 are not required to undergo New Source Review as part of this action.
- 3.3. Criteria Air Pollutant (CAP) Emissions: Criteria air pollutant emissions from the facility include Nitrogen Dioxide (NO₂), Sulfur Dioxide (SO₂), particulate matter (PM) and fine particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀).
- 3.4. Toxic air pollutant (TAP) emissions from the facility include minute amounts of benzene, toluene, and other products of combustion.

3.5. APPLICABLE LAWS AND REGULATIONS

- 3.5.1 Unless otherwise stated, the applicable dates for referenced Code of Federal Regulations (CFRs), RCWs, and WACs are those applicable at the time of issue of this Order.
- 3.5.2 The facility shall comply with RCW 70A.15, Washington (State) Clean Air Act and RCW 43.21C, (Washington) State Environmental Policy Act
- 3.5.3 The facility shall comply with WAC 173-400 General Regulations for Air Pollution Sources; WAC 173-460, Controls for New Sources of Toxic Air Pollutants; WAC 197-11; SEPA.
- 3.5.4 The facility shall comply with 40 CFR 60, Subpart Dc: Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating units.
- 3.5.5 The facility shall comply with BCAA Regulation 1.

3.6. AMBIENT AIR QUALITY

- 3.6.1 The facility is within an area that is unclassifiable with respect to the national ambient air quality standards for NO_x, CO, SO₂, and PM₁₀, PM_{2.5} and ozone.
- 3.6.2 Impacts to the Wallula PM₁₀ maintenance area have been modeled using an EPA-approved screening model. The facility meets the applicable requirements of WAC 173-400-113(2).
- 3.6.3 Estimated TAPs emitted from the facility have been modeled using an EPA-approved screening model. Determined to be below the Small Quantity Emission Rates (SQER) or the Acceptable Source Impact Level (ASIL) listed in WAC 173-460.

- 3.6.4 Impacts to ambient air quality have been modeled using an EPA-approved screening model. The facility will not cause or contribute to a violation of the National or State ambient air quality standard.
- 3.6.5 The proposed project, if constructed and operated as herein required, will not result in the exceedance of any ambient air quality standards.

3.7. BEST AVAILABLE CONTROL TECHNOLOGY (BACT) AND BEST AVAILABLE CONTROL TECHNOLOGY FOR TOXICS (T-BACT)

3.7.1 As required by WAC 173-400-113(2) and 173-460-040(4)(b), the proposed emission unit(s) shall use BACT and T-BACT to control emissions of criteria pollutants and toxic air pollutants, respectively. The following are BACT and T-BACT:

3.7.1.1 The table below summarizes the results of BACT for NO_x; this project is for Boilers 6 and 7:

Emission Unit	Fuel	NO _x	CO	Notes
Boiler 4	Natural Gas	9 ppm	50 ppm	Installed in 2006, [OA 00600500 Cond. 4.4.2]
Boilers 1, 2, 3	Natural Gas	30 ppm	50 ppm	Installed in 2006, [OA 00600500 Cond. 4.4.2]
Boilers 6,7	Natural Gas	9 ppm	50 ppm	Installed in 2022, [OA 2023-0004]

3.7.1.2 BACT for PM, CO, SO_x, and VOC is the use of natural gas only and operation according to manufacturer’s standards.

4. FINAL DETERMINATION: A final determination has been made, based upon review of the Notice of Construction (NOC) and Application for Approval, submitted 18 May 2023.

4.1. The proposed project, if constructed and operated as described in this order, will be in accordance with applicable rules and regulations set for the Chapter 173-400 WAC and 173-460 WAC, and the operation of this facility at the proposed location will not result in ambient air quality standards being exceeded.

4.2. The proposed project, if constructed and operated as described in this order, will provide all known, available, and reasonable methods of emission control.

4.3. It is Ordered that the proposed project as described in the NOC Application, this Order, and more specifically detailed in plans, specifications, and other information submitted to the BCAA, is approved for construction, installation, and operation, provided that the conditions outlined in this Order are met.

4.4. This Order shall become effective upon receipt by the permittee or by the effective date, unless appealed within thirty (30) days of receipt in accordance with Condition 6.8.

