1. Asphalt Production

Permit condition 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.

Permit condition 2.1.4.2: Monitor the differential pressure (inches d water) across the baghouse by the use d a differential pressure gauge, in accordance with condition IV.C.2 of NSR permit number GCP-3-2195G.

Permit condition 2.1.4.3: 40 CFR Part 60, Appendix A, Method 9 shall be used to determine compliance with the opacity limitation.

Construction of the new BDM asphalt plant began in February, but was stopped for the spotted owl nesting season. Construction resumed in October, but was not completed in 2004; no monitoring performed.

2. Beryllium Activities

Registered Beryllium Sources

Chemistry and Metallurgy Research Facility TA-3-29

Permit condition 2.2.4: A log shall be maintained during operations which indicate the number **d** Be samples processed.

Sigma Facility TA-3-66

Permit condition 2.2.4: A log shall be maintained during operations which show the number **d** metallographic specimens used in the polishing operation and the weight **d** Be samples processed in the electroplating / chemical milling, machining, and arc melting/casting operations.

TA-16-207

Permit condition 2.2.4: Projectfiles shall be maintained **d** components prepared for testing.

TA-35-87

Permit condition 2.2.4: A log shall be maintained during operations which show the number of beryllium filters cut.

> Registered beryllium sources; log books are available on-site for NMED inspection.

TA-3-141 Permitted Source

Permit Condition 2.2.4: Facility exhaust stack will be equipped with a continuous emission monitor used to measure beryllium emissions.

| Quarter | Submitted to NMED |
|-----------------------|---|
| Second Ouarter Report | RRES-MAO:04-249, dated July 29.2004 |
| Third Quarter Report | RRES-MAQ:04-369, dated November 8,2004 |

Permit Condition 2.2.4: 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 to read differential pressure across the filters.

TA-35-213 Permitted Source

Permit Condition 2.2.4: 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.

TA-55-PF-4 Permitted Source

Permit Condition 2.2.4: 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 exhaustfans are in operation.

The HEPA filtration system is equipped with a differential pressure gauge that measures the differential pressure across the HEPA filters.

Permit Condition 2.2.4: Control efficiency shall be verified by daily HEPA filter pressure drop tests and annual HEPA filter challenge tests of accessible filters.

Summary of HEPA Filter Test Results

| Unit | Date | Pass/Fail |
|---------------------------|-----------|-----------|
| 100 Area Glovebox Exhaust | 6/3/2004 | Pass |
| 300 Area Glovebox Exhaust | 9/22/2004 | Pass |

3. Boilers and Heaters

Permit condition 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.

Permit condition 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.

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, TA-21-357-3, TA-55-6-BHW-1 and TA-55-6-BHW-2. Natural gas usage records are available onsite for NMED inspection.

Permit condition 2.3.4.3: **40** CFR Part 60, Appendix A, Method 9 shall be used to determine compliance with the opacity limitation.

| Source | Date | Time | Opacity |
|------------------------|------------|---------------|---------|
| TA-21-357 Boiler No. 2 | 1212012004 | 11:40 - 12:40 | 3.25 % |
| TA-21-357 Boiler No. 2 | 1212112004 | 15:45 - 16:05 | 3.25 % |
| TA-21-357 Boiler No. 3 | 1212212004 | 14135-14:55 | 4.625 % |

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

Permit condition 2.4.4.1: Thepermittee shall maintain logs of the hours the carpenter shops are in operation.

A logbook is maintained of the hours of operation at the TA-3-38 shop and is available on-site for NMED inspection. The TA-15-563 carpenter shop has not operated.

5. Chemical Usage

Permit condition 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 semiannual basis in accordance with Condition 4.1.

Records are maintained in LANL's ChemLog database. The data will be used to calculate emissions and will be submitted in the semi-annual emissions report.

6. Degreasers

Permit condition 2.6.4.1: Record the amount of solvent added to the degreaser, and calculate the emissions on a semiannual basis in accordance with Condition 4.1.

Permit condition 2.6.4.2: Complete checklist for work practice standards.

Records of solvent added to the degreaser and completed work practice checklists are maintained on-site and are available for NMED inspection.

7. Internal Combustion Sources

Stationary Standby Generators

Permit condition 2.7.4: Track and record hours of operation for stationary standby generators on a semiannual basis.

Records tracking generator hours of operation are maintained on-site and are available for NMED inspection.

TA-33-G-1 Diesel Fired Generator

Permit condition 2.7.4: TA-33-G-1 Track hourly and 12-month rolling total kWh.

Permit condition 2.7.4: Record hours σ operation and the time operation begins and ends each day.

Permit condition 2.7.4.1: 40 CFR Part 60, Appendix A, Method 9 shall be used to determine compliance with the opacity linzitation.

Installation of the TA-33-G-1 generator was not completed in 2004. No monitoring performed this period

8. Paper Shredder, TA-52-11

Permit condition 2.8.4.1: Thepermittee shall maintain a log of the number of boxes of media that are shredded and calculate the emissions on a semiannual basis in accordance with Condition 4.1.

The number of boxes of media shredded is recorded in a logbook and is available for NMED inspection. Actual number of boxes shredded and emissions are included in LANL's semi-annual emission report.

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

Permit condition 2.9.4.1: A volumetric jlow meter shall be installed and utilized to measure the total amount σ natural gas being used on a daily basis.

Permit condition 2.9.4.2: Totalfuel oil consumption shall be monitored on a monthly basis.

Permit condition 2.9.4.3: If total natural gas used exceeds 3,400 MMscf per 365 day rolling total, semiannual compliance stack tests shall be conducted for NOx and COfrom 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.

- Daily natural gas and monthly fuel oil usage records are available on-site for NMED inspection. Since LANL did not exceed 3,400 MMscf per 365 days, semiannual compliance testing is not required.
 - 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.

Permit condition **2.9.4.4**: 40 CFR Part 60, Appendix A, Method **9** shall be used to determine compliance with the opacity limitation.

| Opacity I tot Result Summ | | licu) | | |
|---------------------------|-----------|-------|----------------|--|
| Source | Date | Time | Opacity | |
| TA-3-22 Power Plant | 8/24/2004 | 9:35 | 0.125 % | |
| TA-3-22 Power Plant | 8/24/2004 | 10:00 | 0 | |
| TA-3-22 Power Plant | 8/24/2004 | 10:45 | 0 | |
| TA-3-22 Power Plant | 8/24/2004 | 10:59 | 0.75 % | |
| TA-3-22 Power Plant | 8/24/2004 | 11:14 | 6.5 % | |
| TA-3-22 Power Plant | 8/24/2004 | 11:44 | 1.75 Yo | |

Opacity Test Result Summary (forms attached)

| TA-3-22 Power Plant | 8/24/2004 | 12:28 | 0.75 % | |
|---------------------|------------|-------|---------|--|
| TA-3-22 Power Plant | 8/24/2004 | 1:06 | 1.25 % | |
| TA-3-22 Power Plant | 8/24/2004 | 3:40 | 0.548 % | |
| TA-3-22 Power Plant | 9/28/2004 | 11:58 | 0.125 % | |
| TA-3-22 Power Plant | 9/28/2004 | 12:10 | 0 | |
| TA-3-22 Power Plant | 9/28/2004 | 12:22 | 0 | |
| TA-3-22 Power Plant | 10/13/2004 | 10:34 | 3.375 % | |
| TA-3-22 Power Plant | 10/20/2004 | 10:43 | 0 | |
| TA-3-22 Power Plant | 10/26/2004 | 1:20 | 6.125 % | |
| TA-3-22 Power Plant | 11/3/2004 | 10:17 | 5.375 % | |
| TA-3-22 Power Plant | 11/8/2004 | 7:42 | 1.375 % | |
| TA-3-22 Power Plant | 12/9/2004 | 8:10 | 0.25 % | |
| TA-3-22 Power Plant | 12/9/2004 | 9:04 | 3.25 % | |

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

Permit condition 2.10.4.1: A compliance test to measurefugitive particulate emissions shall be conducted within 60 days of initial startup, in accordance with the requirements in NSR permit 2195.

