STATE OF VERMONT
AGENCY OF NATURAL RESOURCES

IN THE MATTER OF: Simpson Paper Company
Centennial Mill
Gilman, Vermont

APPLICABLE REGULATION: Environmental Protection Regulations, Chapter 5, Air Pollution Control, Subchapter II, Section 5-251(2)

ADMINISTRATIVE ORDER

Having found that Simpson Paper Company is subject to Section 5-251(2) of the *Air Pollution Control Regulations (Regulations)*, the Secretary (Secretary) of the Agency of Natural Resources (Agency), pursuant to the authority set forth in 10 V.S.A. Section 554(4), hereby issues the following Administrative Order:

STATEMENT OF FACTS

1. On August 13, 1993, Section 5-251 of the *Regulations* was amended to include subsection (2) in order to provide for the application of reasonably available control technology (RACT) on large stationary sources of oxides of nitrogen (NO_x). A large source was defined as any stationary source having allowable emissions of 100 tons per year or more of NO_x. Section 5-251(2) required the submittal of a compliance plan by November 15, 1993, and the instailation and operation of RACT by May 31, 1995.

2. Based on the quantity, size, type, and usage of fuel burning equipment operated by Simpson Paper Company at its Centennial Mill, located in Gilman, Vermont, allowable emissions of NO_x were determined to exceed 100 tons per year. Consequently, Simpson Paper Company is subject to the requirements of Section 5-251(2) of the *Regulations*.

3. Simpson Paper Company submitted its compliance plan and schedule to the Agency on September 16, 1993. Based on its review of the compliance plan, the Agency notified Simpson Paper Company on November 19, 1993 that it had satisfied the requirement for submittal of a compliance plan and schedule.

4. The Agency has determined RACT for the Centennial Mill to be the following:

Zurn Wood-Fired Boiler: NO_x emissions limited to 0.3 pounds per million British Thermal Unit (lbs/MMBTU) and 54 pounds per hour (lbs/hr), 24-hour rolling average. The NO_x RACT emission limit is based on the optimization of the overfire and underfire combustion air biasing and the use of a continuous emission monitoring system to minimize emissions of NO_x.

5. The four Babcock & Wilcox residual oil-fired boilers are not subject to additional RACT requirements due to their annual capacity factor of 1% or less.

ORDER

Upon the receipt of this Administrative Order, Simpson Paper Company shall comply with the following conditions:

(1) Simpson Paper Company shall properly operate and maintain its fuel burning equipment in order to minimize the generation of air contaminants. Proper operation of the Zurn wood-fired boiler shall include the following:

(a) The use of good operating practices when handling, mixing, and regulating the wood fuel fed into the furnace section of the wood-fired boiler. Simpson Paper Company shall utilize only wood fuel uncontaminated by glues, preservatives, oils, or similar foreign substances. Furthermore, the moisture content of the wood fuel shall not exceed sixty (60) percent by weight, nor shall the size of the wood being fired in the furnace exceed two (2) inches by five (5) inches.

(b) Optimization of the overfire and underfire air system to minimize the generation of the air contaminants carbon monoxide (CO) and NO_x. By November 15, 1995, Simpson Paper Company shall evaluate its compliance with this paragraph, and shall summarize its findings in a report to the Agency. The purpose of the report shall be to determine the proper operating parameter(s) for the Zurn wood-fired boiler and ensure continuous compliance with this condition. At a minimum, the report shall contain ranges of operation for the following parameters: steam production, overfire/underfire bias (% as shown on the combustion controls), exhaust concentrations of oxygen (O_2), carbon monoxide (CO), and nitrogen oxides (NO_x), maximum heat input to the boiler, and wood fuel firing rate.

(2) Emission Limitations Applicable On and After May 31, 1995.

(a) Emissions of nitrogen oxides (NO_x) in the exhaust of the Zurn wood-fired boiler shall not exceed 0.3 lbs/MMBTU and a mass discharge rate of 54 lbs/hr. These limits shall be based on a rolling twenty-four hour (24-hour) average. Continuous compliance with these limits shall be determined by the continuous emission monitoring system required in condition (3) of this Order.

