Andersen CORPORATION
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January 29, 2008

Mr. George Czerniak, Chief
Air Enforcement and Compliance Assurance Branch
Air and Radiation Division
EPA Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

Submittals Center
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

Re: **Andersen Corporation XL Permit Semi-Annual Report**
Facility ID: 16300001
XL Permit ANDXL-001

To Whom It May Concern:

Enclosed please find the XL Permit Semi-Annual Report as required by Andersen's XL Permit for the Bayport Facility. This report covers the second half of 2007 reporting period of July 1, 2007 through December 31, 2007.

Note that although Subpart DDDDD (Boiler NESHAP) was officially vacated by court action on July 30, 2007, we continue to report according to these requirements for completeness per our XL Permit until further guidance or rules are provided by the regulatory agencies.

Please contact me if you have any questions regarding this report.

Sincerely,

ANDERSEN CORPORATION

Denise Kazmierczak

Denise Kazmierczak, P.E.
Supervisor, Environmental Management

cc: Andersen Community Advisory Committee Members

XL Permit Semi-Annual Report
Andersen Corporation

Reporting Period:
July 1, 2007 – December 31, 2007

Report Date: January 29, 2007

Prepared by:
Andersen Corporation
100 Fourth Avenue North
Bayport, MN 55003
Washington County

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1.0 INTRODUCTION

The Andersen Corporation XL Permit was issued May 4, 2006. The XL Permit established a state-only PM/PM_{10} (particulate matter/particulate matter less than 10 microns) cap for non-milling emissions. In addition, the permit established a federal Plantwide Applicability Limit (PAL) for Volatile Organic Compound (VOC) emissions.

1.1 Summary of Compliance Status

As provided in this report, the monthly non-Milling PM/PM_{10} emissions as 12-month rolling sums meet the state-only non-milling PM/PM_{10} cap for the Facility. In addition, the total monthly VOC emissions as 12-month rolling sums meet the federal VOC PAL for the Facility.

1.2 Facility Information

Facility Name: Andersen Corporation **Permit #:** ANDXL-001

Facility ID: 16300001 **County Facility is Located in:** Washington

Facility Address: 100 Fourth Avenue North

Bayport, MN **Zip Code:** 55003

Mailing Address: 100 Fourth Avenue North

Bayport, MN **Zip Code:** 55003

Facility Contact Person (Print Name): Denise Kazmierczak

Facility Contact Person's Title: Environmental Management Supervisor

Contact Person's Phone #: 651-264-7237

Reporting Period Covered: 2nd Half 2007 (July 1 – December 31)

1.3 Report Purpose and Scope

In accordance with the XL Permit, Semi-Annual Reports are required by February 15 and August 15 for the reporting periods of July 1 – December 31 and January 1 – June 30, respectively. This Report covers the reporting period of July 1, 2007 – December 31, 2007. This Report is submitted to the Minnesota Pollution Control Agency (MPCA), the Environmental Protection Agency (EPA), and the Andersen Community Advisory Committee (CAC). It meets the requirements of the XL Permit Section 8 Table 4 Submittals, and Section 8.C. Semi-Annual Report (Air), in which the following items shall be included:

- Deviations Report as required by Minn. R. 7007.0800, subp. 6(A)(2).

- Total PM/PM_{10} non-milling emissions (in tons/year) on a 12-month rolling total for each month in the reporting period and all data relied upon in calculating the monthly and annual PM/PM_{10} non-milling emissions.
- Reports and information specifically identified in Attachment A of the permit. Items referenced as such include:
  - VOC PAL Deviations Reporting (if applicable).
  - National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Surface Coating Wood Building Products Semi-Annual Compliance Report and Deviations Report (if applicable).
  - Boiler NESHAP Semi-Annual Compliance Report, Deviations Report (if applicable), and Periodic Startup, Shutdown and Malfunction Report.
  - Routine Damper Maintenance Bypass for the Regenerative Thermal Oxidizer.