Permit condition 2.10.4.2: 40 CFR Part 60, Appendix A, Method 9 shall be used to determine compliance with the opacity limitation.

LANL submitted a letter to NMED on June 10,2004 providing notification that LANL will not operate the rock crusher. No monitoring was performed. 

NMT8-TSR-002-R02 Page 30 of 3

CONTROLAND EXECUTION OF TA-55 SAFETY SYSTEM LCOs AND SURVEILLANCES

| | ATTACHMENT E |
|-------------------------|--|
| | Surveillance / Training Checklist |
| instruction Title: | 300 Arm Glovebox Exhoust In Place NEPA Alter Tosting |
| Instruction#: | TASS- TSR- 1046- ROI |
| Date of issue: | 9/22/04 |
| Working copy issued to: | Bart Ortiz |
| Working copy issued by: | <u> </u> |
| | (Certified Operations Center operator] |

Operation Center operator review:

🗙 SAT Signature

D UNSAT

9/30/04 Date

Training Checklist

Ttaining requirements current;

date

2/22/04

Art Verrera M

Personnel performing Surveillance Instruction;

Comments:

Earliest Phenum Test was 9/22/04____

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| 01/14/05 | 11:32 FAA | 202 201 2501 | | 0.9 ¥ 8.150 |
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NMT8-TSR-002-R02.1

Page 30 of 31

CONTROL AND EXECUTION OF TA-55 SAFETY SYSTEM LCOs AND SURVEILLANCES

| | ATTACHMENT E |
|---------------------------|--|
| | Surveillance / Training Checklist |
| Instruction Title; - | Area Glovebox Exhaust IN-Place HEPA Filter Testing |
| Instruction#: | TA-55- TSR-104A-ROI |
| Date of issue: | <u>6/3/04</u> |
| Working copy issued lo: | 1 ru Bornstein |
| Working copy issued by: | AI Huff |
| | Certified Operations Center operator] |
| Operation Center operator | review |

E SAT

Signature

ONLY

UNSAT -6-3-2004

Date

Training Checklist

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Training requirements current; Personnel performing Surveillance Instruction; initials date A harry 6 Bornstein 3/64 Horrera Ħ + CISIOY M Ricky 6/3/04 Lopez . The 6/3/04 Michael Tris AU 6/3/04 Pau Trujillo .

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| Environmental Improvement Division RECORD OF VISUAL DETERMINATION OF OPACITY | | | | | | | | | | | |
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| Cos Alanon TIM | Min | 0 | 15 | 30 | 45 | | 0 | 15 | 30 | 45 | |
| Type of Source Plant Type of Control Equipment | 1 | 0 | 0 | O | 0 | 13 | | | | | |
| Coscribe Errission Point (top of stack, etc.) | 2 | 0 | 10 | 0 | 6 | 14 | | | | | |
| Height Above Ground Level Height Relative to Observer | - 3 | 6 | 0 | D | 0 | 15 | - | | | | |
| Distance from Observer | 4 | 0 | 12 | 10 | 0 | 16 | | | | | |
| Description of Flume (stack exit only) Lotting Trapping | 5 | 0 | E | F | 10 | 17 | | | | - | |
| Emission Color Plume Type | 6 | 6 | 5 | ă | 8 | 18 | | . | | | |
| Weter Droplets Present? | 7 | Õ | 0 | ħ | 0 | 19 | | | | | |
| At while point in the plume was associty determined | de 8 | Ø | 10 | 2 | 8 | 20 | | | | | |
| Describe Balkground (La pipe sky, trees, etc.) | 9 | 5 | ð | D | 5 | . 21 | | | | | |
| Background Color Sky Congitions | 10 | Ó | D | 0 | ð | 22 | | | | | |
| Lind Speed Wine Direction (La, frem North to Sough) | 11 | - | | | | 23 | | | | | |
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| | Environmental Improvement Division RECORD OF VISUAL DETERMINATION OF OPACITY | | | | | | | | | | | | | |
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| Emission Color | Plume Type | | | | 6 | Ś | 2 | | 2 | | | | | |
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| 0,(| | | | | Name: Signature | Ļ | 1 | | 7/2 | Cata Cata | <u>, 1</u> | | -22 | - |
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| Environmental Improvement Division RECORD OF VISUAL DETERMINATION OF OPACITY | | | | | | | | | | | | |
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| 14322 Pare Plant | Case P | 2 | | 04 | 57 | art tim | 5 | STOP | TIME | 5 | | |
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| Distance from Obsequer Direction from Obsequer | 3 | \overline{O} | <i></i> | 0 | Ø | 15 | | | | | | |
| Description of Plume (stack exit cally) | 4 | \mathcal{D} | Q | 0 | Ľ | , 18 | | | | | | |
| Looping Finning Coning Fungetion Emission Color Plume Type | 5 | Q | $\underline{\mathbb{Q}}$ | 0 | $\underline{\mathbb{O}}$ | 17 | | | | | | |
| Water Oropiets Present? | 6 | Q | \mathcal{O} | t | | 18 [.] | · | · | | | | |
| At what point in the plane was opacity determined? | .7 | \mathcal{O} | R | 2 | Q | 19 | | | | | | |
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| Backgroung Color Star Sengthons | 9 | \mathcal{R} | 읽 | | | . 21 | · · | | <u>. </u> | | | |
| Wind Direction (La. from Notic & South) | 10 | \Box | 9 | 4 | D | 22 | · _ | | | _ | | |
| nbient Temperature Wet Temperature Relative Humidity | 11 | | | | | 23 | | | | | | |
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| 143-22 Bue | - Plant | 8/2 | 24 | <u>/</u> 0 | 4 | 2 | 2.5 | 9 | | 11 ME | 31 |
| Los Alamos, | MAN | Min. | 0 | 15 | 30 | 45 | Min | 0 | 15 | 30 | 45 |
| De ser Plant | Type of Control Equipment | 1 | 0 | 0 | 2 | $\overline{\mathbb{O}}$ | 13 | | | | |
| Desertible Emission Point (top of stack, | etc.) | 2 | 5 | X | 2 | 2 | | | | | |
| Height Above Grafind Level | Halght Relative to Observer | | | <u> </u> | | <u> </u> | 14 | | | | |
| Distance from Observer | Direction from Observer | 3 | \odot | 9 | 0 | 0 | 15 | | | | |
| 200 Yards | N. West | 4 | \bigcirc | 0 | 0 | Ð | , 16 | | | · | |
| Looping Finning | Coning Conting Trapping | 5 | \bigcirc | \mathcal{O} | 5 | 5 | 17 | · | | | _ |
| Emission Color Plume Type | | 6 | 5 | 5 | 2 | 2 | 18 (| • | • | | |
| Water Gropiets Present? | | - | 2 | 5 | 2 | 2 | | | | -+ | |
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| Wind Speed Wind Direct | on ILa from Porth to South) | 11 | - | - | | | | | ·+ | -+ | |
| nbient Temperature Wet Temper | ature Relative Humidity | | | | | <u>-</u> + | | | -+ | | |
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| | RECORD OF VISU | AL DET | ERM | INAT | ION | OF | OPACI | TY | | | |
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| Cos Alman | an | 1 | 0 | 15 | 30 | 45 | | | | | |
| Type of Source D/ + | Type of Contral Equipment | Min. | | | | 1 | Min | <u> </u> | 18 | 30. | .45 |
| Describe Emission Point (top of stars | N/It | + ¹ | Dr. | 20 | Æ | 40 | 13 | | | | ' |
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| For Above Ground Lavel | Haight Relative to Obsepter | 3 | h | 0 | D | Ð: | 15 | | | | |
| Distance from Observer | Direction from Observer | + | ħ | 5 | 0 | 5 | | | | - . | |
| Description of Plume (stack exit only | KLotting Transien | | K | 2 | K | 2 | 18 | · | | | |
| Emission Color | Coning D Fumigation | 5 | Ľ | \mathcal{O}_{i} | Ø | \mathcal{O} | 17 | | | | |
| Black Com | ntinuous 💩 Fugitive 🗆 Intermitment | 6 | Ø | 0 | Ø | 0 | 18 \ | · | · | | |
| Water Droplets Present? | | 7 | 0 | 0 | Ă | D | 10 | | | | |
| At what point in the plume was opag | ity determined | | K | 5 | 6 | 5 | 19 | | | | |
| Cascribe Background (Le. blue sky. tr | op of orall | 8 | Y | $\mathcal{O}_{\mathcal{O}}$ | 2 | 2 | 20 · | | | | |
| Blue | | 8 | U | $\langle \rangle$ | Ð | \mathcal{O} | . 21 | · | | .] | |
| Hue' | Stry Panalitican 97/9 Cl 29 | 10 | \mathcal{O} | V | Ø | Ð | 22 | | | • | _ |
| Kind Speed Wind Dire | ction (Le. from North to South) | 11 | | - | - | - | | | | | |
| nblent Temperature Wet Temp | erature Relative Humidity | | | <u> </u> | | | 23 | | | | |
| COMMENTSI DE | 3 80 6/ 8 | 12 | meditor | | | | 24 | <u> </u> | | | |
| Doller | - lrigged | | , | 6 | 15 | 5 | Mig.a | D D | Maxi Max | 5 | 0 |
| a Bal In | 1 1 1-3 | OBSERV | | | | Ø | lo Ter | 5 | N. | Ś. | |
| y riente | | Cignus ture | - / | A | 2- | 1 | Cata 🧹 | 7 | 201 | 1 | H |
| Durnor. | Ś Č | Organizat | nel in | 12 | 4/1 | 5 | Cartificati | m Det | 1 | 0 | |
| | / | 1530 | <u>_</u> | 121 | NU | | · 7 | 2/ | 0 | 4 | |
| North Direction | | | IMP | ORTA | INT: I | Please | indicate 1 | the fol | lowin | y by si | etch: |
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| VI) R | TI T | | | | , r | بسبهم | Plun | ne Cire | ction | | |
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| • | Observer's | | 1 | ackno isible d | wledg missi | e rece ons ob | ipt of a.c. | opy of | f th ese | | |
| 1 | Position | | | | | | | - | | | |
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Meteorology and Air Quality Los Alamos NationalLaboratory