(b) Emissions of carbon monoxide (CO) in the exhaust of the Zurn wood-fired boiler shall not exceed 3.0 lbs/MMBTU and a mass discharge rate of 540 lbs/hr. These limits shall be based on a rolling 24-hour average. Continuous compliance with these limits shall be determined by the continuous emission monitoring system required by condition (3) below.

(c) The emission limits in (2)(a) and (2)(b) shall apply at all times except during periods of start-up and shutdown. Emissions during periods of start-up and shutdown shall comply with condition (4) of this Order.

(3) Continuous Emissions Monitoring

(a) Simpson Paper Company shall equip the Zurn wood-fired boiler with continuous emissions monitoring equipment which will measure and record the following emissions and parameters:

Emissions of visible air contaminants as opacity, and concentrations of CO, NO_x, and carbon dioxide (CO_2) or oxygen (O_2) in the flue gas exiting the Zurn wood-fired boiler.

(b) All such equipment shall be considered as part of the continuous emission monitoring system (hereinafter "CEMS") and shall be operated and maintained as specified below:

(i) All CEMS shall be installed, calibrated, maintained, and operated in such a manner as to meet the requirements of Volume 40 *Code of Federal Regulations* (*CFR*), Part 60 Appendix B, Performance Specifications 1, 2, 3, and 4; 40 *CFR* Part 60 Appendix F - Quality Assurance Procedures; and the Air Pollution Control Division Technical Services Section's (hereinafter "TSS") "Continuous Emission Monitoring Requirements," as amended.

(ii) All CEMS, monitoring devices, and recording equipment shall be installed according to the manufacturer's specifications and operational on or before January 15, 1995. The CEMS shall successfully complete the initial Performance Specification Test. Procedures consistent with condition (3)(b)(i) of this Order by May 1, 1995.

(iii) The CEMS must record valid data during all source operating times except for periods of established quality assurance and quality control procedures, preventative maintenance, or unavoidable malfunction. Nevertheless, the CEMS must record valid data for at least 90% of the source operating time within any quarter of the calendar year.

(iv) Simpson Paper Company shall develop, implement, and maintain for the CEMS a Quality Assurance Plan (hereinafter "QA Plan") which satisfactorily documents operations pursuant to state and federal requirements. The QA Plan must be acceptable to, and be approved by, the Secretary of the Agency (hereinafter "Secretary") no later than March 1, 1995. The QA Plan shall specify acceptable instrumentation, monitoring procedures, calibration procedures, quality control/quality assurance procedures (including auditing procedures), data reduction/reporting, and data acquisition systems as required to demonstrate compliance with this Order. The QA Plan shall also include all emission testing procedures required to determine CEM relative accuracy. Simpson Paper Company shall review the QA Plan and all data generated by its implementation at least once each year. Simpson Paper Company shall revise and update the plan, as necessary, based on the results of this review, or at the request of the Secretary or at any other appropriate time, to accurately document operations. Simpson Paper Company shall notify the TSS in writing of the results of each QA Plan review. All QA Plan modifications are subject to TSS approval and shall not be implemented until approved in writing by the TSS.

Simpson Paper Company shall submit to the Agency a QA Plan outline that includes all necessary standard operating procedures listed in general terms. The QA Plan outline must be approved by the Secretary by January 15, 1995. Additionally, general terms identified in the QA Plan outline shall be implemented on-site by this date.

(v) Simpson Paper Company shall submit a summary report for each calendar quarter, within thirty (30) days after the close of the quarter, which meets the applicable TSS CEM requirements. The report shall include at a minimum:

(aa) all NO_x and CO emissions in excess of the emission standards specified in condition (2) of this Order, and opacity in excess of Section 5-211 of the *Vermont Air Pollution Control Regulations*,

(bb) a frequency distribution summarizing all collected CEMS data.

(cc) a summary of data capture for all CEMS parameters for the reporting period (based on source operating hours during the quarter),

(dd) the quarterly maximum and average 1-hour and 24-hour average emissions of NO_x and CO in units of lbs/MMBTU, and lbs/hr,

(ee) a summary of source operating time during the reporting period,

(ff) all continuous emission monitor downtimes and malfunctions.

