



Environmental Stewardship Division
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Date: August 10, 2005
Refer to: ENV-MAQ:05-229

Mr. Edward Horst
Environmental Compliance Specialist, Enforcement
New Mexico Environment Department
Air Quality Bureau
2048 Galisteo St.
Santa Fe, New Mexico 87505



**IDEA ID NO. 856 – LOS ALAMOS NATIONAL LABORATORY (LANL)
AIR QUALITY TITLE V OPERATING PERMIT P100
SEMI-ANNUAL MONITORING REPORT FOR JANUARY – JUNE, 2005**

Dear Mr. Horst:

Attached is a copy of Los Alamos National Laboratory's Title V Operating Permit semi-annual monitoring report for the period **January 1 – June 30, 2005**. This submission is required by permit condition 4.2 of NMED Operating Permit P100 dated April 30, 2004, and is transmitted within the allowed 45 days after the end of the reporting period as specified in permit condition 4.3.

If you have any questions or comments regarding this submittal or would like to discuss the submittal in greater detail, please contact Steve Story at 665-2169.

Sincerely,

A handwritten signature in black ink, appearing to read 'Douglas M. Stavert'.

Douglas M. Stavert
Deputy Division Leader (Acting)
Environmental Stewardship Division

SLS:alb

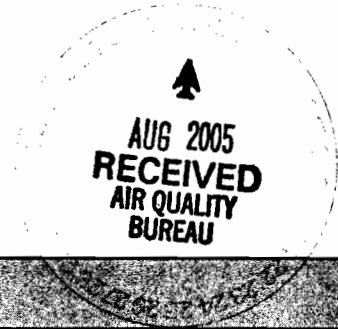
Enc: a/s

Cy: w/o opacity reports

S. Fong, DOE-LA-AO, A316
K. Hargis, ENV-DO, J591
D. Stavert, ENV-DO, J978

P. Wardwell, LC-ESH, A187
M. Clay, DX-TSO, C925
F. Sisneros, DX-TSO, C925
D. Macdonell, ESA-WOI, C928
A. Sherrard, ESA-MEE, C924
D. Shoemaker, FM-MSE, K787
T. Siverling, FM-MSE, K787
D. Padilla, FM-UI, K718
J. Gonzales, FM-UI, K718
R. Patterson, MST-6, G770
P. Reardon, MST-7, E549
T. Blum, NMT-DO, E509
P. Sasa, NMT-DO, G746
H. Decker, NMT-7, E501
S. Evans-Carmichael, NMT-7, E501
G. Linzey, P-24, E526
S. Barnes, S-5, G733
D. Fuehne, ENV-MAQ, J978
J. Hurtle, ENV-MAQ, J978
D. Wilburn, ENV-MAQ, J978
S. Story, ENV-MAQ, J978
M. Stockton, ENV-MAQ, J978
D. Plante, KSL, A199
ENV-MAQ Title V Monitoring Report File
ENV-MAQ Reading File

Los Alamos National Laboratory
Operating Permit P100
Semi-Annual Monitoring Report
January 1 – June 30, 2005



Identifying Information

Source Name: Los Alamos National Laboratory County: Los Alamos

Source Address:

City: Los Alamos State: NM Zip Code: 87545

Responsible Official: Douglas M. Stavert Ph No. (505) 665-0235 Fax No. (505) 665-8190

Technical Contact: Steven L. Story Ph No. (505) 665-2169 Fax No. (505) 665-8858

Principal Company Product or Business: National Security and Nuclear Weapons Research Primary SIC Code: 9711

Permit No. P100 {IDEA/Tempo ID No. 856} Permit Issued Date: April 30, 2004

Certification of Truth, Accuracy, and Completeness

I, Douglas M. Stavert certify that, based on information and belief formed after reasonable inquiry, the statements and information contained in the attached semi-annual compliance certification are true, accurate, and complete.

