



## AIR QUALITY PERMIT

Issued to: Stone Container Corporation  
P. O. Box 4707  
Missoula, MT 59806-4707

Permit #2589-M  
Notification of  
Modification: 1-8-92  
Date of Final  
Modification: 1-23-92

### SECTION I: Permitted Facilities

An air quality permit is hereby granted to the above-named permittee, hereinafter referred to as recipient, pursuant to Section 75-2-204 and 211, MCA, as amended, and Subchapter 11, PERMIT, CONSTRUCTION AND OPERATION OF AIR CONTAMINANT SOURCES, ARM 16.8.1113 as amended, for the entire mill site located at the Frenchtown mill site for the following:

The entire facility at the Frenchtown site, including:

#### A. Three Recovery Boilers

1. #3 Recovery Boiler has a capacity of 385 million Btu per hour input, and is controlled with an electrostatic precipitator. It has continuous emission monitors for TRS required by state permit.
2. #4 Recovery Boiler has a capacity of 825 million Btu per hour input, and is controlled with an electrostatic precipitator. It has continuous emission monitors for TRS required by state permit.
3. #5 Recover Boiler has a capacity of 330 million Btu per hour input, and is controlled with an electrostatic precipitator. This boiler is subject to NSPS and has continuous emission monitors for opacity and TRS.

#### B. Four Lime Kilns

1. #1 Lime Kiln has a capacity of 6.1 tons per hour of lime mud and is controlled with a wet venturi scrubber. The kiln has a continuous emission monitor for TRS.
2. #2 Lime Kiln has a capacity of 6.1 tons per hour of lime mud and is controlled with a wet venturi scrubber. The kiln has a continuous emission monitor for TRS.
3. #3 Lime kiln has a capacity of 15.6 tons per hour of lime mud and is controlled with a wet venturi scrubber. The kiln has a continuous emission monitor for TRS.
4. #4 Lime Kiln has a capacity of 12.7 tons per hour of lime mud and is controlled with a wet venturi scrubber. The kiln has a continuous emission monitor for TRS. This lime kiln is subject to NSPS Subpart BB.

C. Three Dissolving Tanks

1. #3 Smelt Dissolving Tank has a capacity of 29 tons per hour of black liquor solids. This dissolver is controlled with a wet scrubber.
2. #4 Smelt Dissolving Tank has a capacity of 62.5 tons per hour of black liquor solids. This dissolver is controlled with a wet scrubber.
3. #5 Smelt Dissolving Tank has a capacity of 25 tons per hour of black liquor solids. This dissolver is controlled with a wet scrubber, and is subject to NSPS Subpart BB.

D. Three Lime Slakers

1. The #1 Lime Slaker has a capacity of 7.7 tons per hour of lime. This slaker is controlled with a wet scrubber.
2. The #2 Lime Slaker has a capacity of 9.0 tons per hour of lime. This slaker is controlled with a wet scrubber.
3. The #3 Lime Slaker has a capacity of 7.9 tons per hour of lime. This slaker is controlled with a wet scrubber.

E. Two Wood-Fired Boilers

1. Waste Fuel Boiler - This boiler is primarily fueled with waste wood and bark. It has an input capacity of 537 million Btu per hour, and has the capability to fire natural gas or heavy fuel oil. The boiler is controlled with a wet venturi scrubber. The boiler is subject to NSPS Subpart D and has continuous emission monitors for both NO<sub>x</sub> and SO<sub>2</sub>.
2. Hog Fuel Boiler - This boiler is only fired with waste wood and bark, and has a capacity of 200 million Btu per hour input to the fire box. This boiler is controlled with a wet venturi scrubber.

F. Two Natural Gas-Fired Boilers

1. #2 Package Boiler - This boiler is fired only with natural gas, and has a capacity of 72 million Btu per hour. This boiler has no emission control on the stack.
2. Power Boiler - This boiler is fired only with natural gas, and has a capacity of 297 million Btu per hour. This boiler has no emission control on the stack.

G. Five Pulp Washers

1. The PC Washer has a capacity of 20.2 tons per hour of air dried pulp (ADP). This washer is controlled by a wet scrubber.
2. The M&D Washer has a capacity of 17.2 tons per hour of air dried pulp (ADP). This washer is a compaction baffle-type washer with no particulate emissions.
3. The No. 1 Base Washer has a capacity of 38.6 tons per hour of air dried pulp (ADP). This washer is controlled by a wet scrubber.
4. The No. 2 Base Washer has a capacity of 38.6 tons per hour of air dried pulp (ADP). This washer is controlled by a wet scrubber.
5. The Top Washer has a capacity of 25.5 tons per hour of air dried pulp (ADP). This washer is controlled by a wet scrubber.

H. Three Paper Machines

1. #1 Paper Machine has a capacity of 29.5 tons per hour of ADP. There is no control on the paper machine ventilation.
2. #2 Paper Machine has a capacity of 29.5 tons per hour of ADP. There is no control on the paper machine ventilation.
3. #3 Paper Machine has a capacity of 59.6 tons per hour of ADP. There is no control on the paper machine ventilation.

I. Three Unloading Stations

1. Salt Cake/Lime Unloading has a capacity of 20.0 tons per hour, and is controlled with a baghouse.
2. Starch Unloading has a capacity of 7.5 tons per hour, and is controlled with a baghouse.
3. Clay Unloading has a capacity of 13.0 tons per hour, and is controlled with a baghouse.

J. Sawdust, Chip, and Hog Fuel Unloading and Conveying

1. Sawdust is conveyed from storage to the digesters with covered conveyers and no other control.
2. Chips are conveyed from storage to the digesters with covered conveyers and no other control.
3. Hog fuel is conveyed from storage to the boilers with covered conveyers and no other control.

K. Sawdust and Chip Cyclones

1. M&D Cyclone delivers sawdust to the M&D Digester.
2. Pins Cyclone delivers chips to the Pins Digester.
3. Batch Cyclone delivers chips to the Batch Digesters.

SECTION II: Limitations and Conditions

The results of any single emission test or daily average from the continuous opacity monitors shall be evaluated against the specified hourly and daily maximum. Emission tests shall be conducted on the recovery boilers and the waste fuel boiler quarterly.

All other sources listed, with the exception of conveying systems, brown stock washers, and unloading systems shall be tested once per year. Results of such tests shall be evaluated against the specified hourly and daily maximum.