(vi) Opacity data shall be recorded as percent opacity in one minute averages. Only opacity data in excess of Section 5-211 of the *Vermont Air Pollution Control Regulations* shall be reported as follows:

(aa) for any period or periods of one minute averages greater than twenty (20) percent (%) opacity aggregating to six (6) minutes or more in any hour, the total aggregated time (in minutes) and the associated average opacity of the aggregated one minute observations above twenty (20) % (for that hour) shall be reported; and

(bb) all one minute averages greater than sixty (60) % opacity shall be reported.

(vii) CEMS data for NO_x and CO shall be reported in units of lbs/MMBtu, and lbs/hr, as 24-hour rolling averages calculated on a hourly basis. Reported, valid 24-hour rolling averages must contain valid CEMS data representing eighteen (18) hours out of the preceding 24-hour period.

(viii) Simpson Paper Company shall maintain a file of all information reported in the quarterly summaries and all other data collected by the monitoring systems for at least five years from the date of collection of such data or submission of such summaries. All data records for the monitoring systems shall be marked to show the times of both start-up and shutdown of the Zurn wood-fired boiler.

(4) Start-Up and Shutdown Procedures

For the purposes of this Order, the following definitions shall apply:

"start-up" periods are those periods of time from the initiation of wood firing until the unit reaches steady-state operation (85% to 100% load conditions). This period shall not exceed eight (8) hours for a cold start-up, nor four (4) hours for a hot start-up. A cold start-up shall be defined as start-up when the boiler has been down for more than 24-hours.

"shutdown" period shall not exceed four (4) hours from the moment the wood supply to the boiler is eliminated.

Simpson Paper Company shall operate the wood-fired boiler and associated combustion air control system in a manner consistent with best practicable air pollution control practices to minimize emissions during start-up and shutdown below the limits summarized below in Table 1: Start-up and Shutdown Limits:

Table 1: Start-up and Shutdown Limits

Parameter	Limit
NO_x	54 lbs/hr (1-hour average)
CO	1100 lbs/hr (1-hour average)

Emissions in excess of the limits identified in Table 1 during start-up and shutdown shall be considered a violation of this Order. The number of hours that the boiler operates in a start-up or shutdown mode shall not exceed fifteen (15) percent of the total operating hours of the Zurn wood-fired boiler.

(5) Simpson Paper Company shall not operate its four (4) oil-fired boilers in excess of five (5) percent of their total capacity on a rolling twelve (12) calendar month basis. Simpson Paper Company shall demonstrate compliance with this limitation on a quarterly basis as part of its summary report identified in Condition (3)(b)(v) of this Order, and shall submit their demonstration using the format contained in the attached Table 2.

(6) Malfunction Procedures

(a) Simpson Paper Company shall develop and utilize a malfunction abatement plan for those systems/operations that affect regulated emissions for its Zurn wood-fired boiler. This malfunction abatement plan must be approved by the Secretary. The malfunction abatement plan shall be implemented whenever the Zurn wood-fired boiler suffers a malfunction or other breakdown occurs. The purpose of the malfunction abatement plan shall be to prevent, detect, and correct malfunctions or equipment failures that could result in excess emissions from the wood-fired boiler. The malfunction abatement plan shall contain at a minimum the following:

(i) a complete preventive maintenance program including:

(aa) the identification of individuals or positions responsible for inspecting, maintaining and repairing the wood-fired boiler system and ancillary equipment,

(bb) a description of the components or conditions that will be inspected and maintained;

(cc) the frequency of inspection, maintenance services and repairs; and

(dd) an identification and quantities of replacement parts for the wood-fired boiler that shall be maintained in inventory at the Centennial Mill for quick replacement;

(ii) an identification of the operating variables that may be monitored in order to detect a malfunction or failure; the normal operating range of these variables; a description of the method of monitoring or surveillance procedures; and a description of the methods or procedures that will be used to inform operating personnel of any malfunctions, including alarm systems, lights or other indicators; and

(iii) a description of the corrective procedures that will be taken in the event of a malfunction or failure in order to achieve compliance with the applicable limits as expeditiously as practicable but no longer than the next boiler or process outage that would provide for an orderly repair or correction of the malfunction or fifteen (15) days, whichever is the shorter time interval. If it is anticipated that the malfunction would continue for more than fifteen (15) days, a case-by-case repair schedule will be established by the Secretary in conjunction with Simpson Paper Company.