Signature  Date: Aug 10 2005

Title: Deputy Division Leader (Acting), Environmental Stewardship Division

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Sources (by permit section)

- 1. Asphalt Production**
- 2. Beryllium Activities**
- 3. Boilers and Heaters**
- 4. Carpenter Shops, TA-3-38 & TA-15-563**
- 5. Chemical Usage**
- 6. Degreasers**
- 7. Internal Combustion Sources**
- 8. Paper Shredder, TA-52-11**
- 9. Power Plant at Technical Area 3 (TA-3-22)**
- 10. Rock Crusher, TA-21-RC, Portable**

Deviations

Attachments

- A: Beryllium HEPA Filter Tests Results**
- B: Boilers and Heaters Natural Gas Usage**
- C: Boilers and Heaters Opacity Reports**
- D: Carpenter Shop Hours of Operation**
- E: Degreaser Solvent Usage**
- F: Internal Combustion Generator Hours of Operation**
- G: Paper Shredder Box Throughput**
- H: Power Plant Natural Gas and Fuel Oil Usage**
- I: Power Plant Opacity Reports**

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1. Asphalt Production

Permit Section	Monitoring Required	Monitoring Performed
2.1.4.1	Perform monthly six (6) minute opacity readings for each emission point having opacity greater than zero as determined by EPA Method 22.	Construction of the new BDM asphalt plant was completed in March 2005 but because of the spotted owl nesting season, the plant was not started. Start-up will occur in July 2005; no monitoring performed during this period.
2.1.4.2	Monitor the differential pressure (inches of water) across the baghouse by the use of a differential pressure gauge, in accordance with condition IV.C.2 of NSR permit number GCP-3-2195G.	
2.1.4.3	40 CFR Part 60, Appendix A, Method 9 shall be used to determine compliance with the opacity limitation.	

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2. Beryllium Activities

Permit Section 2.2.4		
Source	Monitoring Required	Monitoring Performed
Chemistry and Metallurgy Research Facility TA-3-29	A log shall be maintained during operations which indicate the number of Be samples processed.	A log is maintained indicating the number of Be samples processed. The log is available on-site for NMED inspection.
Sigma Facility TA-3-66	A log shall be maintained during operations which show the number of metallographic specimens used in the polishing operation and the weight of Be samples processed in the electroplating/chemical milling, machining, and arc melting/casting operations.	A log is maintained showing the number of metallographic specimens used in the polishing operation. Logs are maintained showing the weight of Be samples processed in the electroplating/chemical milling, machining, and arc melting/casting operations. Logs are available on-site for NMED inspection.
Beryllium Technology Facility (BTF) TA-3-141	Facility exhaust stack will be equipped with a continuous emission monitor used to measure beryllium emissions.	The BTF is equipped with a continuous emissions monitor to measure beryllium emissions. The monitoring system is operated in accordance with LANL Quality Assurance Project Plan ESH-17-BM and emission results are provided to NMED quarterly. Submissions for this period were provided to NMED on February 7, 2005 [ENV-MAQ:05-039] and May 19, 2005 [ENV-MAQ:05-147].
	Cartridge and HEPA filters will be equipped with differential pressure gauges that measure the differential pressure across the cartridge and HEPA filters while the exhaust fans are in operation.	Cartridge and HEPA filters are equipped with differential pressure gauges that measure the differential pressure across the cartridge and HEPA filters while the exhaust fans are in operation.

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TA-16-207	Project files shall be maintained of components prepared for testing.	Project files are maintained of components prepared for testing. Files are available on-site for NMED inspection.
TA-35-87	A log shall be maintained during operations which show the number of beryllium filters cut.	A log is maintained showing the number of beryllium filters cut. The log is available on-site for NMED inspection.
Target Fabrication Facility TA-35-213	Records of the stack emission test results (see Condition 2 of NSR Permit No. 632) and other data needed to determine total emissions shall be retained at the source and made available for inspection by the Department.	Records of stack emission test results are maintained on-site and available for NMED inspection. Stack emission test results are used to determine total emissions from this facility.
Plutonium Facility TA-55-PF-4 Permitted Source	The HEPA filtration systems shall be equipped with a differential pressure gauge that measures the differential pressure (inches of water) across the HEPA filters while the exhaust fans are in operation.	The HEPA filtration systems are equipped with differential pressure gauges that measure the differential pressure across the HEPA filters while the exhaust fans are in operation.
	Control efficiency shall be verified by daily HEPA filter pressure drop tests and annual HEPA filter challenge tests of accessible filters.	Control efficiency is verified by daily HEPA filter pressure drop readings. Readings are recorded in the TA-55 Operations Center. Annual HEPA filter challenge tests of accessible filters are performed. Test results are summarized in Attachment A.