EID 000 tasued 1/85

RRES-MAQ-307, R1 Attachment' 2, page 1 of L

Environmental Improvement Division RECORD OF VISUAL DETERMINATION OF OPACITY

ATION DATE ST 420 / স্ক -2 R S 0 15 30 45 ۵ 15 30 45 ~ 1 C 5 13 9 උ 2 . \mathcal{O} 10 20 14 0 t Relative to Ol ろ 3 60 Feet 2 Frant 0 15 Distance from Ob Direction from 4 2 18 Yards 0-12 ription of Plume (stack exit only) Lotting 5 9 🖆 Looping C Finning Coning ~ 17 Fumigation \overline{C} Placem Type Continuous D Fugitive D Intermittent 6 2010 ଚ 2 18 7 NO YES If YES, droplet plume is C Attached C Detect 19 8 1 Ð 20 9 Ĉ 2 21 2 10 , 22 11 23 12 6 24 ODEC 0. 5 Min.; Max. VER ORSER 64. Their a \mathcal{S} 7 5, ハ Draw Arrow in IMPORTANT: Please indicate the following by sketch: North Direction urne Direction SCHROZ

Sun Norsh I acknowledge receipt of a copy of these visible emissions observations. Signature: Title: Dete:

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| VISIBLI | E EMISSION OB | SEF | RV | 4 <i>TI</i> | 101 | V F | ORI | И | | | |
|--|--|-----------------------|---------------|--------------|--------------|-----------|---------------|----------|--------------|---------|--------|
| | Environme RECORD OF VISUA | ntal Im 1. DET | prove ERMI | ment INAT | Divis 10N | ion OF | OPACI | FY | | | |
| 10RCE A 3.22 P2 | swar Mant | OBSERV | 12 | | 84 | 4 5 | SART TIM | 6 | STOP | TIME | 6 |
| 605 Alano | s,am | Min. | 0 | 15 | 30 | 45 | sec. | 0 | 15 | 30 | 45 |
| Poor Plant | Type of Control Equipment | 1 | 22 | Z | 10 | 0 | 13 | • | | | |
| Describe Emission Point (top of stack,) | Ah | 2 | 3 | e | 0 | 0 | 14 | | | | • |
| Feet | Height Relative to Observer | 3 | 0 | 0 | 0 | 0 | 15 | | | | |
| Distance from Observer Yards | Direction from Observer | • 4 | 0 | 0 | 0 | 0 | , 18 | | | | |
| Description of Plume (stack exit only) | Coning Coning Coning | 5 | 0, | 0 | D | 0 | 17 | | | | |
| Emission Color Plume Type | nuous 🗇 Fugitive 💭 Intermittent | 6 | Ø | S | 0 | 0 | 18 4 | · • | · | | |
| NO YES IT YES, droplet | plume is 🔲 Attached 💭 Detached | 7 | 0 | 0 | 8 | 0 | 19 | | | | |
| At what point in the plume was opacity | Hall TOP | 8 | 0 | 0 | 8 | 6 | 20 . | | | | |
| Burger Blend la bive sty, tree | Mont | 9 | 0 | 2 | 2 | 5 | 21 | · . | | - | |
| Sickground Cold | Sky constions | 10 | | | | | 22 | | | | |
| Wind Speed Wind Direction | on the tran North to South t | 11 | | | | | 23 | | | | |
| Abient Temperature | iture Relative Humidity | 12 | · | | | | 24 | | | | - |
| 2 Burn | ers Tring | Average O | pacity | 1. | 2 | 5 | Range of C | | Reads Mex | | 0 |
| & Reliat | h1 af 283 | OBSERVI Name | De | | DF | T | I THE | .3 | | Ž | 7 |
| Bulance | | Signatum . | 94 | Z | Ł | 7 | Date 8 | 12 | 4/2 | 54 | - |
| Lunden | - | opportunitant 1952 | -A. | ZA | V | | Cartification | Day Case | 4 | | |
| Draw Arrow in North Direction | | | IMP | ORTA | INT: I | lease | indicate 1 | the fol | lowin | i på si | (etch: |
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RRES-MAQ-307, R1 Attachment 2, page 1 of 1