(b) Simpson Paper Company shall submit a malfunction abatement plan to the Secretary by May 15, 1995. The malfunction abatement plan and any amendment to it shall be reviewed and approved by the Secretary prior to its use. If the plan does not adequately carry out the objectives of (6)(a) above, the Secretary shall disapprove the plan, and shall state his/her reasons for this disapproval. Simpson Paper Company shall submit to the Secretary for his/her approval amendments reflecting changes in any element of the plan required by the condition (6)(a) of this Order or amendments when requested by the Secretary. The malfunction abatement plan and amendments to it shall be implemented within sixty (60) days upon receipt of written notice of approval by the Secretary.

(c) If, for a period of four (4) hours or more, the wood-fired boiler discharges excess emissions that are caused by a malfunction or breakdown of the wood-fired boiler system or its ancillary equipment, or any other abnormal conditions, Simpson Paper Company shall:

(i) verbally notify the Agency of any such occurrence within 72-hours of becoming aware of the occurrence as described below:

(aa) name and location of the facility,
(bb) the nature and cause of the excess emissions,
(cc) the time when the excess emissions were first observed,
(dd) the expected duration, and
(ee) an estimated rate of emissions;

(ii) notify the Secretary immediately when the corrective measures have been accomplished;

(iii) submit to the Secretary within 15 days after the notification required in condition (6)(c)(i) a written report which includes:

(aa) name and location of the facility,
(bb) identification or description of the components, processes and control devices involved in the excess emissions,
(cc) the cause and nature of the event,
(dd) date, time and duration of the violation or the expected duration of the excess emission if the cause of the excess emissions has not been fixed,
(ee) estimated quantity of pollutant emitted,
(ff) steps taken to control the excess emissions and to prevent reoccurrences and, if the cause of the excess emissions has not been fixed, steps planned to be taken, and
(gg) any other pertinent information requested by the Secretary.

(7) Reporting and Record Keeping

(a) Unless otherwise specified above, all records, reports, and notifications that are required to be submitted to the Agency by this Order shall be submitted to:

Field Services Section
Air Pollution Control Division
D.E.C., Agency of Natural Resources
Bldg. 3 South, 103 South Main Street
Waterbury, Vermont 05671-0402

(b) All records shall be retained for a minimum period of five (5) years from the date of record and shall be made available to the Agency upon request.

EFFECTIVE DATE OF THIS ADMINISTRATIVE ORDER

This Administrative Order shall become effective on the date it is received by Simpson Paper Company.

COMPLIANCE WITH THIS ADMINISTRATIVE ORDER

If Simpson Paper Company fails or refuses to comply with the conditions of this Administrative Order, the Secretary shall have cause to initiate an enforcement action against Simpson Paper Company pursuant to the provisions of 10 V.S.A. Chapters 201 and 211.

Dated this 4th day of January, 1995, in the town of Waterbury, county of Washington, state of Vermont.

STATE OF VERMONT

Barbara Ripley

Barbara Ripley, Secretary
Agency of Natural Resources

Table 2: Summary of Oil-Fired Boiler Operations for Preceding 12-Calendar Month Period
(One form must be completed for each calendar month within the quarter.)

Month From Present (1=Last Month)	Unit #1 Fuel Use, Gallons	Unit #2 Fuel Use, Gallons	Unit #3 Fuel Use, Gallons	Unit #4 Fuel Use, Gallons	Month:	
					Year:	
					Total Fuel Use, Gallons	% Capacity Factor Note: ($\leq$ 5%)[1]
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
Sum For Last 12-Months						

Notes:

1. Calculation Formula for % Capacity Factor:

   % Capacity Factor = [Total Fuel Use (gallons) ÷ 9,800,000 gallons] x 100

   The value of %capacity factor may not exceed 5% in a rolling twelve (12) calendar month period.