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3. Boilers and Heaters

Permit Section	Monitoring Required	Monitoring Performed
2.3.4.1	Emission units TA-21-357-1, TA-21-357-2, and TA-21-357-3: A volumetric flow meter shall be utilized to measure the total amount of natural gas being used on a monthly basis.	<p>Volumetric flow meters are utilized to measure the total amount of natural gas being used on a monthly basis for emission units TA-21-357-1, TA-21-357-2 and TA-21-357-3.</p> <p>Natural gas usage is summarized in Attachment B.</p>
2.3.4.2	Emission units TA-55-6-BHW-1 and TA-55-6-BHW-2: A volumetric flow meter shall be utilized to measure the total amount of natural gas being used on a monthly basis.	<p>Volumetric flow meters are utilized to measure the total amount of natural gas being used on a monthly basis for emission units TA-55-6-BHW-1 and TA-55-6-BHW-2.</p> <p>Natural gas usage is summarized in Attachment B.</p>
2.3.4.3	40 CFR Part 60, Appendix A, Method 9 shall be used to determine compliance with the opacity limitation.	<p>LANL uses 40 CFR Part 60, Appendix A, Method 9 to determine compliance with the opacity limitation.</p> <p>Opacity readings are summarized and provided in Attachment C.</p>

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4. Carpenter Shops, TA-3-38 & TA-15-563

Permit Section	Monitoring Required	Monitoring Performed
2.4.4.1	The permittee shall maintain logs of the hours the carpenter shops are in operation.	<p>A log is maintained of the hours of operation at the TA-3-38 shop.</p> <p>The TA-15-563 carpenter shop is equipped with an hour meter on the cyclone separator. The hour meter is read and recorded monthly.</p> <p>Hours of operation are provided in Attachment D.</p>

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5. Chemical Usage

Permit Section	Monitoring Required	Monitoring Performed
2.5.4.1	Maintain records of chemical purchasing through facility-wide chemical tracking system, and use the data to calculate the emissions on a semi-annual basis in accordance with Condition 4.1.	Records are maintained in LANL's facility wide chemical tracking system. The data is used to calculate emissions and will be submitted in the Semi-Annual Emission report.

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6. Degreasers

Permit Section	Monitoring Required	Monitoring Performed
2.6.4.1	Record the amount of solvent added to the degreaser, and calculate the emissions on a semi-annual basis in accordance with Condition 4.1.	Records are maintained of the amount of solvent added to the degreaser and used to calculate emissions on a semi-annual basis. LANL's "Historical Solvent Usage Data" report for January 1 – June 30, 2005 is provided in Attachment E.
2.6.4.2	Complete checklist for work practice standards.	LANL completes a work practice checklist each time the degreaser is used. This checklist is posted on the degreaser glove box.

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7. Internal Combustion Sources

Permit Section	Monitoring Required	Monitoring Performed
2.7.4 [Stationary Standby Generators]	Track and record hours of operation for stationary standby generators on a semi-annual basis.	LANL tracks and records generator hours of operation every six months. Stationary generator hours of operation for 2005 are provided in Attachment F.
2.7.4 [TA-33-G-1]	Track hourly and 12-month rolling total kWh.	Installation of the TA-33-G-1 generator has not been completed. No monitoring performed this period
	Record hours of operation and the time operation begins and ends each day.	
2.7.4.1	40 CFR Part 60, Appendix A, Method 9 shall be used to determine compliance with the opacity limitation.	LANL uses 40 CFR Part 60, Appendix A, Method 9 to determine compliance with the opacity limitation. No opacity measurements were performed during this period.

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8. Paper Shredder, TA-52-11

Permit Section	Monitoring Required	Monitoring Performed
2.8.4.1	The permittee shall maintain a log of the number of boxes of media that are shredded and calculate the emissions on a semi-annual basis in accordance with Condition 4.1.	LANL maintains a log of the number of boxes of media that are shredded and calculates the emissions on a semi-annual basis. The actual number of boxes shredded is included in Attachment G.

Note: The Title V 'Paper Shredder' source was replaced by a 'Data Disintegrator' under permit 2195-H. Permit 2195-H does not contain monitoring requirements, but LANL is continuing to track number of boxes shredded for emission calculations.