1.4 Permit Application and Amendment Status

Currently, three XL Permit amendment applications have been submitted to MPCA for processing:

- July 11, 2006 application to increase airflow for three milling equipment filter systems (FS21, FS2, and FS23) and to add one new filter system (FS41).
- December 6, 2006 application for a new temporary boiler and a new emergency generator.
- February 12, 2007 application to increase the airflow for one milling equipment filter system (FS11) and reduce the airflow to zero for one milling equipment filter system (FS14).

2.0 DEVIATIONS REPORT

2.1 XL Permit

Deviations Recorded by Continuous Monitoring Systems are reported on MCPA Form DRF-1 provided in Appendix 1. These certified reports for the 3rd and 4th quarters of 2007 were submitted to EPA and MCPA in October 2007 and January 2008, respectively.

Deviations identified by periodic monitoring systems or through recordkeeping are listed on MPCA Form DRF-2 provided in Appendix 1. During this reporting period, the only applicable deviations are those reported in the "Deviations Discovered through Recordkeeping" section of the form.

2.2 VOC PAL

Per the XL Permit, PAL Deviations Reporting can be submitted with the "Notifications of Deviations Endangering Human Health or the Environment" or in this Semi-Annual Report, whichever is applicable. No deviations occurred during this reporting period to submit in this Semi-Annual Report. More detailed information is set forth in the PAL Semi-Annual Report dated January 29, 2008 (2nd half 2007 reporting period) submitted to EPA, MPCA, and the CAC.

3.0 PM/PM_{10} NON-MILLING EMISSIONS CAP

The XL Permit established a PM/PM_{10} non-milling emissions cap not to exceed 84 tons per year (Phase I limit) based on a 12-month rolling sum. The Phase I limit was in effect until the end of the Shakedown Period for the new boilers, which ended on July 6, 2007 (the date of removal/ dismantle of the last of the existing six boilers). Beginning in July 2007, the Interim Limits are in effect for 11 months until the Phase II limit of 55 tons per year is reached in June 2008.

Non-milling PM/PM_{10} emissions include the following Permit process groups: 002 Painting Processes, 004 Vinyl and Other Plastic or Composite Processes, 005 Combustion Sources, and 008 Wood Silo.

A summary of the monthly emissions and the 12-month rolling sum emissions for each month in the reporting period is provided in Table 1. The monthly total non-milling PM/PM_{10} emissions as 12-month rolling sums are less than the established Interim Limits (shown on Table 1).

The data relied upon in calculating emissions is provided in Appendix 2 (12-Month Rolling Sum Emissions Reports) and Appendix 3 (Monthly Emissions Reports). These reports are generated from a database system developed by Andersen to track all material usage (e.g., purchased quantities, throughput amounts) and calculate associated emissions for each permitted process group for the timeframe specified (e.g., calendar month or 12 calendar months). The monthly reports summarize the emissions for each Permit process group based on the higher of the PM or PM_{10} emissions. Additional information on how the PM/PM_{10} emissions were calculated is available on-site for agency inspection.

4.0 LIST OF EMISSION UNITS MODIFIED, REMOVED OR ADDED

Table 2 provides a list of changes that were made to Non-Milling PM/PM10 and/or VOC emission units (EU) during this reporting period.

5.0 SURFACE COATING WOOD BUILDING PRODUCTS NESHAP (SUBPART QQQQ)

The Facility is subject to the Surface Coating Wood Building Products NESHAP per 40 CFR (Code of Federal Regulations) part 63, subpart QQQQ (referred to as subpart QQQQ). Per subpart QQQQ, the Permittee shall not cause to be discharged into the atmosphere from the Facility organic Hazardous Air Pollutant (HAP) emissions in an amount that is greater than or equal to 1.93 pounds of HAP per gallon of coating solids (1.93 lb HAP/gallon solids) determined as a 12-month rolling average. Andersen has chosen to comply with option (b) of 40 CFR 63.4691 (emission rate without add-on controls) for any coating operations.

5.1 Semi-Annual Compliance Report

The Semiannual Compliance Report for this reporting period is provided in Appendix 4. The report shows compliance with the applicable limit.