4.5. ESTIMATED EMISSIONS

4.5.1 At maximum production, this project may produce up to the following estimated emissions:

	PTE this Project (ton/year) ⁽¹⁾	Facility PTE (ton/year) ⁽²⁾
CRITERIA POLLUTANTS		
Particulate Matter (PM ₁₀)	1.7	5.1
Sulfur dioxide (SO ₂)	0.1	0.4
Nitrogen Oxides (NO _x)	2.5	15.8
Carbon Monoxide (CO)	19.3	55.5

	VOCs	1.3	3.6
TOXIC AIR POLLUTANTS (TAPs)		Lb/yr	Lb/yr
	Formaldehyde	34.5	99.3
	Benzene	0.96	2.8
⁽¹⁾ Emissions based on Boilers 6 and 7, the two new boilers, running on natural gas only; 8760 hours per year.			
⁽²⁾ Emissions based on Boilers 1-4, 6,7 running on natural gas only; 8760 hours per year.			

5. SPECIFIC APPROVAL CONDITIONS

5.1. EMISSION LIMITS

	Pollutant	Emission Limit (tpy)
5.1.1	Nitrogen Oxides	
	Boilers 1,2,3	30 ppm at 15% O ₂ when averaged over 3 hours, and 3.6 lb/hr as measured by 40 CFR 60 Method 7 or a BCAA-approved equivalent method. [OA 00600500 5.1.2] 4.0 tons per year, each
	Boiler 4, 6 and 7	9 ppm at 15% O ₂ when averaged over 3 hours, and 3.6 lb/hr as measured by 40 CFR 60 Method 7 or a BCAA-approved equivalent method. [OA 00600500 5.1.3] [OA 2023-0004] 1.3 tons per year, each
5.1.2	Carbon Monoxide	
	Boilers 1,2,3,4,6,7	50 ppm at 15% O ₂ when averaged over 3 hours, and 8.4 lb/hr as measured by 40 CFR 60 Method 10 or a BCAA-approved equivalent method. [OA 00600500 5.1.4] [OA 2023-0004] 55.5 tpy (facility wide, based on AP-42)
5.1.3	Sulfur Dioxide	0.40 tpy (facility-wide, based on AP-42)
5.1.4	Particulate Matter	5.1 tpy (facility-wide, based on AP-42)
5.1.5	Volatile Organic Compounds	0.40 tpy (facility-wide, based on AP-42)
5.1.6	Visible emissions	Visible emissions shall be at or below 5 percent (5%) opacity averaged over (6) minutes as measured in accordance with 40 CFR 60 Appendix A Method 9. [OA 00600500 5.1.1]

5.2. OPERATING REQUIREMENTS

- 5.2.1 The permittee is to follow all recommended operation and equipment maintenance provisions supplied by the manufacturer of the unit.
- 5.2.2 Boilers 1-4, 6 and 7 shall be fired by natural gas only.
- 5.2.3 Boilers 1-4, 6 and 7 shall be fired by natural gas, except during natural gas curtailments, or supply emergencies, or for periodic testing not to exceed 48 hours during any calendar year. The intent of this term is to exempt the facility from the Area Source Boiler MACT 40 CFR 63 Subpart JJJJJ. [0600500 Revision 2, 5.2.4]

5.3. COMPLIANCE DEMONSTRATION

5.3.1 Compliance shall be demonstrated:

Condition/Brief Descrip.		Compliance Demonstration
5.1.1	NO _x	Continued operation according to O/M developed for Condition 5.6
5.1.2	CO	Continued operation according to O/M developed for Condition 5.6
5.1.3	SO _x	Compliance with the fuel sulfur limit in Approval Condition 5.1.3 shall be met by source testing as required by 40 CFR 60.42c (h). Tree Top may choose to submit vendor records of sulfur content in lieu of source testing as allowed by Subpart Dc. [OA 0600500 Condition 5.2.2]
5.1.4	PM ₁₀	Recordkeeping (Condition 5.5.2)
5.1.5	VOC	Recordkeeping (Condition 5.5.2)
5.1.6	Visible Emission	Weekly Qualitative Assessments in Condition 5.5.3.
5.2.1	O&M	Operation according to O&M Manual, Condition 5.6, and related recordkeeping
5.2.2	Nat. Gas Only	Compliance with the annual limits shall be met by keeping records of the number of hours per year each boiler operates. [OA 0600500 Condition 5.4.2]
5.2.3	Nat. Gas Only	Compliance with the annual limits shall be met by keeping records of the number of hours per year each boiler operates. [OA 0600500 Condition 5.4.2]