A. #3 Recovery Boiler

1. Total suspended particulate emissions from this boiler shall not exceed 979 lbs/calendar day, and 40.79 lbs/hr.
2. PM-10 emissions from this boiler shall not exceed 979 lbs/calendar day, and 40.79 lbs/hr.
3. Total sulfate emissions from this boiler shall not exceed 979 lbs/calendar day, and 40.79 lbs/hr.
4. Total reduced sulfur emissions from this boiler shall not exceed 5 ppm, 24-hour average.
5. Compliance with the above standards shall be determined by EPA source sampling methods specified in 40 CFR Part 60, Appendix A, including back-half particulate. PM-10 sampling methods are specified by 40 CFR Part 51, Appendix M, including back-half. TRS emissions are determined by continuous monitoring with 24-hour averages.
6. A continuous emission monitor for total reduced sulfur compounds is required for this source.
7. The monthly average total suspended particulate shall not exceed 451 lbs/day. Monthly average emissions shall be determined by continuous opacity monitoring. Stone shall maintain a correlation between opacity and particulate emissions and use this correlation to calculate daily and monthly averages.

B. #4 Recovery Boiler

1. Total suspended particulate emissions from this boiler shall not exceed 1253 lbs/calendar day, and 52.21 lbs/hr.

2. PM-10 emissions from this boiler shall not exceed 1253 lbs/calendar day, and 52.21 lbs/hr.
3. Total sulfate emissions from this boiler shall not exceed 1253 lbs/calendar day, and 52.21 lbs/hr.
4. Total reduced sulfur emissions from this boiler shall not exceed 5 ppm, 24-hour average.
5. Compliance with the above standards shall be determined by EPA source sampling methods specified in 40 CFR Part 60, Appendix A, including back-half particulate. PM-10 sampling methods are specified by 40 CFR Part 51, Appendix M, including back-half particulate. TRS emissions are determined by continuous monitoring with 24-hour averages.
6. A continuous emission monitor for total reduced sulfur compounds is required for this source.
7. The monthly average total suspended particulate shall not exceed 928 lbs/day. Monthly average emissions shall be determined by continuous opacity monitoring. Stone shall maintain a correlation between opacity and particulate emissions and use this correlation to calculate daily and monthly averages.

C. #5 Recovery Boiler (NSPS-BB)

1. Total suspended particulate emissions from this boiler shall not exceed 0.044 gr/dscf, and in no case shall exceed 633.6 lbs/day and 26.4 lbs/hr. This is consistent with 0.044 gr/dscf at a maximum flow rate of 70,000 dscf per minute as required by NSPS.
2. PM-10 emissions from this boiler shall not exceed 633.6 lbs/day, and 26.4 lbs/hr.
3. Total sulfate emissions from this boiler shall not exceed 633.6 lbs/day, and 26.4 lbs/hr.
4. Total reduced sulfur emissions from this boiler shall not exceed 5 ppm, 12-hour average.
5. Compliance with the above standards shall be determined by EPA source sampling methods specified in 40 CFR Part 60, Appendix A. PM-10 sampling methods are specified by 40 CFR Part 51, Appendix M. TRS emissions are determined by continuous monitoring methods specified in 40 CFR Part 60, Appendix B, Performance Specifications 1 through 6 as applicable. Back-half is not required since this is an NSPS source.

6. Continuous emission monitors for opacity, and total reduced sulfur compounds are required for this source.
7. The monthly average total suspended particulate shall not exceed 384 lbs/day. Monthly average emissions shall be determined by continuous opacity monitoring. Stone shall maintain a correlation between opacity and particulate emissions and use this correlation to calculate daily and monthly averages.

D. #3 Smelt Dissolving Tank

1. Total suspended particulate emissions from this source shall not exceed 140 lbs/day and 5.83 lbs/hr.
2. PM-10 emissions from this source shall not exceed 140 lbs/day and 5.83 lbs/hr.
3. Compliance with the above standards shall be determined by EPA source sampling methods specified in 40 CFR Part 60, Appendix A. PM-10 sampling methods are specified by 40 CFR Part 51, Appendix M.

E. #4 Smelt Dissolving Tank

1. Total suspended particulate emissions from this source shall not exceed 607 lbs/day and 25.29 lbs/hr.
2. PM-10 emissions from this source shall not exceed 607 lbs/day and 25.29 lbs/hr.
3. Compliance with the above standards shall be determined by EPA source sampling methods specified in 40 CFR Part 60, Appendix A. PM-10 sampling methods are specified by 40 CFR Part 51, Appendix M.

F. #5 Smelt Dissolving Tank (NSPS)

1. Total suspended particulate emissions from this source shall be limited to 0.2 lb/ton black liquor processed, but in no case shall it exceed 120 lbs/day and 5.0 lbs/hr. This is consistent with the 0.2 lb/ton NSPS limit since this dissolver has a capacity of 25 tons/hour of black liquor solids.
2. PM-10 emissions from this source shall not exceed 120 lbs/day and 5.00 lbs/hr.
3. Compliance with the above standards shall be determined by EPA source sampling methods specified in 40 CFR Part 60, Appendix A. PM-10 sampling methods are specified by 40 CFR Part 51, Appendix M.

G. #1 Lime Kiln

1. Total suspended particulate emissions from this source shall not exceed 288 lbs/day and 12.0 lbs/hr.
2. PM-10 emissions from this source shall not exceed 288 lbs/day, and 12.0 lbs/hr.
3. Total sulfate emissions from this source shall not exceed 259 lbs/day, and 10.79 lbs/hr.
4. Total reduced sulfur emissions shall not exceed 20 ppm, 24-hour average.
5. Compliance with the above standards shall be determined by EPA source sampling methods specified in 40 CFR Part 60, Appendix A, including back-half particulate. PM-10 sampling methods are specified by 40 CFR Part 51, Appendix M, including back-half particulate. TRS emissions are determined by continuous monitoring with 24-hour averages.
6. A continuous emission monitor for total reduced sulfur compounds is required for this source.

H. #2 Lime Kiln

1. Total suspended particulate emissions from this source shall not exceed 266 lbs/day and 11.08 lbs/hr.
2. PM-10 emissions from this source shall not exceed 266 lbs/day, and 11.08 lbs/hr.
3. Total sulfate emissions from this source shall not exceed 239 lbs/day, and 9.96 lbs/hr.
4. Total reduced sulfur emissions shall not exceed 20 ppm, 24-hour average.
5. Compliance with the above standards shall be determined by EPA source sampling methods specified in 40 CFR Part 60, Appendix A, including back-half particulate. PM-10 sampling methods are specified by 40 CFR Part 51, Appendix M, including back-half particulate. TRS emissions are determined by continuous monitoring with 24-hour averages.
6. A continuous emission monitor for total reduced sulfur compounds is required for this source.

I. #3 Lime Kiln

1. Total suspended particulate emissions from this source shall not exceed 359 lbs/day and 14.96 lbs/hr.
2. PM-10 emissions from this source shall not exceed 359 lbs/day, and 14.96 lbs/hr.

3. Total sulfate emissions from this source shall not exceed 323 lbs/day, and 13.46 lbs/hr.
4. Total reduced sulfur emissions shall not exceed 20 ppm, 24-hour average.
5. Compliance with the above standards shall be determined by EPA source sampling methods specified in 40 CFR Part 60, Appendix A, including back-half particulate. PM-10 sampling methods are specified by 40 CFR Part 51, Appendix M, including back-half particulate. TRS emissions are determined by continuous monitoring with 24-hour averages.
6. A continuous emission monitor for total reduced sulfur compounds is required for this source.