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| Ston Punt What | 1 | Ø | à | 0 | Ò | 13 | | | | |
| Ten A Hale | 2 | 0 | D | 8 | 0 | 14 | | | | |
| Hidght Above Ground Level Hidght Relative to Observer | 3 | 0 | D. | Ø | δ | 15 | | _ | | |
| Distance from Observer Direction from Observer | 4 | 2 | | D | 5 | 18 | | | ' | |
| Cesaription of Plume (stack exit only)) Lotting C Trapping | 5 | 0 | b | 0 | 5 | , 17 | ··· | | | |
| Englishion Color Plume Type | 6 | · | | J | | 18 ' | | • | | |
| Water Groelets Present? | 7 | | | 14 | | 19 | | | | \neg |
| At the plant in the plante we caughy determined? | 8 | | | \mathcal{J} | | 20 . | | | | |
| Beneritive Backley und (La bive sity, treat, etc.) | 9 | \mathbf{T} | | Ň | | 21 | | | | |
| Bacteround Coller Bier Constitues | 10 | Ì | | Ň | | 22 | . | | | |
| Und Speed Wind Obrection (La, trans North to South) | 11 | | | | $\overline{}$ | 23 | | | | |
| Alastive Humidity | 12 | | | | <u>,</u> | 24 | + | -+ | ╧╉ | |
| Eishet of Burn H.2 | Airerage O | peaky | ~ | | | Range of C | - | Readle | | 1 |
| on Briten Z | OBSERVI Name: | | | en. | P/_ | tone | . 5 | | 5 | - |
| Sciental Dunner Trippe | Stancure | J | 1 Pe | 15 | 5 | 0000 9/ | 5 | <u></u> 5/ | 09 | Z |
| Hofler 5 Mon . | Cormentant | . 1 | 2 | ÛI | | Cartificant | 500 | 24 | | \neg |
| Draw Arrow in North Direction | 5 | HMP | ORT | NT: F | lease | indicate t | the fol | lowing | l pÅ ak | anch: |
| | , – | ר | | <i>с</i> . | بب | - | | | | |
| | | | · | 5 | | - Mun | ne Olrec | tion | | |
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| Observer's Position | | / M | acimo inible d | wiecigi wniasia | n nace | pt of a co | apy of L | these | | |
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| 7A3.22 | Care | n Pl | art | 1201 | 7/3 | 372 | ₹c/ | | (ク. 5 | $\boldsymbol{\mathcal{L}}$ | STOP | | d |
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| 1605 Alon | 405. | nM | | Man. | 0 | 15 | 30 | 45 | | a | 15 | 30 | 46 |
| Type of Source. | | Type of Co | piral Equipment | | | | | | | | | | |
| Cogen / | cnt | N/ | 9 | 1 | 0 | 0 | \mathcal{O} | 0 | 13 | 5 | 6 | | 1 |
| Describe Emission Point (| top of stack, e | they | | | | | | | | <u> </u> | | | |
| 1.010 | 2400 | n | | 2 | $ \circ $ | 2> | Ċ | 3 | 14 | Ka | 10 | 12 | 10 |
| Height Adove Ground Lev | | Height Rela | tive to Observer | 1 · . | | | | • | | | | | |
| | O Feet | | <u>70 Feet</u> | 1 3 | 0 | C) | ~ | 21 | 15 | 10 | 10 | 10 | 10 |
| Distance from Observer | | Direction fr | om Oberrver | | - | | | 2 | 10 | 1 | | 1 | |
| Description of Burne Inter | | 177.2 | 1025 | | 22 | 25 | - C> | · | , 10 | 1.0 | 10 | 10 | 70 |
| | sk ukit diniy) | | iting Trapping | 5 | 0 | 0 | 6 | 2 | 17 | ~ | <u>-</u> | 5 | 2 |
| Emission Color | | Coning | LJ Fumigation | ļ | | | | | | 2 | 2 | | \Box |
| Classic | Kan | | | 6 | 5 | 0 | \bigcirc | G | 18 (| CJ | cr. | 0 | 5 |
| Water Oropiets Present? | | | grove 🔟 intermittent | ļ | $\mathbf{\nabla}$ | | | - | 10 | | | | |
| DENO DIYES H | YES, droplet o | skame in 🗂 | | 7 | \mathcal{O} | \mathfrak{O} | 5 | \geq | 19 | 6 | 6 | 0 | ~ |
| At what point in the plam | e was opecity | determinegi | Accepting CT Participa | } | $\overline{\mathbf{x}}$ | | | $\underline{\bigcirc}$ | | | | - | <u> </u> |
| 1 chare | Sta | -de | | 8 | D | \mathcal{D} | \mathcal{O} | ð | 20 | \odot | C | a | 0 |
| Describe Background (Le. | bitie sky, trem | , stc.) | | | | | | | | - | | - | |
| 014) la | 7 | | | 8 | 0 | \mathcal{O} | O | ^o Cl | . 21 | \mathcal{O} | 0 | C | 0 |
| Background Color | | Sky Condition | ons / | 10 | | ~ | ~ | 2 | | | | | |
| Gray. | liter of the state | <u> </u> | udy | 10 | \sim | \circ | \mathcal{O} | \mathcal{O} | 22 | 0 | ð | \circ | 0 |
| | wind Direction | on (La, form | North to South) | 11 | \cap | (-) | Ċ | 3 | | α | 2 | 0 | 51 |
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| Draw Acrow in | | | | ·/// | | 200 | | | 0 | <u> </u> | 27 | • | |
| North Direction | | | N. | | IMP | ORT/ | INT: F | Yease | indicate (| the fo | llowin | g by si | ketch: |
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| | OBSERV | ATION | DATE | | ST | ART TIM | E | STOP | TIME | |
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| + BOILER (FUELOIL) | -8/ | - | E 12 | 5-26- | -04 | 1 0 | :43 | | / . 4 | 13 |
| TA-3 SM22 AWER PLANT | Min. | 0 | 15 | 30 | 45 | Min. | 0 | 15 | 30 | 45 |
| Type of Source Type of Control Equipment Bailan Couttles | 1 | Ø | e | Ø | e | - 13 | Ð | æ | G | Ð |
| Describe Emission Point (top of stack, etc.) | 2 | B | e | 0 | Ð | - 14 | ø | G | Ø | 0 |
| Height Above Ground Level Height Relative to Observer | 3 | 0 | E | Ø | 0 | 15 | e | 0 | G | a |
| Distance from Observer Direction from Observer | 4 | Ø | C | A | Ð | 16 | Q | Ø | 0 | 9 |
| Yards 60 Description of Plume (stack exit only) Description County Trapping | 5 | 0 | 2 | PP- | X | 17 | E | 2 | | |
| Looping Fanning Coning Fumigation Emission Color Plume Type | | e | C | 10 | | | | | - | 0 |
| Clear Continuous - Fugitive Intermittent | 6 | Ø | e | Ø | 0 | 18 | Ø | | | |
| NO YES If YES, droplet plume is Attached Detached | 7 | P | O | 5 | Ø | - 19 | Ø | Æ | P | e |
| TOP OF STACK (1 FT.) | 8 | e | Ø | Ø | C | 20 | O | e | Ð | 0 |
| Blise Sty | 9 | Ø | Ľ | C | Ø | 21 | e | e | 0 | e |
| Background Color Sky Conditions BLUE CLEAR CP/CD | 10 | Ð | Ø | Ø | E | 22 | E | e | E | E |
| Wind Speed Wind Direction (i.e. from North to South) ' 3/5 mph EAST TO WesT | 11 | e | e | e | U | 23 | C | e | 0. | e- |
| Anwient Temperature Wet Temperature Relative Humidity | 12 | Ø | E | 10 | 10 | •24 | P | 0 | O | e |
| | 1 | - | 1 | 1 | <u> </u> | | <u> </u> | | 1 | |
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| sd , | | | | OBSERV | ATION | DATE | 1 | ST | ART TIM | E | STOP | TIME | 12 |
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| LOCATION | | | <u></u> | Sec. Min. | 0 | 15 | 30 | 45 | Sec. Min. | o | 15 | 30 | 45 |
| Type of Source | | Type of Con | trol Equipment | 1 | Ð | ø | ø | Ð | 13 | Ð. | 4 | 0. | Ø |
| Describe Emission Point (10 | p of stack, et | tc.) | | 2 | Ü | Ë | E | Ľ | 14 | IJ | Ð | 0 | e |
| Height Above Ground Level | Feet | Height Relat | lve to Observer Feet | 3 | Ø | Ð | Ð | E | 15 - | 0 | E. | 0 | 0 |
| Distance from Observer | Yards | Direction fro | om Observer | 4 | Ċ | Ð. | E | e | 16 | Ð | Ð | Q | 0 |
| Description of Plume (stack | exit only) ning | Coning | fting 🛛 Trapping | 5 | Ø | Ø | Ø | Ø | 17 | Ø | e | G | ¢ |
| Emission Color | Plume Type | iuous 🗆 Fu | gitive 🗍 Intermittent | 30 1 1 1 1 | Ø | C | Ċ | Ê | 18 | Ð | e | Ð | 4 |
| Water Droplets Present? | ES, droplet r | olume is | Attached Detached | 7 | Ü | U | Ø | Ø | - 19 | Ø | e | Ø | Ø |
| At what point in the plume | was opacity | determined: | | 8 | Ċ. | 0 | Ø | Ø | 20 | e | e | ÷œ | e |
| Describe Background (i.e. b | lue sky, trees | i, etc.) | | 9 | Ø | Ø | 0 | Ø | 21 | Ø | 0 | 0 | ÷ |
| Background Color | | Sky Conditio | ons | 10 | Ø | Ø | ø | Ð | 22 | 0 | e | ð | 0 |
| Wip read mph | Wind Directio | on (i.e. from) | North to South) | 11 | Ø | Ø | Ø | Ø | 23 | 0 | ÷ | 8 | c |
| Ambient Temperature •F | Wet Tempera | iture +F | Relative Humidity | 12 | Ø | 0 | Ø | Ø | •24 | 6 | -0 | | - |
| COMMENTS | | | | Average C | pacity | , | | | Range of Min.: | Opaci | Ma | Jings X.: | |
| | | | | OBSERV Name: | /ER (19) | lease pr | int) | | Tit | le: | | | |
| | | Signature | • | | | | 0.0 | | | | | | |
| · · · | | | | Organiza | tion | | | | Certificat | tion Da | ite | | |