5.4. TESTING

- 5.4.1 Emissions testing shall be required, at the discretion of the BCAA, at other times should the potential for exceeding the emission limits in Condition 5.1 or 5.2 be indicated.
- 5.4.2 When complaint investigation, visible emission observations, or other information obtained by BCAA indicates the need to measure emissions, BCAA may require the permittee to conduct source testing.
- 5.4.3 Within 180 days of beginning normal operation the four boilers 1 – 4 shall be performance tested for NO_x and CO in accordance with 40 CFR 60.8. [OA 0600500 Condition 5.3.1]

5.5. MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

- 5.5.1 Notification Requirements of 40 CFR 60 60.48c (a) shall be met for all emission units [NSPS Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating units]
- 5.5.2 Recordkeeping requirements:
- 5.5.2.1 The following annual records shall be kept on site in a readily retrievable manner for a period of five (5) years and be made available to authorized representatives of the BCAA, the Department of Ecology, or the EPA, upon request [OA 0600500 Condition 5.4.2]
- 5.5.2.1.1 Annual fuel consumption of natural gas
- 5.5.2.1.2 Fuel sulfur content records and calculations that demonstrate compliance with:
- 40 CFR 60 Subpart Dc 60.44c(g),

- 40 CFR 60 Subpart Dc 60.46c(d)(2)
- 40 CFR 60 Subpart Dc 60.48c (f).
- [NSPS Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating units]

- 5.5.2.1.3 Results of 30 day rolling average calculations [RO 04-001]
- 5.5.2.1.4 Operating hours for each boiler
- 5.5.2.1.5 Annual emissions calculations.
- 5.5.2.1.6 Excess emissions. excess emissions shall be reported to the BCAA as soon as possible but not more than 30 days after the occurrence.
- 5.5.2.2 A copy of any operator log, Operation and Maintenance (O&M) manual, or any other operating manual or equivalent procedure [OA 0600500 Condition 5.4.2.2]
- 5.5.2.3 Records of any complaints received from the public or any other entity, the permittee’s action to investigate the validity of the complaint and any corrective action taken in response to the complaint [OA 0600500 Condition 5.4.2.3];
- 5.5.2.4 Records pertaining to the amount and type of emissions, including any engineering calculations, assumptions, emission factors, and direct data [OA 0600500 Condition 5.4.2.4];
- 5.5.2.5 Records of emission unit operation, including records generated as part of O&M [OA 0600500 Condition 5.4.2.5]
- 5.5.2.6 Results of the weekly qualitative assessment of visible emissions as per Condition 5.5.3 [OA 0600500 Condition 5.4.5.1];
- 5.5.2.7 Any occurrence of excess emissions and the resulting action taken per condition 5.5.4 [OA 0600500 Condition 5.4.5.2]
- 5.5.2.8 Any startups, shutdowns, upset conditions [OA 0600500 Condition 5.4.5.3],
- 5.5.2.9 Any maintenance of modification performed on the emission units [OA 0600500 Condition 5.4.5.4].
- 5.5.3 Weekly Qualitative Assessment: A qualitative assessment of the visual emissions of each operating emission unit shall be conducted weekly by the permittee and recorded in the operational log (Condition 5.4.6). Personnel may be certified, previously certified, or non-certified but thoroughly knowledgeable of the “Visible Emissions Field Manual: Methods 9 and 22”. If, at any time, visible emission occurs that has the potential to exceed the applicable standard, the permittee shall take the following action(s): [OA 0600500 Condition 5.4.3];
- 5.5.3.1 Verify that the emission unit causing the visible emission and its associated control devices are operating according to manufacturer’s specifications or other site-specific acceptable operating conditions. If the unit or control devices are not operating properly, the permittee shall take corrective action immediately bring the unit into compliance.
- 5.5.3.2 If the corrective action does not bring the unit into compliance within four (4) hours, the permittee shall report a process upset under condition 5.5.4

“Excess Emissions”. The permittee shall continue to take corrective action to bring the unit into compliance.

5.5.3.3 If the corrective action taken does not bring the unit into compliance within twelve (12) hours, the permittee shall discontinue operation of the unit until such time that compliance can be achieved. The permittee shall verify compliance by conducting visible emissions testing per 40 CFR 60 Appendix A, Method 9. A test report shall be prepared and submitted to BCAA within five (5) working days of the test.