J. #4 Lime Kiln (NSPS)

1. Total suspended particulate emissions from this source shall be limited to 0.067 gr/dscf, but in no case shall it exceed 204.0 lbs/day and 8.50 lbs/hr. This limitation is consistent with a maximum flow rate of 14,800 dscfm. The analysis for the coke conversion shows no increase in particulate emissions from this source.
2. PM-10 emissions from this source shall not exceed 204.0 lbs/day, and 8.50 lbs/hr.
3. Total sulfate emissions from this source shall not exceed 204.0 lbs/day, and 8.50 lbs/hr.
4. Total reduced sulfur emissions shall not exceed 8.0 ppm, 12-hour average.
5. Compliance with the above standards shall be determined by EPA source sampling methods specified in 40 CFR Part 60, Appendix A. PM-10 sampling methods are specified by 40 CFR Part 51, Appendix M. TRS emissions are determined by continuous monitoring with 12-hour averages.
6. A continuous emission monitor for total reduced sulfur compounds is required for this source.

NOTE: The permit analysis for the coke conversion project permitted in January 1987 shows no increase in the allowable particulate from the #4 Lime Kiln. Therefore, the department feels that the NSPS limit of 0.067 gr/dscf is still applicable to this source.

K. #1 Lime Slaker

1. Total suspended particulate emissions from this source shall not exceed 110 lbs/day and 4.58 lbs/hr.

2. PM-10 emissions from this source shall not exceed 110 lbs/day and 4.58 lbs/hr.
  3. Compliance with the above standards shall be determined by EPA source sampling methods specified in 40 CFR Part 60, Appendix A, including back-half particulate. PM-10 sampling methods are specified by 40 CFR Part 51, Appendix M, including back-half particulate.
- L. #2 Lime Slaker
1. Total suspended particulate emissions from this source shall not exceed 146 lbs/day and 6.08 lbs/hr.
  2. PM-10 emissions from this source shall not exceed 146 lbs/day and 6.08 lbs/hr.
  3. Compliance with the above standards shall be determined by EPA source sampling methods specified in 40 CFR Part 60, Appendix A, including back-half particulate. PM-10 sampling methods are specified by 40 CFR Part 51, Appendix M, including back-half particulate.
- M. #3 Lime Slaker
1. Total suspended particulate emissions from this source shall not exceed 72 lbs/day and 3.00 lbs/hr.
  2. PM-10 emissions from this source shall not exceed 72 lbs/day and 3.00 lbs/hr.
  3. Compliance with the above standards shall be determined by EPA source sampling methods specified in 40 CFR Part 60, Appendix A, including back-half particulate. PM-10 sampling methods are specified by 40 CFR Part 51, Appendix M, including back-half particulate.
- N. Hog Fuel Boiler
1. Total suspended particulate emissions from this boiler shall not exceed 446 lbs/day, and 18.58 lbs/hr.
  2. PM-10 emissions from this boiler shall not exceed 446 lbs/day, and 18.58 lbs/hr.
  3. Compliance with the above standards shall be determined by EPA source sampling methods specified in 40 CFR Part 60, Appendix A, including back-half particulates. PM-10 sampling methods are specified by 40 CFR Part 51, Appendix M, including back-half particulates.
- O. Waste Fuel Boiler (NSPS Subpart D)

1. Total suspended particulate emissions from this boiler shall not exceed 0.1 lbs/million Btu fired, and 52.04 lbs/hr, and 1249 lbs/day.
  2. PM-10 emissions from this boiler shall not exceed 1249 lbs/day, and 52.04 lbs/hr, and 0.1 lbs/million Btu fired.
  3. Sulfur dioxide emissions from this source shall not exceed 0.8 lb/million Btu, and 429.6 lb/hr when firing liquid fossil fuel or liquid fossil fuel and wood residue.
  4. Nitrogen dioxide emissions from this boiler shall not exceed 0.30 lbs/million Btu, and 161.1 lbs/hr when firing liquid or gaseous fossil fuel and wood residue.
  5. Compliance with the above standards shall be determined by EPA source sampling methods specified in 40 CFR Part 60, Appendix A. PM-10 sampling methods are specified by 40 CFR Part 51, Appendix M.
  6. Continuous emission monitors for sulfur dioxide and nitrogen oxides is required for this source.
- P. Sawdust, Chips, and Hog Fuel Unloading, Storage, and Handling
1. Sawdust - This activity is limited to 1.0 lb/ton of sawdust handled (SCC #3-07-008-03).
  2. Chips - This activity is limited to 0.18 lb/ton of chips handled (State emission estimate).
  3. Hog Fuel - This activity is limited to 0.18 lb/ton of hog fuel handled (State emission estimate).
- Q. Brown Stock Washers
1. Brown Stock Washers shall be limited to a total of 128 lb/day, and 5.33 lb/hr.
  2. Compliance with the above standards shall be determined by EPA source sampling methods specified in 40 CFR Part 60, Appendix A. PM-10 sampling methods are specified by 40 CFR Part 51, Appendix M.
- R. Batch and Continuous Digesters
1. All gaseous emissions from these units shall be ducted to the lime kilns for oxidation of all reduced sulfur compounds.
  2. All gaseous emissions from the air stripper shall be ducted to the lime kilns for oxidation of all reduced sulfur compounds.

S. Scrubber Operational Checks

The following scrubber operational checks shall be performed on a weekly basis.

1. Lime Kilns
  - a. Scrubber water flow
  - b. Scrubber water solids
  - c. Scrubber pressure differential
2. Smelt Tank Vents
  - a. Scrubber shower water flows
  - b. Scrubber pressure differential
  - c. Bypass conditions
3. Waste Fuel Boiler
  - a. Scrubber shower water flows
  - b. Scrubber water solids
  - c. Scrubber pressure differential
  - d. Scrubber water pH check (pH 7-9)
4. Hog Fuel Boiler
  - a. Scrubber water flow and weir overflow
  - b. Scrubber shower water pressure
  - c. Scrubber pressure differential
  - d. Scrubber water pH check (pH 7-9)
5. Stone shall maintain a record of such checks which the department may inspect at any time.

T. Plant-Wide Sulfur Dioxide Limitation

Total sulfur dioxide emissions from the mill shall not exceed 5000 lbs/day. In the event of a natural gas curtailment, Stone shall report, in addition to the normal report, the following:

1. Daily SO<sub>2</sub> emissions from recovery boilers and power boilers.
2. Dates and times of curtailment.
3. Quantity and sulfur content of fuel oil burned.
4. All fuel oil burned must comply with ARM 16.8.1411 - Sulfur In fuel Oil rule, unless sulfur dioxide emissions are controlled on an equivalent basis.