IMPORTANT: Please indicate the following by sketch:



Plume Direction

45 00

I acknowledge receipt of a copy of these visible emissions observations.

Signature: ____

Title:

Date: _

| E | | OBSERV | ATION | DATE | | ST | | E Ž | STOP | TIME | | | |
|---|--------------------|----------------------|-----------|-----------------|----------|---------|------|--------|-------------------|----------|-----------|----------------|----------|
| OCATION | | | | Sec | <u> </u> | _ | 1 | | Sec. | <u>,</u> | | [-7 | 2 |
| | | | | Min. | 0 | 15 | 30 | 45 | Min. | 0 | 15 | 30 | 45 |
| Type of Source | Type of | Control Equipment | | 1 | 0 | -Æ | -8 | Ð | 13 | | | | |
| Describe Emission Point (top of s | tack, etc.) | | ۲. | c new. | E | Ð | Ð | Ð | 14 | | | | |
| Height Above Ground Level Fee | Height F | lelative to Observer | Feet | 3 | Ð. | Ð | Ð | Ø | 15 | | | • | |
| Distance from Observer Yar | Directlo ds | n from Observer | | 4 | Ø | Ø | Ø | Ø | 16 | | | | |
| Description of Plume (stack exit of Looping Fanning | Coning | Lofting Tr | apping | 5 | Ą | Ø | Ø | Ø | 17 | | | | |
| Emission Color Plume | Type Continuous | Jugitive 🗍 Inter | mittent | 6 | æ | e | Ð | Ø | 18 | | | | |
| Niter Droplets Present? | oplet plume is | Attached D | etached | 7 | Ø | Ø | e | Ð | 19 | | | | |
| At what point in the plume was o | pacity determin | ed? | | 8 | Ð | Ð | Ð | e | 20 | | | | |
| Describe Background (I.e. blue sk | y, trees, etc.) | | | 9 | 1 | | | Q | 21 | | | + | |
| Background Color | Sky Cor | nditions | | 10 | e | e | Æ | ø | 22 | L | | I | |
| Wind Speed wind | Direction (i.e. fr | om North to South) | | 11 | Ø | Ø | Ø | Ø | 23 | | | | |
| Anwight Temperature Wet T | emperature • | 'Relative Humic | sity % | 12 | Ø | e | P | ÷ | ·24 | | | | |
| COMMENTS: | | | | Average C | pacity | -E | | | Range of Min.: | | ty Read | iings x.: 4 | <u> </u> |
| | | | | OBSERV Name: | 'ER (pi | ease pr | int) | | Ti | ile: | • | | |
| | | | | Signature | | alle | a f | , \ | Date | 10 | -20 | - 0 4 | (|
| | | | _ | Organiza | tion K | SL | t |) | Certifica | tion D | ete 25 | -/04 | , |

2nd page

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IMPORTANT: Please indicate the following by sketch:-

. Sun

North

Plume Direction

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I acknowledge receipt of a copy of these

visible emissions observations,

Signature:

- EID 089 Issued 1/85

Draw Arrow in

| | | _ | _ | _ | | | | | | | | |
|--|--------------------------------------|---------------------------------|------------|---|---|-------|--|--|---------------------|-------------|--------|--|
| SOUL # 2 Rilol OBSERVATION DATE START TIME STOP TIME | | | | | | | | | | | | |
| 4.14.20 - | 3 Doiler | 1 | D-Z | 6- | 24 | | (20) | pm | 2: | 150 | | |
| | <u> </u> | Sec | | | | | Sec | i | | -4 | | |
| TA3 SMZ | Z Power Plant | Min. | 0 | 15 | 30 | 45 | Min. | 0 | 15 | 30 | 45 | |
| Type of Source | Type of Control Equipment | • 1 | 40 | 50 | 10 | 0 | 13 | 60 | 100 | 40 | 1 | |
| Describe Emission Point (top of stack, e | ic.) ELL | 2 | ົ | 0 | 0 | อ | 14 | 0 | | | S | |
| Height Above Ground Level | DTUCK Height Relative to Observer | | | | U | | | 0 | 0 | 0 | 0 | |
| <u>SO'</u> Feet | SO TOO Feet | 3 | 0 | \bigcirc | 0 | O | 15 | 0 | 0 | 0 | 0 | |
| 100 Yards | NE | 4 | 0 | D | 0 | O | 16 | 0 | 0 | 0 | 0 | |
| Description of Plume (stack exit only) | Coning Europeation | 5 | 0 | 0 | n | 0 | 17 | D | 0 | D | 2 | |
| Emission Color Plume Type | | | ~ | | | | · · · · · · · · · · · · · · · · · · · | <u> </u> | <u> </u> | | | |
| | nuous 🗆 Fugitive 🕅 Intermittent | 6 | 0 | 0 | D | Ô | 18 | 0 | 0 | 0 | 0 | |
| Water Droplets Present? | plume is 🛛 Attached 🗍 Detached | 7 | 0 | 0 | D | 0 | 19 | 0 | 0 | 0 | 0 | |
| At what point in the plume was opacity | determined? | 8 | 0 | 0 | Ò | 0 | 20 | 0 | 5 | 0 | | |
| Describe Background (I.e. bige sky, tree | s, etc.) | | | 1 | | Ň | 24 | | | | | |
| Background Color | Sky Conditions | | | | | | | 10 | 0 | 0 | 0 | |
| white Geey, Blue | on (Leafrom North to South) | 10 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | Ø | |
| mind speed / mph | sw T - | -11 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | Ò | 0 | |
| Ambh emperature Wet Temper 10.5 % 5 | ature Relative Humidity 8 % | 12 | 0 | 0 | 0 | 40 | -24 | 0 | 0 | 0 | 0 | |
| COMMENTS: | | Average C | pacity | | . / | 125 | Range of | Opacl | ty Read | dings | | |
| | | | 5.1 | ΣS_{i} | 2000 | | Min.: | Q | M | ix.: / | 00 | |
| | | OBSERV | ER (pi | ease pr | int) | _ | | | | | | |
| | | Name: | ß | ein. | 17. | 11 | Tin | ile: / | DOI | at a | -1 | |
| | | L | - 10 | | <p< td=""><td>1K []</td><td></td><td><u> </u></td><td>re</td><td>au</td><td>1</td></p<> | 1K [] | | <u> </u> | re | au | 1 | |
| | | 10000 | | A | \mathcal{N} | | Date | 7/- | - N | 1 | | |
| | | Signature | | | x x | | | 20 | -0 | 7 | | |
| | | Signature | uan | | $\underline{\mathcal{N}}$ | | 10- | | | | | |
| | | Signature Organizat | hion BS | | \times | | Certifica 8- | tion Da | 1te 04 | / | | |
| Draw Arrow in Markhy | Blue | Signature Organizat U.f | Hon PS | PORT | | Pleas | Certifica 8- | tion Da | ollowi | / ing by | sketci | |
| Draw Arrow in North Direction | Blue | Signature Organizat | IM | PORT | | Pleas | Certifica 8- e indicate | tion Da 25- | ollowi | / ing by | sketci | |
| Draw Arrow in North Direction | Blue | Signature Organizati Ul f | In Im | PORT | | Pleas | Certifica 8- e indicate | tion Da | ollowi | / ing by | sketd | |
| Draw Arrow in North Direction | Blue | Signature Organizati U. f | IM | PORT | | Pleas | e indicate | tion Da 25- e the f | ollowi | ing by | sketci | |
| Draw Arrow in North Direction | Blue Sky | Signature Organizati U. f | IM | PORT | | Pleas | e indicate | tion Da 25- e the f | ollowi | ing by | skeid | |
| Draw Arrow in North Direction | Blue Sky | Signature Organizati U. f | IM | PORT | | Pleas | e indicate | tion Da 25- e the f ume Di in | nte OY ollowi | ng by | sketd | |
| Draw Arrow in North Direction | Blue Sky | Signature Organizati U. f | IM | PORT | | Pleas | e indicate | tion Da D D T the the f ume Di ume Di ume Di | ollowi | ing by | sketci | |
| Draw Arrow in North Direction | Blue Sky | Signature Organizati U. f | IM | PORT | | Pleas | e indicate | tion Da S the f ume Di in orth | ollowi rection | / ing by | skeid | |
| Draw Arrow in North Direction | Observer's | Signature Organizati U. f | IM | PORT / acki visible | | Pleas | e indicate B- B- B- B- B- B- B- B- B- B- B- B- B- | tion Da 2 5 | ollowi rection | / ing by | skeid | |
| Draw Arrow in North Direction | OURCE Observer's Position | Signature Organizati U. f | IM | PORT / acki visible Signat | | Pleas | e indicate e indicate Plu Su No ceipt of a observati | tion Da 2 5 | ollowi rection | ing by | skeid | |
| Draw Arrow in North Direction | OURCE Observer's Position | Signature Organizati U. f | IM | PORT / acki visible Signat | | Pleas | e indicate B- B- B- B- B- B- B- B- B- B- B- B- B- | tion Da D 5 | ollowi rection | ing by | sketa | |
| Draw Arrow in North Direction | OURCE Observer's Position | Signature Organizati UL f | IM | PORT / acki visible Signat Title: | | Pleas | e indicate B- B- B- B- B- B- B- B- B- B- B- B- B- | tion Da S tion D | ollowi rection | ing by | skete | |