5.5.4 Excess Emissions [OA 0600500 Condition 5.4.4];

5.5.4.1 Excess emissions which represent a potential threat to human health or safety that the facility believes to be unavoidable shall be reported to BCAA within twelve (12) hours after the deviation is discovered.

5.5.4.2 Excess shall be reported to the BCAA according to WAC 173-400-107 and the report shall provide sufficient documentation as per WAC 173-400-107(4), 173-400-107(5), or 173-400-107(6), respectively.

5.5.5 Reporting Requirements: a report shall be prepared for each calendar quarter that includes [RO 001-0004 Condition 4.3.2]:

5.5.5.1 Monthly fuel usage records for natural gas.

5.5.5.2 Monthly maximum, minimum, and average sulfur content of natural gas as provided by the fuel distributor.

5.5.5.3 Monthly facility wide rolling (12) month sum of SO₂ emissions.

5.5.5.4 Monthly calculated emissions of SO₂, including the emission factors and supporting documentation used in calculating the emissions.

5.5.5.5 Reports shall be submitted to the BCAA within 15 (15) days of the end of the calendar quarter.

5.5.5.6 A responsible official, as defined in WAC 173-401-200(29), shall certify reports. The certification shall state, “Based on the information and belief formed after reasonable inquiry, the statements and information in his document are true, accurate, and complete.”

5.6. OPERATIONS AND MAINTENANCE MANUAL

5.6.1 An operation and maintenance (O&M) manual for the equipment covered under this order shall be developed within sixty (60) days of initial start-up for each emission unit. Manufacturer’s instructions may be referenced. The O&M manual shall contain at a minimum:

5.6.1.1 Process and instrumentation to be used to perform required inspections.

5.6.1.2 Normal operating parameters for the emission units.

5.6.1.3 A maintenance schedule for the emission units.

5.6.1.4 Monitoring and recordkeeping requirements of the units.

5.6.1.5 A description of the emission monitoring procedures for the units.

5.6.1.6 Actions for abnormal control system operation.

5.6.1.7 Emission units shall be properly operated and maintained in accordance with the O&M manual.

- 5.6.2 O & M manual shall be updated to reflect any modifications to the emission units or operating procedures. O&M records shall be maintained for a period of five (5) years and shall be submitted to the BCAA upon request.
- 5.6.3 Regular maintenance records shall be kept at the facility. These operating and maintenance records shall be available for inspection by BCAA.

6. GENERAL APPROVAL CONDITIONS

- 6.1. This permittee will be registered with the BCAA as an air pollution source and must comply with the source registration program according to BCAA Regulation 1.
- 6.2. Access to the facility by BCAA staff shall be allowed upon request for conducting compliance inspections. Denial of entry to BCAA staff by the permittee is grounds for revocation of this Order.
- 6.3. Records of all data shall be kept on-site in a readily retrievable manner for a period of five (5) years and be made available to authorized representatives of the BCAA, the Department of Ecology, or the EPA, within 48 hours of request.
- 6.4. This Order shall be non-transferable and shall only apply to the facility and equipment specified.
- 6.5. This Order shall become invalid if construction is not commenced within eighteen (18) months after receipt of final approval or if construction is discontinued for a period of eighteen (18) months or more. The BCAA may extend this period upon a satisfactory demonstration that an extension is justified.
- 6.6. If the owner or operator at this site changes, notification shall be given to the BCAA in writing within thirty (30) days of the change.
- 6.7. Air quality violations, including failure to meet the conditions of this permit, shall be subject to any of the remedies provided in RCW 70A.15. Such remedies include notice of violation, order, and civil penalty of up to \$10,000 per day per violation
- 6.8. Orders, permits, determinations, and notices may be appealed within 30 days of receipt or as specified in RCW 43.21B, to the Washington State Pollution Control Hearings Board (PCHB), PO Box 40903, Olympia, WA 98504-0903. Copies of correspondence to the PCHB shall also be sent to the Benton Clean Air Agency, 526 S. Steptoe St. Kennewick, WA 99336.

PREPARED BY:

APPROVED BY:

Tyler Thompson
Air Quality Engineer

Date

Rob Rodger
Director

Date

Robin Bresley Priddy, P.E.
Air Quality Engineer

Date