U. NSPS Testing Requirements

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8. Permit Duration - This permit is null and void if the equipment is torn down, removed, or not capable of being operated for two years.
9. Permit Fees - Pursuant to Section 75-2-211, MCA, as amended by the 1991 Legislature, the continuing validity of this permit is conditional upon the payment by the permittee of an annual operation fee, as required by that Section and rules adopted thereunder by the Board of Health and Environmental Sciences.

SECTION III: Continuous Emission Monitoring Systems

A. No. 3 and No. 4 Recovery Boilers

A total reduced sulfur (TRS) CEM is required by state permit for each boiler. This CEM is not required to conform to federal specifications. Stone already has Barton titrators in place to fulfill this requirement. These monitors do not meet federal specifications because the response time is too slow; however, it is sufficient to monitor this pollutant at this time.

B. #5 Recovery Boiler (NSPS - BB)

1. An opacity continuous emission monitor (CEM) is required by state permit and federal regulations. This CEM shall conform to Performance Specification 1 found in 40 CFR Part 60, Appendix B.
2. A total reduced sulfur (TRS) CEM is required by state permit and federal regulation. This CEM shall conform to federal specifications as required by 40 CFR Part 60, Appendix B, Specification 5.

C. #1, #2, and #3 Lime Kilns

A total reduced sulfur (TRS) CEM is required by state permit for each kiln. This CEM is not required to conform to federal specifications. Stone already has Barton titrators in place to fulfill this requirement. These monitors do not meet federal specifications because the response time is too slow; however, it is sufficient to monitor this pollutant at this time.

D. #4 Lime Kiln (NSPS - BB)

A total reduced sulfur (TRS) CEM is required by state permit and federal regulations. This CEM shall conform to federal specifications as required by 40 CFR Part 60, Appendix B, Specification 5.

E. Waste Fuel Boiler (NSPS - D)

1. A sulfur dioxide CEM is required by federal regulation and state permit when this boiler is fired on oil. This CEM shall conform to federal specifications as required by Specification 2, 40 CFR Part 60, Appendix B.
2. A nitrogen oxides CEM is required by federal regulation and state permit. This CEM shall conform to federal specifications as required by Specification 2, 40 CFR Part 60, Appendix B.
3. Either an oxygen or carbon monoxide CEM is required as provided in 40 CFR Part 60.45.

SECTION IV: Ambient Air Monitoring Program

Stone shall conduct an ambient air monitoring program consisting of the following:

- A. At least two analyzers to measure H<sub>2</sub>S.
- B. At least two PM-10 samplers.
- C. At least one wind system.
- D. Sampling sites, data reporting, and parameters to be monitored will be specified by the department.

SECTION V: Reporting Requirements

A. Operational Reporting Requirements

Stone shall submit the following production and operation information annually to the AQB by March 1st of each year. This information is required for use in calculation of the annual emission inventory.

1. Annual production information calculated on a calendar year basis for the previous calendar year.

<u>SOURCE</u>	<u>UNITS OF MATERIAL PROCESSED</u>
a. Hog Fuel Boiler	Hog Fuel - tns/yr Nat Gas - MCF/yr
b. Waste Fuel Boiler	Hog Fuel - Tns/yr Nat Gas - MCF/yr Fuel Oil - Mgal/yr
c. No 2 Pkg Boiler	Nat Gas - MCF/yr
d. Power Boiler	Nat Gas - MCF/yr
e. No. 3 Recovery Blr	Black liquor - tns/yr Nat Gas - MCF/yr

<u>SOURCE</u>	<u>UNITS OF MATERIAL PROCESSED</u>
f. No. 4 Recovery Blr	Black liquor - tns/yr Nat Gas - MCF/yr Fuel Oil - Mgal/yr
g. No. 5 Recovery Blr	Black liquor - Tns/yr Nat Gas - MCF/yr Fuel Oil - Mgal/yr
h. No. 1 lime kiln	Nat Gas - MCF/yr Fuel Oil - Mgal/yr Lime mud - tns/yr
i. No. 2 lime kiln	Nat Gas - MCF/yr Fuel Oil - Mgal/yr Lime mud - tns/yr
j. No. 3 lime kiln	Nat Gas - MCF/yr Fuel Oil - Mgal/yr Lime mud - tns/yr
k. No. 4 lime kiln	Nat Gas - MCF/yr Fuel Oil - Mgal/yr Lime mud - tns/yr Petrol Coke - Tns/yr
l. No. 3 Dissolver	Black liquor - tns/yr
m. No. 4 Dissolver	Black liquor - Tns/yr
n. No. 5 Dissolver	Black liquor - tns/yr
o. No. 1 Slaker	Lime - tns/yr
p. No. 2 Slaker	Lime - tns/yr
q. No. 3 Slaker	Lime - tns/yr
r. Pulp produced	Pulp - ADT/yr
s. Linerboard produced	Linerboard - ADT/yr
2.	Hours of operation for the mill and each source if different from the mill operation time.
3.	Fugitive dust information:
a.	Tons of chips received for the year.
b.	Tons of sawdust received for the year.
c.	Tons of hog fuel received for the year.

8. Monthly Reporting Requirements.

1. Lime Kilns

- a. All lime kilns shall report daily average TRS concentrations with the number of hours exceeding 20 ppm. Lime kilns subject to NSPS Subpart BB shall report 12 hour averages with the number of hours exceeding 8 ppm.
- b. All lime kilns shall test for particulate emissions at least once per year and include the result with the monthly report in which the test was completed.

2. Recovery Boilers

- a. All recovery boilers shall report daily averages for TRS with the number of hours exceeding 5 ppm. Recovery boilers subject to NSPS Subpart BB shall report on a 12-hour basis with the number of hours exceeding 5 ppm.
- b. All recovery boilers shall report a monthly average pounds of sulfur emitted per 1000 pounds of black liquor burned.
- c. Recovery boilers subject to NSPS shall report opacity on a 24-hour average basis.
- d. Recovery boilers are required to test for total particulate once per quarter. These tests shall conform to 40 CFR 60, Appendix A, with back-half included unless NSPS is applicable.
- e. Recovery boilers subject to NSPS shall report all exceedances of the opacity standard of 35%, six-minute average.

3. Waste Fuel Boiler

- a. All boilers subject to NSPS Subpart D shall report three-hour averages for SO<sub>2</sub> and NO<sub>x</sub> as specified by federal regulations.

4. Pulp Mill Production

Average daily pulp production shall be reported in air dried tons per day, and average daily black liquor burning rates for each recovery boiler in pounds per day.

C. Quarterly Excess Emission Reports

Stone shall submit quarterly excess emission reports for all continuous emission monitors required by NSPS as specified in 40 CFR Part 60.7(c). This report shall include:

1. The magnitude of excess emissions computed in accordance with 60.13(h), any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.
2. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility; the nature and cause of any malfunction (if known); the corrective action taken or preventative measures adopted.
3. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
4. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired, or adjusted, such information shall be stated in the report.
5. The excess emission reports shall be completed in a format supplied by the department.