EID 069 Issued 1/85

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| 5 t | • | | | | DBSERV | ATION | DATE | U | ST | ART TIM | E | STOP | TIME | | | |
|---|---------|-----------------|---------------------|--------------------------|--|-------|------|------|----------|-------------|----------------|-----------|------|-------|--|--|
| 0007100 | | | | | | - 24 | | 7 | <u> </u> | N 50c/ | fm | <u>∞:</u> | (5 4 | m | | |
| DEATION | | | | | Min. | 0 | 15 | 30 | 45 | Min. | 0 | 15 | 30 | 45 | | |
| y ⊳ of Source | | | Type of Con | itrol Equ)pment | 1 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | | |
| | | | | | 2 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | | |
| Height Above Ground | Leve | Feet | Height Relat | live to Observer Feet | 3 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | | |
| Histance from Observe | er | Yards | Direction fro | om Observer | 4 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | | |
| | | | | | 5 | 0 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | | |
| i mission Color | | Plume Type | nuous 🗖 Fu | igitive 🗖 Intermittent | 6 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | O | 0 | | |
| NO YES | 7 | 0 | 0 | 0 | 0 | - 19 | 0 | 0 | 0 | 0 | | | | | | |
| At what point in the p | olų m | e was opacity | determined? | | 8 | 0 | 0 | Ö | 0 | 20 | 0 | 0 | 0 | 0 | | |
| Describe Background | (1.e.) | blue \$KY, tree | s, etc.) | | 9 | 0 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | | |
| Background Color | | - | Sky Condi ti | ons | 10 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | | |
| m | ph | | | 1 | 11 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | D | | |
| Amb., Temperature • | e F | Wet Temper | ature +F | Relative Humidity % | 12 | 0 | 0 | 0 | 0 | ·24 | 0 | 0 | 0 | 0 | | |
| COMMENTS: | | - | | | Average Opacity Range of Opacity Readings Min.: Max.; | | | | | | | | | | | |
| | | | | | OBSERVER (please print) Name: BRIAN ORTIE Title: Operator | | | | | | | | | | | |
| | | | | | Signature | i.an | | R | _ | Date 10- | -26- | 04 | - | | | |
| | | | | | Organizat U/ | | | | | Certificat | 10n Da 25-6 | 1• 24 | | | | |
| Drew Arrow in | | | | | | ІМ | PORT | ANT: | Pleas | e indicate | the fo | ollowi | naby | sketc | | |

RECORD OF VISUAL DETERMINATION OF OPACITY





| OCATION Type of Source Type of Control Equipment | Sec | I | | | | . <u> </u> | <u>n</u> | | 15 p | - |
|--|-----------------|---------|-----------------|--------------|------|-------------------|----------------|---------------|---------------|----------|
| Type of Source Type of Control Equipment | Min. | 0 | 15 | 30 | 45 | Sec Min. | 0 | 15 | 30 | 45 |
| | 1 | 0 | \mathcal{O} | 0 | 0 | 13 | | | | |
| Describe Emission Point (top 01 stack, etc.) | 2 | 0 | 0 | 0 | 0 | 14 | | | | |
| Height Above Ground Level Heigh't Relative to Observer Feet Feet | 3 | 0 | 0 | 0 | 0 | 15 | | | | <u> </u> |
| Distance from Observer Direction from Observer Yards Yards | 4 | 0 | 0 | 0 | 0 | 16 | | | | |
| Corping Fanning Coning Fumigation | 5 | 0 | 0 | 0 | 0 | 17 | | | | |
| Emission Color Plume Type Continuous Fugitive Intermittent | 6 | 0 | 0 | 0 | 0 | 18 | | | | |
| Water Droplets Present? | 7 | 0 | 0 | 0 | 0 | • 19 | | | | |
| It what point in the plume was opacity determined? | 8 | 40 | 25 | 5 | 0 | 20 | | | | |
| Describe Background (I.e. blue sky, trees, etc.) | 9 | | | | | 21 | | | ŀ | |
| Background Color Sky Conditions | 10 | | | | | 22 | | | | |
| Wind Direction (i.e. Itom North to South) mph | 11 | | | | | 23 | | | | |
| Ambient Temperature Wet Temperature Relative Humidity •F F % | 12 | | | | | -24 | | | | <u> </u> |
| | Average (| opacity | , | | | Range of Min.: | Öpaci | ty Read Ma | dings Ix.: | |
| | DBSERV Name: | ER (pi | lease pr 1AN | int) / (. |)e1. | < Tit | le: <i>(</i>) | / lla | for | |
| | Highature | liar | l | H | | Date 10- | 26. | 04 | / | |
| | Urganiza Ur | 115 | 5 | | | 8-0 | 25- | 0 C/ | / | |