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9. Power Plant at Technical Area 3 (TA-3-22)

Permit Section	Monitoring Required	Monitoring Performed
2.9.4.1	A volumetric flow meter shall be installed and utilized to measure the total amount of natural gas being used on a daily basis.	A volumetric flow meter is installed and utilized to measure the total amount of natural gas being used on a daily basis. Attachment H contains a summary of monthly natural gas usage. Daily totals are available on-site for NMED inspection.
2.9.4.2	Total fuel oil consumption shall be monitored on a monthly basis.	Total fuel oil consumption is monitored on a monthly basis. Attachment H contains a summary of monthly fuel oil consumption.
2.9.4.3	If total natural gas used exceeds 3,400 MMscf per 365 day rolling total, semi-annual compliance stack tests shall be conducted for NOx and CO from each unit in accordance with NSR permit 2195B. This testing shall continue until natural gas usage is calculated to be less than 3,400 MMscf per 365 day rolling total for a total of 730 consecutive days.	On July 30, 2004, NSR permit 2195BM1 was issued, which reduced the natural gas use limit from 4,000 MMscf to 2,000 MMscf per 365 day rolling total. Due to this reduced gas use limit, permit condition 2.9.4.3 no longer applies.
2.9.4.4	40 CFR Part 60, Appendix A, Method 9 shall be used to determine compliance with the opacity limitation.	LANL uses 40 CFR Part 60, Appendix A, Method 9 to determine compliance with the opacity limitation. Opacity measurements performed at the TA-03 Power Plant are provided in Attachment I.

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10. Rock Crusher, TA-21-RC, Portable

Permit Section	Monitoring Required	Monitoring Performed
2.10.4.1	A compliance test to measure fugitive particulate emissions shall be conducted within 60 days of initial startup, in accordance with the requirements in NSR permit 2195.	LANL submitted a letter to NMED on June 10, 2004 providing notification that LANL will not operate the rock crusher. Therefore, no monitoring was performed.
2.10.4.2	40 CFR Part 60, Appendix A, Method 9 shall be used to determine compliance with the opacity limitation.	

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Deviations

Permit Section 4.2 requires that all instances of deviations from permit conditions, including emergencies, be clearly identified. Listed below are permit deviations this period:

1. Excess Emission from Power Plant at Technical Area 3 on January 19, 2005. Excess Emission Form submitted to NMED January 25, 2005. Excess emission resulted from NMED pre-approved FGR test.

----- Last Entry -----

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**Attachment A
Beryllium HEPA Filter Tests Results**

Summary Table, Reports Attached

Unit	Date	Pass/Fail
TA-55 100 Area H5-1430	6/3/2005	Pass
TA-55 100 Area H5-1440	6/3/2005	Pass

100 AREA GLOVEBOX EXHAUST IN-PLACE HEPA FILTER TESTING

ATTACHMENT A
100 Area Glovebox Exhaust FF-852 Data Sheet

Date: 06/03/05 (8.4.1) LAS Calibration Expiration Date: 02/15/2006 (8.4.3) Diluter Calibration Expiration Date: 08/11/2005 (8.4.4) Dilution Ratio: 2035 (8.4.2)

Step Number	Item	FF-852 H-5-1430
9.1.12.2	Background concentration (part./cc)	0.0 part. concentration
9.1.12.3	Upstream concentration (part./cc)	<u>mmj 06/03/05</u> <u>2.24e</u> 2.452×10^6 part. concentration
9.1.12.4	Challenge aerosol concentration between 2.00×10^6 and 2.71×10^6 part./cc	<u>mmj</u> Initials
9.1.12.5	1 st stage downstream concentration (part./cc)	8.054×10^1 part. concentration
9.1.12.6	2 nd /3 rd stage downstream concentration (part./cc)	7.00×10^{-3} part. concentration
9.1.12.7	1 st stage Penetration $\leq 5.0 \times 10^{-4}$ (efficiency $\geq 99.95\%$)	3.284×10^{-5}
9.1.12.8	2 nd /3 rd stage Penetration $\leq 2.5 \times 10^{-7}$ (efficiency $\geq 99.999975\%$)	2.860×10^9
9.1.13.3 9.1.13.4	Ensure all test port ball valves are closed	<u>mmj</u> Initials <u>PT</u> Independent Verification

Valve	Required Position	Initials	Independent Verification
HV-852-H	Closed and Locked	<u>mmj</u>	PT
HV-852-G	Closed	<u>mmj</u>	PT
HV-852-F	Closed	<u>mmj</u>	PT
HV-852-D	Closed	<u>mmj</u>	PT
HV-852-C	Closed	<u>mmj</u>	PT
HV-852-B	Closed	<u>mmj</u>	PT
HV-852-A	Closed	<u>mmj</u>	PT
HV-852-AA	Closed	<u>mmj</u>	PT

Comments:

Surveillance Personnel

[Signature]
Signature

06/03/05
Date

OC On-duty Supervisor

[Signature] 6/3/05
Signature Date

100 AREA GLOVEBOX EXHAUST IN-PLACE HEPA FILTER TESTING

ATTACHMENT B
100 Area Glovebox Exhaust FF-853 Data Sheet

Date: 06/03/05 (8.4.1) LAS Calibration Expiration Date: 02/15/2004 (8.4.3) Diluter Calibration Expiration Date: 06/11/2005 (8.4.4) Dilution Ratio: 3025 (8.4.2)

Step Number	Item	FF-853 H-5-1440
9.2.12.2	Background concentration (part./cc)	0.0 part. concentration
9.2.12.3	Upstream concentration (part./cc)	2.158×10^6 part. concentration
9.2.12.4	Challenge aerosol concentration between 2.00×10^6 and 2.71×10^6 part./cc)	<u>MNT</u> Initials
9.2.12.5	1 st stage downstream concentration (part./cc)	7.713×10^1 part. concentration
9.2.12.6	2 nd /3 rd stage downstream concentration (part./cc)	0.0 4.944×10^{-2} part. concentration
9.2.12.7	1 st stage Penetration $\leq 5.0 \times 10^{-4}$ (efficiency $\geq 99.95\%$)	3.575×10^{-5}
9.2.12.8	2 nd /3 rd stage Penetration $\leq 2.5 \times 10^{-7}$ (efficiency $\geq 99.999975\%$)	2.291×10^{-8}
9.2.13.3 9.2.13.4	Ensure all test port ball valves are closed	<u>MNT</u> Initials <u>PT</u> Independent Verification

Valve	Required Position	Initials	Independent Verification
HV-853-H	Closed and Locked	<u>MNT</u>	<u>PT</u>
HV-853-G	Closed	<u>MNT</u>	<u>PT</u>
HV-853-F	Closed	<u>MNT</u>	<u>PT</u>
HV-853-D	Closed	<u>MNT</u>	<u>PT</u>
HV-853-C	Closed	<u>MNT</u>	<u>PT</u>
HV-853-B	Closed	<u>MNT</u>	<u>PT</u>
HV-853-A	Closed	<u>MNT</u>	<u>PT</u>
HV-852-AA	Closed	<u>MNT</u>	<u>PT</u>

Comments:

Surveillance Personnel: [Signature] Signature 06/03/05 Date
 OC On-duty Supervisor: [Signature] Signature 6/3/05 Date

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**Attachment B
Boilers and Heaters Natural Gas Usage**

2005 TA-21 Steam Plant Fuel Use

Monthly Fuel Use						
TA-21-357						
			Converted			
Month	Natural Gas (MCF)	Fuel Oil (gallons)	Natural Gas (MMscf)	Month	Natural Gas Use 12-Month Rolling Total (MMscf)	Fuel Oil Use 12-Month Rolling Total (Gallons)
January	3849	10	3.849	January	31.45	81
February	3605	10	3.605	February	31.28	87
March	3728	0	3.728	March	32.11	83
April	2627	96	2.627	April	32.10	171
May	2131	88	2.131	May	32.27	255
June	1556	40	1.556	June	32.21	295
July				July		
August				August		
September				September		
October				October		
November				November		
December				December		
Annual Totals:	17496	244	17.496			
Jan. - June	17496	244	17.496			
July - Dec.	0	0	0.000			

Permit Limit
60 MMScf/yr natural gas (12 month rolling total)
10,000 gal/yr fuel oil (12 month rolling total)

2005 Small Boilers Gas Usage

Month	Metered Boilers			Total Gas Use ^(a)		Non-Metered Gas Use	12-Month Rolling Total for all Small Boilers (MMSCF) ^(e)
	TA-55 Boiler Gas Use (MSCF) ^(c)		TA-50-2 ^(d) (MSCF)	(MSCF)	(MMSCF)	(MMSCF)	
	BHW-1B (B-602)	BHW-2B (B-603)	BS-1				
January	82	2798		75,388	75.39	72.51	539.37
February	1360	925		68,552	68.55	66.27	534.54
March	14	2969		65,683	65.68	62.70	545.28
April	17	2746		48,462	48.46	45.70	544.79
May	6	2178		30,265	30.27	28.08	547.61
June	5	1928		15,693	15.69	13.76	547.14
July							
August							
September							
October							
November							
December							
TOTAL	1484	13544	0	304043	304.04	289.02	Permit Limit 870