ATTACHMENT 8

Modified June 14, 1989  
Conditions of Permit #2589

This Attachment 8, Conditions of Permit #2589, hereby replaces the original Permit #2344 as issued May 22, 1987.

SECTION I: Permitted Facilities

A. A fuel change is requested for all four existing lime kilns. These kilns are currently fired on natural gas. The permit application requests permission to use an 80% petroleum coke, 20% natural gas fuel combination on a BTU basis. The kilns currently burn approximately 1,216 million cubic feet of natural gas per year. The fuel change will replace 80% of this with approximately 35,285 tons/year of petroleum coke supplied by Exxon Refinery.

B. The general associated facilities are:

1. Two coke storage bins with vents.
2. Coke unloading station with enclosed conveying systems to transport the coke to storage.
3. Pulverizer and burner system to feed the coke into the kilns.

SECTION II: Limitations and Conditions

A. The fuel change shall be limited to a maximum of 80% petroleum coke substitution for the natural gas currently used in each kiln.

B. Stone shall provide the department with a current analysis of the coke used in the kilns on a yearly basis. The report shall contain the heat content of the coke in BTU/lb, and the concentration of the following parameters: fixed carbon, volatiles, sulfur, ash, vanadium, beryllium, cadmium, mercury, nickel and lead. A change to any other type of fuel which increases any air pollution emissions is subject to the new source review requirements in accordance with ARM 16.8.1101 et seq. and/or ARM 16.8.921 et seq. This report is due by July 15 each year. No report is required for 1987.

C. The coke unloading, storage, and handling system shall use reasonably available control technology to control fugitive dust.

D. Nitrogen oxide emissions shall not exceed 408 tons/year from all four lime kilns. Compliance with this requirement shall be determined by conducting stack testing in accordance with the frequency specified in condition E. of this section. Compliance with this limitation shall be deemed achieved provided that the results of all stack sampling conducted within any calendar year do not exceed any of the values provided below:

Kiln #1:  $(X + 7.63/N^{\frac{1}{2}})(0.69)$   
Kiln #2:  $(X + 7.63/N^{\frac{1}{2}})(0.68)$   
Kiln #3:  $(X + 7.63/N^{\frac{1}{2}})(1.25)$   
Kiln #4:  $(X + 7.63/N^{\frac{1}{2}})$

Units are pounds per hour.

Where: N = number of stack tests or hourly readings obtained in the subject calendar year as presented below.

$X = (\text{Coke \%})(.26) + 4.9$   
Coke % is measured on a BTU basis.

The value of N shall be determined as follows:

1. For stack tests conducted in accordance with 40 CFR Part 60, Appendix A, Method 7, N shall equal 3 for each completed test (not the same as runs). A minimum of 2 tests is required.
2. For stack tests conducted using continuous emission sampling devices (such as that conducted in support of this application), N shall equal the number of valid hourly samples. The minimum number of samples required for each applicable kiln shall be 50.

- Average coke feed rate during the testing period shall not be less than five percentage points than the average coke feed rate in use by Stone over the preceding 3 months. Average coke feed rate shall be calculated on a percent BTU basis excluding all time periods in which coke was not a fuel to the lime kiln in question.

E. An annual stack test at Kiln #4 shall be required to verify compliance with condition D. of this section and to otherwise inventory the emissions from this source. Kilns #1, #2 and #3 only need be tested once following conversion to coke. The department, however, reserves the right to require further testing in accordance with the provisions of ARM 16.8.704 as it deems necessary to inventory air pollution emissions or to verify compliance with this permit or any other air quality rule. The requirements of this section, however, shall not be deemed a relaxation of testing requirements found in other permits issued to Stone. The test required by this section shall also include an analysis of sulfur dioxide and carbon monoxide and be performed according to the applicable EPA test methods as specified in 40 CFR Part 60, Appendix A. In the case of carbon monoxide, however, Stone may conduct this test using the ORSAT method. Alternative equivalent methods to 40 CFR Part 60, Appendix A, may be used only upon written approval by the department.

F. Each lime kiln shall be equipped with a stack which has safe access to the test ports and which meets the criteria of 40 CFR Part 60, Appendix A, Method 1.

G. For all stack tests, a pretest conference shall be held at least 20 days prior to the test between Stone, the tester and the department. The department may require a written testing protocol, including quality assurance procedures, prior to the pretest conference.

H. Stone shall discontinue the burning of coke within 12 hours of being notified by the Missoula City-County Health Department that a Stage II, III or IV Alert is in progress within the air stagnation zone. Stone may resume using coke as soon thereafter as the alert has been cancelled.

I. Stone shall discontinue the burning of coke as soon as reasonably possible, but not more than one hour, when a malfunction of the kiln or scrubber occurs provided that such a malfunction has the potential to increase emissions of sulfur dioxide into the outdoor atmosphere.

#### SECTION III: Ambient Air Monitoring and Reporting Requirements

A. Stone Container shall install, operate and maintain one ambient air monitoring site in the vicinity of its kraft pulp and liner-board facility. The monitoring site shall consist of all equipment, supplies and personnel resources necessary and sufficient to monitor nitrogen dioxide levels in the ambient air in accordance with the procedures provided below.

- B. Stone shall commence air monitoring within 90 days after the start of burning of petroleum coke in each of the four lime kilns.

C. For purposes of choosing an applicable site location, the department, in conjunction with Stone, the Missoula City-County Health Department, and interested citizens, shall form an ad hoc ambient air quality monitoring committee. The committee shall consist of the following members:

Stone Container	- 1 member
Missoula City-County Health Dept.	- 1 member
Department	- 1 member
Interested Citizens	- 2 members and 2 alternates

Each organization shall choose their respective committee member except that the department shall choose the citizen members from a list of names of anyone expressing interest in this subject. The department shall serve as chair for the committee.

D. The purpose of the monitoring committee in C. above is to choose the ambient air quality monitoring site for the continuous measurement of nitrogen dioxide. The chosen monitoring site must meet the minimum quality assurance requirements found in the Montana Quality Assurance Manual, including siting criteria. The site must also have adequate access and power requirements within a reasonable distance of the proposed monitoring station. In the event a consensus on site

selection can not be reached, the department shall determine the final site location. The monitoring site must remain in the same location for at least four consecutive quarters. It may be moved following four consecutive quarters in accordance with paragraph E.

E. The ambient air quality monitoring of nitrogen dioxide will continue for at least four consecutive quarters after the applicable lime kiln has been converted to coke and a maximum burn rate has been established. Following the successful gathering of four consecutive quarters of valid ambient air quality data collected in accordance with the requirements of H. below, the committee shall review the data and make a determination of whether or not to continue monitoring the effects of the coke conversion project or otherwise increase or decrease the network size. The committee's decision of whether or not to increase, decrease, or alter the network configuration in order to measure the impact of the coke conversion project will be based upon the nitrogen dioxide ambient monitoring results as they relate to potential damage to human health, vegetation, animals, or otherwise threaten compliance with the ambient air quality standards. In the event a consensus can not be reached by the committee, the department shall determine any future ambient air quality monitoring for nitrogen dioxide.