Draw Arrow in North Direction



| SC EFILH - HOD' | OBSERVATION/DATE | | | | | ART TIM | E | STOP | TIME | |
|---|------------------|--------------|-------------------|-----|----|-------------------|--------|--------------|----------------|----|
| Fuel 01 #2 # 3 Doile | 11 | 1/3 | 04 | | | 0:17 | | 11: | 15 | |
| LOCATION TA3 SM ZZ | Sec. Min. | 0 | 15 | 30 | 45 | Sec. Min. | 0 | 15 | 30 | 45 |
| Type of Source Fuel OIL Type of Control Equipment | 1 | 0 | Ð | 0 | 0 | 13 | 0 | 0 | | |
| Describe Emission Point (top of stack, etc.) FOOL Above Stack | 2 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | |
| Height Above Ground Level Height Relative to Observer | 3 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 |
| Distance from Observer 100 Yards NW | 4 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 0 |
| Description of Plume (stack exit only) Lotting Trapping Looping Fanning Coning Fumigation | 5 | 0 | 0 | 0 | 0 | 17 * | 0 | 0 | 0 | 0 |
| Emission Color Plume Type Back Dontinuous Fugitive Hintermittent | 6 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 0 |
| Water Droplets Present? | 7 | 0 | D | 0 | 0 | - 19 | 0 | 0 | 0 | 0 |
| At what point in the plume was opacity determined? 1 Foot Above Stack | 8 | D | 0 | Ð | 0 | 20 | 0 | 0 | 0 | 0 |
| Describe Background (I.e. blue sky, trees, etc.) Blue SKIES | 9 | 0 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 0 |
| Background Color Blue Sky Conditions | 10 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 |
| <u>3-5</u> mph NW | 11 | 0 | 0 | 0 | 0 | 23 * | 0 | 0 | 0 | 0 |
| Ambient Temperature Wet Temperature Relative Humidity 3.8 4 - 9.4 4 2 328 | 12 | 0 | 0 | 0 | 0 | ·24 | 0 | 0 | 0 | 0 |
| 10:17 First Burner | Average O | 5.3 | 2: | 5 | | Range of Min.: | Opacit | y Read Me | lings x.: ク | 5 |
| 10:21 Second Danner 10:30 Lostlomner | OBSERV Name: | ER (p) Be | ease pri IAN (| Det | 12 | Tit | le: () | per | 777 | r |
| 10:30 DUNNE Nº - | Signature | - Juan | Λ | X | | Date // | -3 | -0 C | 1 | |
| | Organizat U | PP | 5 | | | Certificat | Ion Da | 10 • 2 ~ | / | |

Draw Arrow in



IMPORTANT: Please indicate the following by sketch:



| l acknowledge receipt of a copy of th ese visible emissions observations. | |
|---|--|
| Signature: | |
| Title: | |
| Date: | |

page-2/3

| 500e | | OBSERV | ATION | DATE | a// | ST | ART TIM | E | STOPTIME | | |
|---|-------------------|--------------|--------|--------|-----|-----|-------------------|---------|----------|---------------|----|
| <i>i</i> | | -100 | | - 3 -0 | | | 10:1 | | 11 | :/5 | |
| LOCATION | | Sec. Min. | 0 | 15 | 30 | 45 | Sec. Min. | 0 | 15 | 30 | 45 |
| Type of Source Type of Control Equip | ment | 1 | 0 | 0 | 0 | 0 | 13 | 0 | อ | 0 | 0 |
| Describe Emission Point (top of stack, etc.) | | 2 | 0 | 0 | 0 | ð | 14 | 0 | 0 | 0 | 5 |
| Height Above Ground Level Height Relative to Obs Feet | erver Feet | З | 0 | 0 | 0 | 0 | 15 | 5 | 5 | 5 | 5 |
| Distance from Observer Direction from Observe Yards | er | 4 | 0 | 0 | 0 | O | 16 | 5 | 5 | 0 | 0 |
| Description of Plume (stack exit only) Lofting Looping Fanning Coning Fumig | Trapping Trapping | 5 | 0 | 0 | 0 | 0 | 17 | 0 | D | D | 0 |
| Emission Color Plume Type | Intermittent | 6 | 0 | 0 | 0 | 0 | 18 | 0 | ତ | 0 | 0 |
| Water Droplets Present? | Detached | 7 | 0 | 0 | 0 | Ο | · 19 | 0 | 0 | 0 | 0 |
| At what point in the plume was opacity determined? | | 8 | 0 | 0 | Ò | 0 | 20 | 0 | 0 | 0 | 0 |
| Describe Background (i.e. blue sky, trees, etc.) | | 9 | 0 | 0 | 0 | 0 | 21 | 0 | Ø | 0 | 0 |
| Background Color Sky Conditions | | 10 | 0 | 0 | Ø | 0 | 22 | 0 | 0 | 0 | 0 |
| Wir sec Wind Direction (i.e. from North to S | south) | 11 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 |
| Amblent Temperature Wet Temperature Relative | Humidity 3/ % | 12 | 0 | 0 | 0 | 0 | ·24 | 0 | 0 | 0 | 0 |
| COMMENTS: 10: 52 Turnel of Natural gas on | Fuel only | Average C | pacity | | | | Range of Min.: | Opeci | iy Read | lings IX.1 | |
| { | , | Name: | B | 14~ | | 471 | 2 Tit | ie: 0 | PUL | 711 | |
| • | | | ua | U | Ø | | | 1-3 | -0 | Ý | |
| | | Organizat | UPA | 25 | | | Certificat | 1100 Da | -25-0 | 04 | / |

RECORD OF VISUAL DETERMINATION OF OPACITY





373

| SOUnce 1 | | | OBSERVATION DATE | | | | | | STOP TIME | | | |
|---|--|-----------------|------------------|------------------|-------|------------|-------------------|--------|-----------|----------------|-------------|--|
| OCATION | | Sec. Min. | 0 | 15 | 30 | 45 | Sec. Min. | 0 | 15 | 30 | 45 | |
| Type of Source | Type of Control Equipment | 1 | 0 | \bigcirc | 0 | 0 | 13 | | | | | |
| Describe Emission Point (top of stack, et | IC) | 2 | 0 | D | D | 0 | 14 | | | | | |
| Height Above Ground Level Feet | Height Relative to Observer Feet | 3 | 0 | 0 | 0 | 0 | 15 | | | | . • | |
| Distance from Observer Yards | Direction from Observer | 4 | z | 5 | 5 | 5 | 16 | | | | | |
| Description of Plume (stack exit only) | Lofting Trapping Coning Fumigation | 5 | 10 | 20 | 20 | 75 | 17 | | | | | |
| Emission Color Plume Type | wous 🗖 Fugitive 🗋 Intermittent | 6 | 50 | 10 | 5 | 5 | 18 | | | | | |
| Water Droplets Present? | olume is 🔲 Attached 🗋 Detached | 7 | 0 | 0 | 0 | 0 | - 19 | | | | | |
| At what point in the plume was opacity | determined? | 8 | 0 | 0 | 0 | 0 | 20 | | | | | |
| Describe Background (i.e. blue sky, trees | i, etc.) | * 9 | Ø | 0 | D | 0 | 2 | | | | | |
| Beckground Colof | Sky Condition\$ | 10 | 0 | 0 | 0 | 0 | 22 | | L. | | 1 | |
| WI/ tec 'Wind Directi mph | on (in.from North Io South) | 11 | | | | | 23 | | | | | |
| Amblent Temperature Wet Temperature | 8 of C Relative Humidity | 12 | l 4 | | ı | ۱ ۸ | 24 | I L | | ۱ ۱ | ' + | |
| 141 6 ON AL | to. | Average C | pacity | | | | Range of Min.: | | ty Read | sings x.: 7 | <u>></u> | |
| 11:15 DFF D | NZ OIL IO DA S | OBSERV Name: | ER (p) | ease pr رچر ب | | 27 | 72_ fh | k: 6 | Pel | ŢД | <u> </u> | |
| [[| - | Signatur | Rias | ر | Ø | 8 | Date //- | 3- | 09 | | | |
| | Organizat | U | np s | 5 | | Certificat | | 5-2 | 24 | | | |

Draw Arrow in North Direction

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IMPORTANT: Please indicate the following by sketch:-

.Sun

North

I acknowledge receipt of a copy of these

visible emissions observations.