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**Attachment C
Boilers and Heaters Opacity Reports**

Summary Table, Reports Attached

Source	Date	Time	Opacity
TA-21-357 Boiler No. 2	6/23/2005	9:55	0.5 %
TA-21-357 Boiler No. 2	6/15/2005	8:50	3.125 %
TA-21-357 Boiler No. 2	6/15/2005	9:15	2.25 %
TA-21-357 Boiler No. 2	6/2/2005	10:40	2.875 %
TA-21-357 Boiler No. 2	5/29/2005	11:20	2.625 %
TA-21-357 Boiler No. 3	5/11/2005	9:10	0.25 %
TA-21-357 Boiler No. 3	5/4/2005	10:45	4.76 %
TA-21-357 Boiler No. 3	4/29/2005	12:40	8.75 %
TA-21-357 Boiler No. 3	4/20/2005	10:05	6.25 %
TA-21-357 Boiler No. 3	4/14/2005	11:00	5.625 %
TA-21-357 Boiler No. 3	1/12/2005	10:10	6.125 %
TA-21-357 Boiler No. 3	1/6/2005	10:45	9.875 %

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**Attachment D
Carpenter Shop Hours of Operation**

2005 TA-3 & TA-15 Carpenter Shops

TA-3	Data Entry
Month	Hours of Operation
	TA-3
January	7.5
February	20.5
March	20.4
April	14.5
May	12.3
June	8.6
6 mo. Total	83.8

TA-15	Data Entry
Month	Hours of Operation
	TA-15
January	0.0
February	0.0
March	0.0
April	0.0
May	0.0
June	35.4
6 mo. Total	35.4

Saws, drills, shaping and sanding equipment shall each not operate in excess of 4368 hours per year.

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**Attachment E
Degreaser Solvent Usage**

Los Alamos National Laboratory

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**METEOROLOGY &
AIR QUALITY**

RRES-MAQ Labview

RISK REDUCTION & ENVIRONMENTAL STEWARDSHIP DIVISION

 phone: 665-8855
 fax: 665-8858
 who we are

Degreaser Compliance Site

Historical Solvent Usage Data

The usage information for UT Bath degreaser from Jan-01-2005 through Jun-30-2005 is displayed below.

General Degreaser Information

Degreaser Type	TA	Building	Solvent		
Cold Batch	55		Trichloroethylene		

Date Measured	Initial Solvent Level (inches)	Volume Added (liters)	Level Added (inches)	Volume Removed (liters)	Level Removed (inches)
Jan-03-2005	7.4	0.00	0.00	0.0	0.0
Feb-01-2005	7.0	0.00	0.00	0.0	0.0
Mar-01-2005	6.8	0.00	0.00	0.0	0.0
Mar-07-2005	6.8	0.00	0.00	13.37	6.8
Mar-08-2005	0.0	14.74	7.50	0.0	0.0
Apr-04-2005	7.3	0.00	0.00	0.0	0.0
May-02-2005	7.1	0.00	0.00	0.0	0.0
Jun-05-2005	6.8	0.00	0.00	0.0	0.0
Jun-23-2005	6.6	0.00	0.00	12.97	6.6
Jun-27-2005	0.0	15.33	7.80	0.0	0.0

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**Attachment F
Internal Combustion Generator Hours of Operation**