F. Any changes in the ambient monitoring network not related to site location and duration of monitoring must be approved in writing by the department. The department shall notify the committee of any approved changes to the monitoring network.

G. The committee may choose to develop a more comprehensive monitoring plan of the effects of the coke conversion project relating to vegetation and animal monitoring. None of the members of the committee, however, are bound to supply financial or other resources for completing these plans. As funding allows, it is the intent of the department that such a plan be a cooperative effort between the department, Stone, City-County Health Department, the University of Montana, and any other citizen or professional resources in the Missoula Valley.

H. Stone shall utilize air monitoring and quality assurance procedures which equal or exceed the requirements described in the Montana Quality Assurance Manual including revisions, the EPA quality assurance manual including revisions, 40 CFR Parts 53 and 58, and any other requirements specified by the department. These requirements extend to all aspects of air monitoring including, but not limited to, siting criteria, shelter design, equipment selection, calibration, maintenance, repair, zero/span procedures, precision, accuracy, data handling, control limits, and data validation.

I. Stone shall submit monthly data reports to the department within 45 days after the end of each month and an annual data report within 90 days after the end of the calendar year. Stone may, at their discretion, submit required data from the existing monitoring network at the same intervals and reporting requirements specified in this section.

- J. 1. The monthly report shall consist of a narrative data summary. The monthly report to the department must also consist of a data submittal of all data points on SAROAD format on floppy diskettes which are compatible with the department's computer system. The narrative data summary shall include:
- a. The first and second highest 24-hour concentrations for nitrogen dioxide;
  - b. The first and second highest 1-hour concentrations for nitrogen dioxide;
  - c. The monthly wind roses (from Stone's site #1);
  - d. A summary of the data collection efficiency;
  - e. A summary of the reasons for missing data;
  - f. A precision and accuracy summary;
  - g. Calibration information.
2. The annual report shall consist of a narrative data summary containing:
- a. A pollution trend analysis;
  - b. The annual means, first and second highest 24-hour concentrations, first and second highest 1-hour concentrations for nitrogen dioxide at each site;
  - c. The annual wind roses from each site;
  - d. An annual summary of data collection efficiency;
  - e. An annual summary of precision and accuracy data;
  - f. An annual summary of any ambient standard exceedances;
  - g. Recommendations for future monitoring.

ATTACHMENT C

Modified June 14, 1989  
Conditions of Permit #2589

Air quality permit #2589 (originally #792-013075) is hereby altered to include the old cardboard container (OCC) facility to be installed during the summer of 1989. This alteration is conducted in accordance with ARM 16.8.1105. Since there is no significant increase in emissions, only ARM 16.8.1100, Montana Permit Rule, will apply. This rule requires BACT to be applied to the air pollution control equipment.

SECTION I: Permitted Facilities

A. The general facilities associated with this project are:

1. Unloading docks for 400 TPD of old cardboard
2. Shredder and repulping tank
3. Cleaning facilities to remove burnable and nonburnable waste from the old cardboard
4. Disposal systems for all waste removed from the old cardboard

B. Emission Inventory for the Hog Fuel Boiler

Current average fuel consumption is:

Waste wood - 7955 Tons/mo x 12 = 95,460 Tons/yr  
Natural gas - 3648 MCF/mo x 12 = 43,776 MCF/yr

1. Current Emissions (from wood combustion):

	<u>Emissions</u>
Particulate from company stack test	18.0 TPY
SO <sub>2</sub> - .15 lb/T x .5 scrub eff x 95460 T wood/yr x 1/2000	3.5 TPY
NOx - 2.8 lb/T x 1 scrub eff x 95460 T wood/yr x 1/2000	133.6 TPY
CO - 4.0 lb/T x 1 scrub eff x 95460 T wood/yr x 1/2000	190.9 TPY
VOC <sub>(NM)</sub> - 1.4 lb/T x 1 scrub eff x 95460 T wood/yr x 1/2000	66.8 TPY

(from AP-42 1.6-1)

Natural gas emissions are negligible. The highest contribution from natural gas would be approximately 1 T/yr of NOx; all other pollutants are less than 1 T/yr.

2. Emissions from Waste Plastic Combustion:

Waste combustion rate: 15.1 T/day, 468 T/mo, 5616 T/yr  
AP-42 2.1-3 Uncont. E.F. for Commercial and Ind. Refuse

Particulate = 7 lb/T x .04 scrub eff x 5616 x 1/2000 = 0.8 TPY  
 (Multichamber)  
 SO<sub>2</sub>            2.5    x .5                    x 5616 x 1/2000 = 3.5 TPY  
 NO<sub>x</sub>            3        x 1                        x 5616 x 1/2000 = 8.4 TPY  
 VOC             3        x 1                        x 5616 x 1/2000 = 8.4 TPY  
 CO              10       x 1                        x 5616 x 1/2000 = 28.0 TPY

### 3. Toxics Review

These emissions are calculated from laboratory results of two samples of plastic waste which were collected from two paper recycling plants currently in operation. Analysis was done by Badger Laboratories for Stone Container (letter from Ms. Jenny Brown to W. Norton, dated 2-14-89)

#### Chloride analysis (as total halide)

Max. value - 0.43% x 15.1 T/day x 365 d/yr x .04 scrub eff x 2000 lb/T = 1896 lb/yr

(This assumes all chloride goes to scrubber; some may remain in bottom ash.)

#### Beryllium

Max. value - .05 ppm x 15.1 T/day x 2000 lb/T x 365 day/yr = 0.55 lb/yr

#### Cadmium

Max. value - <.05 ppm x 15.1 T/day x 2000 lb/T x 365 day/yr = <0.5 lb/yr

#### Lead

Max. value - 12.6 ppm x (11.02) = 138.9 lb/yr

#### Mercury

Max. value - <0.01 x 11.02 = <0.1 lb/yr

### 4. Emission Summary

Parameter	Existing	Plastic Emissions	Total Proposed
Particulate	18 TPY	1 TPY	19 TPY
SO <sub>2</sub>	4	3	7
NO <sub>x</sub>	134	8	142
CO	191	28	219
VOC <sub>(NM)</sub>	67	8	75

Parameter	Existing	Plastic Emissions	Total Proposed
Toxics:			
Cl	--	1896 lb/yr	1896 lb/yr
Be	--	0.5	0.5
Cd	--	<0.5	<0.5
Pb	--	138.9	138.9
Hg	--	<0.1	<0.1

#### C. Applicable Regulations

1. NSPS - Not applicable - OCC plants are not a listed component of Kraft pulp mills (see subpart 88, CFR 60.280a).
2. PSD - Not applicable - emissions are not significant. [See ARM 16.8.921(30).]
3. State Permit Rule - ARM 16.8.1113 is applicable and requires that BACT be applied to the permit alteration.
4. BACT Analysis

The applicant has proposed the disposal of 15.1 tons per day of waste plastic in the hog fuel boilers. These boilers are currently controlled with wet scrubbers. The waste fuel boiler is subject to the NSPS limits and the Air Quality Bureau has accepted this scrubber as BACT for this case. The scrubber water maintains a pH between 7.0 and 9.0 which should provide good collection efficiencies for chloride gases. Therefore, the department accepts this control as BACT for this case.