5.2 Deviations Report

Per the XL Permit, deviations defined under subpart QQQQ can be submitted with the "Notifications of Deviations Endangering Human Health or the Environment" or in this Semi-Annual Report, whichever is applicable. No deviations occurred during this reporting period to submit in this Semi-Annual Report.

6.0 BOILER NESHAP (SUBPART DDDDD)

Emission units (EU) 620 and 621, wood/gas boilers 11 and 12, (now referred to as boilers 1 and 2, respectively), are subject to the Boiler NESHAP per 40 CFR part 63, subpart DDDDD. Subpart DDDDD was officially vacated by court action on July 30, 2007. However, we continue to report according to these requirements per our XL Permit until further guidance or rules are provided by the regulatory agencies.

6.1 Semi-Annual Compliance Report

The Semi-Annual Compliance Report must contain information related to fuel use; new types of fuel; annual performance test results; startup, shutdown and malfunction actions; deviations related to operating limits, emission limits, or work practice standards; and periods where continuous monitoring systems (CMSs) were out-of-control.

Fuel Use and Fuel Types: Monthly total fuel use for the wood/gas boilers (wood sawdust and natural gas) is provided on the Monthly Emissions Reports for non-milling PM/PM10 provided in Appendix 3. No new types of fuel were burned.

Startup, shutdown or malfunctions actions consistent with Startup, Shutdown and Malfunction Plan (SSMP): Startup, shutdown, and malfunction events related to excess emissions were consistent with the SSMP, as listed on the Excess Emissions Reports provided in Appendix 5. One event on 8/6/07 related to wet wood was not consistent with the SSMP; see Section 6.3.

Annual Performance Tests: There were no annual performance tests completed during this reporting period.

The initial performance test for carbon monoxide, particulate matter (PM), and opacity was conducted on June 14-16, 2007 for the two boilers burning wood. Compliance was demonstrated for the boilers operating individually for the parameters and while operating simultaneously for carbon monoxide and opacity, but was not demonstrated while operating simultaneously for PM. Therefore, an additional performance test was conducted on September 14, 2007 for both boilers operating simultaneously. Compliance was demonstrated for carbon monoxide, PM, and opacity for the boilers operating simultaneously, but at 75% of capacity. An operating limit of 75% of capacity (30,000 lb/hr steam output per boiler) was established when both boilers are operating simultaneously on wood. Results are summarized in Table 3.

Hydrogen chloride was tested during the September 14, 2007 performance test for both boilers burning wood while operating simultaneously at greater than 90 % of capacity, and compliance was demonstrated. Results are summarized in Table 3.

Operating limits for the Electrostatic Precipitator (ESP) control equipment have not yet been established due to the inconclusive results of the June 14-16, 2007 initial performance test. Operating limits will be established upon completion of a successful performance test for both boilers operating simultaneously on wood at greater than 90% of capacity.

Deviations Related to Operating Limits, Emission Limits, or Work Practice Standards: Deviations are listed on MPCA Forms DRF-1 and DRF-2 in Appendix 1.

CMSs Out-Of-Control: There were no periods where the CMSs were out-of-control.

6.2 Deviations Report

Per the XL Permit, deviations defined under subpart DDDDD can be submitted with the "Notifications of Deviations Endangering Human Health or the Environment" or in this Semi-Annual Report, whichever is applicable. Deviations are listed on MPCA Forms DRF-1 and DRF-2 in Appendix 1.

6.3 Periodic Startup, Shutdown, and Malfunction Report

Startup, shutdown, and malfunction events related to excess emissions were consistent with the SSMP. Periodic SSM Reports are provided in Appendix 6 for SSM events. An Immediate Notification was made to MPCA Enforcement and the state duty officer related to an event on August 6, 2007 that was not consistent with the SSMP. As a result, the SSMP was revised and Notification of Revision of the SSMP is provided in Appendix 6.