First 6 Month Readings 2005										Second 6 Month Readings 2005					
TA	Bldg	KW	Fuel Type	Reading Date 2nd half 04'	Reading 2nd half 04'	6 Month Reading Date	Reading	Hours Run	Days between readings	6 mth. Prorated Hours	12 Month Reading Date	Reading	Hours Run	Days b/t readings	6 mth. Prorated Hours
3	40	150	Diesel	12/01/2004	245.0	06/01/2005	246	1	180	1.0					
3	223	45	Nat. Gas	12/01/2004	452.1	05/01/2005	457	4.9	150	5.9					
3	1404	1250	Diesel	11/01/2004	79.0	06/01/2005	123.5	44.5	210	38.1					
3	440	150	Diesel	12/01/2004	98.0	06/01/2005	104	6	180	6.0					
3	440	500	Diesel	12/01/2004	42.9	06/01/2005	49	6.1	180	6.1					
3	1076	35	Diesel	01/01/2005	44.5	06/01/2005	56	11.5	150	13.8					
3	1498	600	Diesel	12/01/2004	269.0	06/01/2005	276	7	180	7.0					
3	2322	80	Diesel	12/01/2004	56.8	06/01/2005	192.6	135.8	180	135.8					
16	205	250	Diesel	11/01/2004	1008.7	06/01/2005	Shutdown	0	210	0.0					
16	980	1100	Diesel	12/01/2004	10.4	06/01/2005	19	8.6	180	8.6					
16	1374	60	Nat. Gas	12/01/2004	865.2	05/01/2005	908	42.8	150	51.4					
18	31	275	Diesel	12/01/2004	147.6	06/01/2005	154	6.4	180	6.4					
21	155	750	Diesel	12/01/2004	825.6	06/01/2005	832	6.4	180	6.4					
21	257	20	Diesel	12/01/2004	189.0	06/01/2005	190	1	180	1.0					
21	357	125	Diesel	12/01/2004	445.0	06/01/2005	451	6	180	6.0					
21	1002	175	Diesel	11/01/2004	2878.2	05/01/2005	2982	103.8	180	103.8					
21	1002	350	Diesel	12/01/2004	1770.9	05/01/2005	1778	7.1	150	8.5					
21	1002	150	Diesel	12/01/2004	1072.8	05/01/2005	1080	7.2	150	8.6					
33	87	30	Diesel	12/01/2004	840.5	05/01/2005	870.0	29.5	150	35.4					
33	151	225	Diesel	12/01/2004	2944.0	05/01/2005	2944	0.0	150	0.0					
33	208	1600	Diesel	12/01/2004	4.9	05/01/2005	4.9	0	150	0.0					
33	Point	80	Diesel	12/01/2004	7643.1	05/01/2005	7643.1	0	150	0.0					
35	2	100	Diesel	01/01/2005	95.3	05/01/2005	105	9.7	120	14.6					
43	1	50	Diesel	12/01/2004	344.6	06/01/2005	351	6.4	180	6.4					
43	1	150	Diesel	12/01/2004	455.3	06/01/2005	483	27.7	180	27.7					
46	335	300	Diesel	12/01/2004	717.3	05/01/2005	748	30.7	150	36.8					
48	45	125	Diesel	12/01/2004	328.5	06/01/2005	334	5.5	180	5.5					
50	37	500	Diesel	12/01/2004	463.8	06/01/2005	470	6.2	180	6.2					
50	184	60	Nat. Gas	01/01/2005	49.5	05/01/2005	65	15.5	120	23.3					
50	188	1250	Diesel	12/01/2004	131.2	06/01/2005	138	6.8	180	6.8					
53	1	60	Nat. Gas	12/01/2004	971.1	06/01/2005	1017.5	46.4	180	46.4					
53	2	50	Diesel	12/01/2004	189.0	06/01/2005	193	4	180	4.0					
53	M	60	Diesel	12/01/2004	4440.0	06/01/2005	4440	0	180	0.0					
53	M	12.5	Nat. Gas	12/01/2004	581.5	06/01/2005	581.5	0	180	0.0					
54	412	500	Diesel	12/01/2004	242.6	06/01/2005	248	5.4	180	5.4					
55	5	100	Nat. Gas	12/01/2004	44.7	06/01/2005	53.3	8.6	180	8.6					
55	8	600	Diesel	12/01/2004	760.6	06/01/2005	773	12.4	180	12.4					

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55	28	40	Diesel	12/01/2004	31.4	06/01/2005	38.6	7.2	180	7.2			
55	47	200	Diesel	12/01/2004	480.6	06/01/2005	487	6.4	180	6.4			
55	142	400	Diesel	12/01/2004	24.8	06/01/2005	31	6.2	180	6.2			
59	1	90	Diesel	12/01/2004	725.5	06/01/2005	731	5.5	180	5.5			
61	23	20	Diesel	12/01/2004	569.9	05/01/2005	569.9	0	150	0.0			
64	1	250	Diesel	12/01/2004	114.6	06/01/2005	129	14.4	180	14.4			
69	33	1250	Diesel	12/01/2004	16.5	06/01/2005	30	13.5	180	13.5			
	44								TOTAL	707.1		TOTAL	0.0