#### 5. Other Toxic Emissions

Lead - Less than 0.6 TPY - exempt from permitting. Company analysis shows 138.9 lbs/yr emission or 0.07 TPY. This is less than 12% of the lead emissions which require permitting under ARM 16.8.1102.

Beryllium - Less than 0.0004 TPY is not significant for PSD purposes. Company analysis shows 0.55 lbs/yr or 0.0003 TPY.

Mercury - Less than 0.1 TPY is not significant for PSD purposes. Company analysis shows 0.11 lb/yr or 0.00 TPY.

Therefore, a permit alteration will be required at this time for disposal of this plastic waste in the hog fuel boilers. However, a stack test for chloride emissions will be required after the system is operational to prove that actual emissions do not exceed the worst case analysis referred to above.

#### SECTION II: Limitations and Conditions

A. All emission limitations for the hog fuel and waste fuel boilers shall remain as stated in Attachment A.

B. The boiler used for disposal of the burnable waste shall be tested for particulate and for chloride emissions to prove compliance with existing regulations. The chloride emissions shall be compared with the estimated emissions from the permit application. These tests shall conform to EPA stack testing methods 1-5, and the Montana Stack Testing Protocol.

C. A one-time check on the levels of heavy metals emitted from the combustion of waste plastic is required. This shall consist of an analysis of the stack gas for lead, cadmium, beryllium and mercury. These tests shall be done by methods which are acceptable to EPA and the department, and be performed at the same time that the particulate and chloride tests are done. These tests shall be completed within one year of the startup date for the used fiber recycle plant.

#### SECTION III: Ambient Air Monitoring and Reporting Requirements

No additional ambient monitoring requirements apply at this time.

## Permit Analysis

### Stone Container Corporation - Missoula Permit Modification - Frenchtown Facility

A. Stone Container Corporation currently operates a pulp mill and liner board facility at the Frenchtown site located approximately 10 miles northwest of Missoula. The plant underwent a major expansion during the mid-1970s which added several NSPS units. The basic plant capacity was designed for about 1850 tons per day of air dried pulp. An air quality permit covered individual units at that time. Two changes to the permit were made since that time. In 1987, the permit was revised to allow Stone to burn petroleum coke in all four lime kilns. In 1989, the permit was revised again to allow Stone to install and operate a recycled cardboard facility at the plant. This revision increased the capacity of the plant by approximately 400 air dried tons per day.

On July 1, 1987 the Environmental Protection Agency (EPA) promulgated new ambient air quality standards for particulate matter with an aerodynamic diameter of 10 microns or less (PM-10). The annual standard is 50 micrograms per cubic meter and the 24-hour standard is 150 micrograms per cubic meter. These standards were adopted by the Montana Board of Health and Environmental Sciences on April 15, 1988. Due to violations of these standards, Missoula has been designated as a PM-10 nonattainment area. As a result of this designation the Montana Department of Health and Environmental Sciences and the Missoula County Air Pollution Control Agency are required to develop a plan to control these emissions and bring the area into compliance with the federal and state ambient air quality standards.

In order to identify the emission sources which were contributing to the violation of the PM-10 standard, Missoula County conducted a chemical mass balance study (CMB) of the area. The Stone Container mill recovery boilers were identified as significant contributors this area. Therefore, this permit modification is adding general fugitive dust control measures to this facility, and is correcting emission limitations for the No. 5 recovery boiler and the No. 4 lime kiln to agree with NSPS limits. These corrections decreased the allowable emissions enough to satisfy the SIP control plan for the area.

#### B. Process Description

This facility produces linerboard and other paper products by converting wood chips into pulp and then into paper. Stone uses a typical kraft recovery plant in which the cooking salts are recovered from the digestion process and reused. Stone uses several batch digesters and two continuous digesters to separate the wood fiber from the wood matrix. Digestion gases are controlled with a condenser and all noncondensable gases are incinerated in the lime kilns. The black liquor recovered from this process is used as a fuel in the recovery furnaces and the cooking salts are recovered to be used again. The recaust portion of the plant uses several lime kilns to convert calcium carbonate to calcium oxide, which is then used in converting green liquor from the recovery furnaces into the white cooking liquor. This is then reused to start the digestion process over again.

The plant has three recovery boilers, four lime kilns, and three paper machines with all of the peripheral equipment required by the kraft process.

C. Applicable Regulations

1. ARM 16.8.821 Ambient Standard for PM-10. Stone Container must demonstrate compliance with the applicable ambient air quality standards. The SIP demonstration of attainment indicates that the emission limitations contained in this permit, along with control measures applied to other sources, will bring the Missoula area into compliance with the PM-10 standards.
2. ARM 16.8.1113(a) Modification of Permit. The department is allowed to modify Stone Container Corporation's permit due to a change in an applicable standard (PM-10) adopted by the Board of Health and Environmental Sciences. Stone Container may appeal the department's modification to the Board.
3. ARM 16.8.1115 Inspection of Permit. Stone Container must maintain a copy of their air quality permit at the mill site and make that copy available for inspection by department personnel upon request.
4. ARM 16.8.1117 Compliance with Other Statutes and Rules. Stone Container must comply with all other applicable state, federal, and local laws and regulations.
5. ARM 16.8.1401 Particulate Matter, Airborne. This section requires reasonable precautions for fugitive emissions sources and Reasonably Available Control Technology (RACT) for existing fugitive sources located in a nonattainment area. The department, in consultation with EPA, has determined that the use of chemical stabilization or paving on major haul roads will satisfy these requirements.
6. ARM 16.8.1402 Particulate Matter, Fuel Burning Equipment. More stringent limits contained in this permit supersede this rule.
7. ARM 16.8.1403 Particulate Matter, Industrial Process. The requirements of this rule are superseded by the stricter emission limits established in the permit.
8. ARM 16.8.1404 Visible Air Contaminants. The requirements of this permit either supersede this rule because they are more stringent or they are equivalent.
9. Stone Container - Missoula RACT Analysis
  - a. Since the recovery boilers were identified as a contributor to the PM-10 area in Missoula, reasonably available control technology (RACT), applies to these units. The RACT analysis for No. 3 and No. 4 recovery

boilers determined that these units meet RACT. The analysis for the No. 5 recovery boiler using the NSPS limits also was determined to be RACT. The reduction in emissions from the NSPS correction on No. 5 was enough to account for Stone's contribution to the Missoula PM-10 area.