7.0 ROUTINE DAMPER MAINTENANCE BYPASS

The XL Permit allows for Routine Damper Maintenance (RDM) Bypass for Control Equipment 008, the Regenerative Thermal Oxidizer (RTO), which controls the Door flatline painting processes. This allows the RTO to be by-passed while the painting processes are operating when performing routine damper maintenance (referred to herein as "RDM bypass"). The Permit restricts the RDM bypass time to ≤0.5% of operating uptime for each unit controlled by the RTO. Emissions during RDM bypass are considered uncontrolled.

Per the Permit, monthly calculations of the RDM bypass time for the first two calendar years after permit issuance (i.e., May 4, 2006 – December 31, 2007) are required to be reported in the Semi-Annual reports. Subsequent to this, annual calculations beginning the third calendar year (i.e., 2008) are required to be reported in the February 15 Semi-Annual Reports.

RDM bypass began in January 2007 for the South Paintline and February 2007 for the North Paintline. RDM bypass time is reported on Table 4, which shows that the bypass time was less than 0.5% of the operating uptime for each Paintline controlled by the RTO.

Table 1: Non-Milling PM/PM10 Emissions

Reporting Period: **2nd Half 2007** **(July 1 - December 31)**

Phase I Non-Milling PM/PM10 Cap:	**84 tons/yr**	*Effective thru June 2007*
Interim Non-Milling PM/PM10 Cap*:	**See table below**	*Effective for 11 months*
Phase II Non-Milling PM/PM10 Cap:	**55 tons/yr**	*Effective beginning June 2008*

	Total Monthly Emissions (tons)	12-Month Rolling Sum (tons/yr)	Interim Non-Milling PM/PM10 Cap* (tons/yr)
Prior Reporting Periods Emissions			
July 2006	1.4	29.6	
August 2006	1.3	28.3	
September 2006	2.0	27.5	
October 2006	1.3	25.9	
November 2006	2.4	25.8	
December 2006	2.8	25.4	
January 2007	2.5	25.7	
February 2007	1.6	24.3	
March 2007	0.5	22.1	
April 2007	0.6	20.6	
May 2007	1.3	19.6	
June 2007	1.2	18.9	
Current Reporting Period Emissions			
July 2007	1.1	18.6	81.6
August 2007	1.2	18.5	79.2
September 2007	0.8	17.3	76.8
October 2007	1.1	17.1	74.3
November 2007	0.7	15.4	71.9
December 2007	1.1	13.6	69.5

* The Interim Non-Milling PM/PM10 Cap is effective for the first 11 calendar months after the end of the shakedown period. The shakedown period is defined as the date that the last of boilers 1-6 is dismantled, which was July 6, 2007.

Note - Total Monthly Emissions and 12-Month Rolling Sums from the previous semi-annual reporting period may have been updated from those reported in the previous Semi-Annual Report to account for QA/QC of the data.

Table 2: Emission Units Modified, Removed or Added

Reporting Period: 2nd Half 2007 **(July 1 - December 31)**

Group Information

ID No.	Include in EI	Operator ID for Item	Group Description	Group Items
GP002			Other Preservative Processes	Add EU642
GP004			Horizontal Paintlines (PM)	Add EU 638
GP006			Vertical and Horizontal Paintlines (VOC)	Add EUs 638, 639
GP011			Vinyl Profile Extruders	Remove EUs 231, 232

Emission Unit (EU) Information

ID No.	Operator ID for Item	Stack/ Vent ID	Control Equip ID	Operator Description	Manufacturer	Model	Max Design Capacity/ Units	Maximum Fuel Input (MM Btu)	Commence Construc-tion Date	Initial Startup Date	Removal Date	Emission Unit Status
EU203		Change to SV204		Extruder TL02								Active
EU231				Extruder SL32							9/7/2007	Removed
EU232				Extruder SL34							10/24/2007	Removed
EU638		SV573	CE102	Interior Lineal Booth 1	Cattinair	Custom	14 gal/hr		9/19/2007	10/1/2007		Active
EU639		SV574		Interior Lineal Booth Oven 1	Cattinair	Custom			9/19/2007	10/1/2007		Active
EU642				R&D Waterbased Treater	Metal Professional	Custom	5.65 gal/hr		11/1/2007	11/12/2007		Active