N/R = Not Read

First half average hours per unit 16.1 Second half average hours per unit 0.0

Annual Average of hours per unit 8.04

Permit Limit: Average of 168 hours/year each

**Los Alamos National Laboratory
Operating Permit P100
Semi-Annual Monitoring Report
January 1 – June 30, 2005**

**Attachment G
Paper Shredder Box Throughput**

2005 TA-52 Data Disintegrator

Data Entry			Data Entry		
Month	Boxes ^(c) Shredded	12-Month Rolling	Month	Boxes ^(c) Shredded	12-Month Rolling
January	665	3031	July		
February	768	3799	August		
March	1065	4864	September		
April	844	5708	October		
May	768.25	6476	November		
June	650	7126	December		
6 mo. Total	4,760		6 mo. Total	0	

Annual Boxes (2005)	4,760
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**Los Alamos National Laboratory
Operating Permit P100
Semi-Annual Monitoring Report
January 1 – June 30, 2005**

**Attachment H
Power Plant Natural Gas and Fuel Oil Usage**

2005 Small Boilers Gas Usage

Month	Metered Boilers			Total Gas Use ^(a)		Non-Metered Gas Use	12-Month Rolling Total for all Small Boilers (MMSCF) ^(e)	
	TA-55 Boiler Gas Use (MSCF) ^(c)		TA-50-2 ^(d) (MSCF)	(MSCF)	(MMSCF)	(MMSCF)		
	BHW-1B (B-602)	BHW-2B (B-603)	BS-1					
January	82	2798		75,388	75.39	72.51	539.37	
February	1360	925		68,552	68.55	66.27	534.54	
March	14	2969		65,683	65.68	62.70	545.28	
April	17	2746		48,462	48.46	45.70	544.79	
May	6	2178		30,265	30.27	28.08	547.61	
June	5	1928		15,693	15.69	13.76	547.14	
July								
August								
September								
October								
November								
December								
TOTAL	1484	13544	0	304043	304.04	289.02	Permit Limit	870

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2005 TA-3 Power Plant Fuel Use Totals

Month	TA-3-22 Steam		TA-3-22 Steam		TA-3-22 Steam Plant ^o		Monthly Totals	
	Natural Gas (MCF) ^a	Fuel Oil (gallons) ^a	Natural Gas (MCF) ^a	Fuel Oil (gallons) ^a	Natural Gas (MCF) ^a	Fuel Oil (gallons) ^a	Natural Gas (MMCF) ^a	Fuel Oil (gallons) ^a
January	6231	706	0	0	60123	119	66.354	825
February	3136	0	598	0	53192	122	56.926	122
March	4944	35	29	0	54579	0	59.552	35
April	192	446	38481	598	9028	0	47.701	1044
May	18337	512	23362	384	64	0	41.763	896
June	30209	0	28	0	450	656	30.687	656
July								
August								
September								
October								
November								
December								
Annual Totals:	63049	1699	62498	982	177436	897	302.983	3578
Jan. - June	63049	1699	62498	982	177436	897	302.983	3578
July - Dec.	0	0	0.00	0	0	0	0.00	0

Month	12-Mo. Rolling Total Natural Gas (MMscf)	12-Mo. Rolling Total Fuel Oil (gallons)
January	554.1	27489
February	546.0	26673
March	551.0	23311
April	553.4	20777
May	557.3	21673
June	558.4	22329
July		
August		
September		
October		
November		
December		

Permit Limits:	2000 MMscf	500,000 gallons
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**Los Alamos National Laboratory
Operating Permit P100
Semi-Annual Monitoring Report
January 1 – June 30, 2005**

**Attachment I
Power Plant Opacity Reports**

Summary Table, Reports Attached

Source	Date	Time	Opacity
TA-3-22 Power Plant	6/30/2005	10:10	13.625 %
TA-3-22 Power Plant	6/22/2005	9:40	7.25 %
TA-3-22 Power Plant	6/15/2005	9:06	0.625 %
TA-3-22 Power Plant	5/24/2005	8:41	11.375 %
TA-3-22 Power Plant	5/24/2005	10:34	0.0 %
TA-3-22 Power Plant	5/5/2005	10:40	9.375 %
TA-3-22 Power Plant	5/5/2005	11:40	2.125 %
TA-3-22 Power Plant	4/21/2005	10:15 – 13:20	3.375 %
TA-3-22 Power Plant	4/21/2005	10:15 – 13:20	3.625 %
TA-3-22 Power Plant	4/5/2005	10:30	3.875 %
TA-3-22 Power Plant	1/11/2005	10:32	0.0 %
TA-3-22 Power Plant	1/11/2005	9:35	0.0 %