- b. Since the rest of the plant was not identified as a contributor to the PM-10 nonattainment area, RACT was not applicable to other units.

D. Existing Air Quality

1. The Missoula area is currently a nonattainment area for PM-10 standards. The department has determined, based on its preliminary demonstration of attainment, that the emission limitations contained in this permit, along with control measures applied to other sources, will bring Missoula into compliance with the PM-10 standards.
2. Stone Container Allowable Emissions (Existing)

<u>Source</u>	<u>Allowable Emissions (Existing)</u>	
1) Hog Fuel Boiler	81.4 TPY	Based on
2) #2 Package Boiler	136.5	AQB Permit
3) Power Boiler	444.9	#2589, and
4) #3 Recovery Blr	178.7	Process
5) #4 Recovery Blr	228.7	Rate Rule
6) #1 Lime Kiln	52.6	
7) #2 Lime Kiln	48.5	
8) #3 Lime Kiln	65.5	
9) #3 Smelt Dissolver	25.6	
10) #4 Smelt Dissolver	110.8	
11) #1 Lime Slaker	20.1	
12) #2 Lime Slaker	26.6	
13) PC Washer		
14) M & D Washer	23.4	
15) Base Washer		
16) Top Washer		
17) #1 Paper Machine	121.0	
18) #2 Paper Machine	121.0	
19) Salt cake & Lime Unload	129.9	
20) Starch Unload	147.2	
21) Sawdust conveying		
22) Chip conveying	32.3	
23) Hog Fuel conveying		
24) Waste Fuel Boiler	227.9	
25) #5 Recovery Boiler	166.4	
26) #4 Lime Kiln	62.4	
27) #5 Smelt Dissolver	21.9	
28) #3 Lime Slaker	13.1	
29) #3 Paper Machine	178.4	
30) M & D Cyclone	11.0	

<u>Source</u>	<u>Allowable Emissions (Existing)</u>
31) Pins Cyclone	11.0
32) Batch Cyclone	11.0
Total Allowable Particulate	2697.8

3. Stone Container Emissions (Proposed)

<u>Source</u>	<u>Emissions (Proposed)</u>	
1) Hog Fuel Boiler	81.4 TPY	Based on AQB Permit #2589, and Process Rate Rule
2) #2 Package Boiler	136.5	
3) Power Boiler	444.9	
4) #3 Recovery Blr	178.7	
5) #4 Recovery Blr	228.7	
6) #1 Lime Kiln	52.6	
7) #2 Lime Kiln	48.5	
8) #3 Lime Kiln	65.5	
9) #3 Smelt Dissolver	25.6	
10) #4 Smelt Dissolver	110.8	
11) #1 Lime Slaker	20.1	
12) #2 Lime Slaker	26.6	
13) PC Washer	23.4	
14) M & D Washer		
15) Base Washer		
16) Top Washer		
17) #1 Paper Machine	121.0	
18) #2 Paper Machine	121.0	
19) Salt Cake & Lime Unload	129.9	
20) Starch Unload	147.2	
21) Sawdust conveying	32.3	
22) Chip conveying		
23) Hog Fuel conveying		
24) Waste Fuel Boiler	227.9	
25) #5 Recovery Boiler	115.6	
26) #4 Lime Kiln	37.2	
27) #5 Smelt Dissolver	21.9	
28) #3 Lime Slaker	13.1	
29) #3 Paper Machine	178.4	
30) M & D Cyclone	11.0	
31) Pins Cyclone	11.0	
32) Batch Cyclone	11.0	
Total Proposed Allowable Particulate	2621.8	

#### 4. Impact Analysis

No modeling has been required for this permit because it is a modification of previous permits with a reduction in allowable emissions. This permit modification is necessary to cap the emissions from all sources at the Stone Container facility. The reduction in emissions from all sources in the Missoula area will ensure compliance with the PM-10 regulations in the area.

DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES  
Air Quality Bureau  
Cogswell Building, Helena, Montana 59620  
(406) 444-3454

ENVIRONMENTAL ASSESSMENT (EA)

Project or Application: Stone Container Corporation

Description of Project: SIP Modification - PM-10

Benefits and Purpose of Proposal: This permit modification will add enforceable provisions to the Stone permit which will help attain PM-10 compliance in the Missoula area.

Description and analysis of reasonable alternatives whenever alternatives are reasonably available and prudent to consider: This permit modification is required by the changes in federal air quality laws. This permit modification has been discussed with company officials and is the best alternative to bring the Missoula area into compliance.

A listing and appropriate evaluation of mitigation, stipulations and other controls enforceable by the agency or another government agency: See permit limitations.

Recommendation: An EIS is not needed with this modification.

If an EIS is needed, and if appropriate, explain the reasons for preparing the EA: NA

If an EIS is not required, explain why the EA is an appropriate level of analysis: This is a modification of a permit for an existing facility, with a reduction in allowable emissions. Environmental impacts will decrease as a result, and it will help the area come into compliance with federal and state air quality regulations.

Other groups or agencies contacted or which may have overlapping jurisdiction: None.

Individuals or groups contributing to this EA: AQB staff.

EA prepared by: Warren Norton

Date: January 7, 1992

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ATTACHED
1. TERRESTRIAL AND AQUATIC LIFE AND HABITATS			x			
2. WATER QUALITY, QUANTITY AND DISTRIBUTION			x			
3. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE			x			
4. VEGETATION COVER, QUANTITY AND QUALITY			x			
5. AESTHETICS			x			
6. AIR QUALITY			x			
7. UNIQUE ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCE			x			
8. DEMANDS ON ENVIRONMENTAL RESOURCE OF WATER, AIR AND ENERGY			x			
9. HISTORICAL AND ARCHAEOLOGICAL SITES			x			
10. CUMULATIVE AND SECONDARY IMPACTS			x			

POTENTIAL IMPACTS ON HUMAN ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ATTACHED
1. SOCIAL STRUCTURES AND MORES			x			
2. CULTURAL UNIQUENESS AND DIVERSITY			x			
3. LOCAL AND STATE TAX BASE AND TAX REVENUE			x			
4. AGRICULTURAL OR INDUSTRIAL PRODUCTION			x			
5. HUMAN HEALTH			x			
6. ACCESS TO AND QUALITY OF RECREATIONAL & WILDERNESS ACTIVITIES			x			
7. QUANTITY AND DISTRIBUTION OF EMPLOYMENT			x			
8. DISTRIBUTION OF POPULATION			x			
9. DEMANDS FOR GOVERNMENTAL SERVICES			x			
10. INDUSTRIAL AND COMMERCIAL ACTIVITY			x			
11. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS			x			
12. CUMULATIVE AND SECONDARY IMPACTS			x			