Stack Vent (SV) Information

ID No.	Operator ID for Item	Operator Description	Height of Opening from Ground (Feet)	Inside Dimensions		Design Flow Rate at Top (ACFM)	Exit Gas Temp at Top (°F)	Flow Rate / Temp Info Source	Discharge Direction	Stack / Vent Status
				Diameter or Length (feet)	Width (feet)					
SV573		Interior Lineal Booth 1	45	1.33		2650	75	Estimate	Up, With Cap	Active
SV574		Interior Lineal Booth Oven 1	45	1.67		3500	140	Estimate	Up, With Cap	Active

Control Equipment (CE) Information

ID No.	Operator ID for Item	Control Equip Type	Control Equip Description	Manufacturer	Model	Pollutants Controlled	Capture Efficiency (%)	Destruction/ Collection Effic. (%)	Afterburner Combustion Parameters	Control Equipment Status
CE102	Int LB1	058	Mat or Panel Filter	Vefim	SC13GC	PM10, PM	80%	92%		Active

Table 3: Boiler NESHAP Subpart DDDDD Summary of Emission and Operational Limits

Reporting Period: **2nd Half 2007** **(July 1 - December 31)**

Parameter	Limitation[1]	Reference	EU 620 (Boiler 11) (Burning wood)	EU 621 (Boiler 12) (Burning wood)	EU 620 and 621 Combined Operation (Burning wood)	Fuel Analysis
Emission and Operational Limits						
Carbon Monoxide (CO)	400 ppm dry @ 7% O_2 (3 run average)	Initial Performance Test 6/14-16/07[2]	80.72 ppm	128.24 ppm	126.46 ppm	--
Particulate Matter (PM)	0.025 lb/MMBtu		0.003 lb/MMBtu	0.005 lb/MMBtu	0.103 lb/MMBtu	--
Opacity	10%		2%	1%	4%	--
Hydrogen Chloride (HCl)	0.02 lb/MMBtu	Fuel Analysis 6/27/07[3]	--	--	--	0.074 lb/MMBtu
Mercury (Hg)	0.000003 lb/MMBtu		--	--	--	0.00000276 lb/MMBtu
Carbon Monoxide (CO)	400 ppm dry @ 7% O_2 (3 run average)	Performance Test 9/14/07[4] operating at 75% capacity	--	--	144.3 ppm	--
Particulate Matter (PM)	0.025 lb/MMBtu		--	--	0.007 lb/MMBtu	--
Opacity	10%		--	--	1.45%	--
Hydrogen Chloride (HCl)	0.02 lb/MMBtu	Performance Test 9/14/07[4] operating at 90% capacity	--	--	<0.0004 lb/MMBtu	--

Notes:

[1] - Subpart DDDDD was vacated by court action on July 30, 2007.

[2] - Results for the Initial Performance Test were submitted to MPCA and EPA on July 31, 2007.

[3] - Results for the Fuel Analysis were submitted to MPCA and EPA on August 14, 2007.

[4] - Results for the 9/14/07 Performance Test were submitted to MPCA and EPA on October 25, 2007.

Table 4: RTO Routine Damper Maintanence Bypass Time

Reporting Period: 2nd Half 2007 (July 1 - December 31)

RTO RDM Bypass Time Limit: 0.5% of operational uptime for each unit controlled by the RTO

	South Paintline			North Paintline		
	Total Operating Time (hours)	RDM Bypass Time (hours)	RDM Bypass Time (% of operating uptime)	Total Operating Time (hours)	RDM Bypass Time (hours)	RDM Bypass Time (% of operating uptime)
Reporting Period Emissions						
July 2007	402.60	0.26	0.1%	323.28	--	--
August 2007	520.33	0.18	0.0%	438.95	0.10	0.0%
September 2007	384.10	0.24	0.1%	384.02	0.22	0.1%
October 2007	442.73	0.40	0.1%	440.40	0.04	0.0%
November 2007	427.85	0.16	0.0%	433.90	0.04	0.0%
December 2007	387.22	0.10	0.0%	264.17	0.00	0.0%