Signature: _

Title: _

Date: ___

Plume Direction

Press and

(

| | | | | | | | • • • • | | | | | | |
|-----------------------------------|-----------------|---------------------------------|-----------------------|---|---|---------------------------------|--|---|---|--|---|--|--------------|
| JURCE A 2 2 | | 0 | DI 1 | OBSERV | ATION | DATI | | ST | ART TIM | | STOP | TIME | |
| 7/2-2- | <u> </u> | 17051 | Tim | 2/2 | 2 8/ | 109 | 4 | | 11:5 | | 12 | 8 | \mathbb{Z} |
| (or Alen | 70\$ | , 4 A | · · · · | | Ó | 15 | 30 | 45- | Min | 0 | 15 | 30 | .45 |
| Type of Source. | N | Type of Car | trol Equipment | 1 | D | 7 | 6 | 0 | 13 | | | | |
| Describe Emission Point (top of ; | 7 112CH, 1 | te.)) /) | AL A | | 12 | | 6 | | | | | | |
| Lindente Albane Graninet i anni | 2/ | | Toll | 2 | 0 | \mathcal{D} | 9 | υ | 14 | | | | |
| 70 | et ' | Landlut Longt | 7 Drest | 3 | D | D. | 0 | D: | 15 | | | | · |
| Distance from Observer | rde | | N. 620 3 | • 4 | D | 0 | 8 | σ | , 16 | | | · | |
| Description of Plume (stack with | only) | Ala | fting 🔲 Trapping | 5 | 0 | X | 0 | 2 | 17 | | | | |
| Emission Color Plum | • Type | Coning | CJ rumigetion | | | 6 | | | | | | • | |
| Clear Reserver | Contin | NOUS G Fu | gitive 🖾 Intermittent | | 0 | | 0 | 0 | 18 \ | | | | |
| | | plume is | Attached C Detached | 7 | P | 6 | o | 0 | 19 | | | | |
| 1º 2600 - T | 27 | Ste | ell | 8 | Ð | 0 | 0 | O. | 20 · | | | | |
| Cascribe Background (La. blue si | y, tree | 1000 2000 | Les . | 9 | 0 | 0 | 0 | 6 | - 21 | | | | |
| Background Color | | Sky Conditio | . l. | 10 | 0 | D | 6 | 0 | 22 | | ÷ | | |
| And Speed Wind | Oirecti | on (LA. from) | North We South) | 4.4 | - | | | _ | | | | | |
| ablent Temperature Wet 1 | >.) famboar | | - CCZ-4 | | | | | | 23 | | | ·· | |
| 15.2 ×c | 6. | 4 20 | 56, | 12 | | | | | 24 | | | | |
| COMMENTS: | 17 | | 3 1=77 | Airerage C | Pecity | 13 | 25 | | Range of | Opecit | y Read | | - |
| 1. 77 | | | | | 13-(a) | | let) | | 1 | <u> </u> | | <u> </u> | |
| Burner # | A | sy p | | OBSERV | - A | | <u>^ </u> | v - | ¥4 | 2 | • | _ | |
| Burner # | ~ | 57 0 | | Name | D | لمنع | <u>P</u> | ent | Data | <u>n ca</u> | <u>, </u> | JC. | |
| Burner # | <u> </u> | 07 0 | | | Ď | enter de la | <u>P</u> L. | en la | Deta 9 | 1/2 8 | 1. | <u>)</u> с. 4 | |
| Burner # | ~ | 07 P | | | diama di | 12-2 0/9 50 | <u>P</u> L. | en le | Deta Deta Sertificiat | 128 128 | | <u>)</u> ≠ ≠ | |
| Burner H | ~ | • <i>27</i> | | Constant Secondary Corruntizat 24,52 | | DA SA | <u> </u> | R | Data Data 9 Certificate | 120 120 120 120 | |) c 4 4 | |
| Drew Arrow in North Direction | ~ | | | Anna Sanntar Crymins 450 | | DA Sa | ANT: | Please | Data Data Srtinda indicate | | | <u>↓</u> ↓ ↓ | ketch |
| Draw Arrow in North Direction | | | | Name Stanstury Organization 24.52 | 10 10 10 10 10 10 10 10 10 10 10 10 10 1 | SA PORT | <u>) </u> / ANT: | Please | Data Data 9 Cartificate indicate | ter co | | ∑ <u>+</u> ≠ ≠ | ketch |
| Barace # | Ē | | | | | SA PORT | <u> </u> | Plana | Data Data 9 Cartindat indicate | ter Contraction Contractic | | <u>→</u> 4 4 4 18 by s | ketch |
| Draw Arrow in North Direction | | | | Name Arson | | SA PORT | | Plane C | Deta 9 Cartinati indicata Pau Sa | the Contract of the first of th | | <u>+</u> + + | ketch |
| Barace # | | | | N ST | 100 100 100 100 100 100 100 100 100 100 | SA PORT | | | Deta Deta 9 Certinda a Indicasta Plu Su Na | tan Co Soon Da Storn Da The for me Dim n | | <u>√</u> 4 4 4 1 1 1 1 1 1 1 1 | ketch |
| Draw Arrow in North Direction | | | | No. 45 | | Sa PORT | ANT: | | Deria Deria 9 Construction indication Plu Sua Nac | the for the for me Offer n | | Jc. 4 4 4 4 4 4 4 4 | ketch |
| Burner # | | | | N N N N N N N N N N N N N N N N N N N | | S.C. | | | Deta Deta 9 Certineta e indicata Pau Sua Na Na | the for the for me Dire | | <u>ノ</u> チ デ 昭 by s | ketch |
| Drew Arrow in North Direction | | | - | N ASS | | I ackn | ANT: | | Deta Deta 9 Cortineta indicata part Su Na Na Na Na | the contract of the first of th | t | <i>→ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓</i> | ketch |
| Burner # | | Observer's Positi | | No. 45 | | I ackn Viable Signer | ANT: | | Deta Deta 9 Controlat indicata indicata Plu Sus Na Na | the contract of the former of | the section | | |
| Barace # | | Claurur's Paint | | N AND COL |))) | Lesse PAS Sance Signer | ANT: | Please Please C C C C C C C C C C C C C C C C C C C | Deta Deta 9 Cartinda e Indicasta e Indicasta Plu Sua Na Na Na | the copy of the first of the fi | t | | ketch: |
| Burner H | | Observer's Road | | N N N N N N N N N N N N N N N N N N N | | I ackn Viable Signet | ANT: | | Deta Deta 9 Controlat indicata indicata Plu Sus Na Na | the tree of the former of the | t | | |
| Burace # | | Claurer's Runca Claurer's | | N Det |) | I actor Signer | ANT: | | Caratania Caratania indicata pau Su Na Na Na | the contract of the first of th | t | | ketch: |

Meteorology and Air Quality Los Alamos National Laboratory

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| - How Bar | | | Envi | nome | ntel line | | ment | Divis | ion | | | | | | | |
|---------------------------------|-----------------|----------------------|-------------------|---------|------------|---------------|--------------------|-----------------------------------|---------------------|---------------------------|--------------|---------|--------|-------|-------------|-----|
| | • | R | ECORD OF V | /ISUA | LDET | ERMI | NAT | 10N | OF | OPACIT | ry - | | | | | • |
| Fill evening | | | | | | | | , | | | | | | | | |
| JURCE TOZ. | 2.2. | Price | n Pl | 1 | OBSERV | ATION | PAT | Ý | 51 | ART TIM | | STOP | TIME | ~ | 10 | :20 |
| LOCATION | 11 | OW | 1 or | ~ | K¥ | | $\frac{1}{2}$ | É | 1 | A | <u> </u> | 42 | / | | 12. | |
| Then at Saura | 110 | 205 | 49 | | um. | 0 | 15 | 30 | 45 | Min | 0 | 15 | 30 | 45 | l | |
| Toway Pla | t | K/ | A A | | 1 | 0 | 15 | 0 | $\boldsymbol{\rho}$ | 13 | | | | | | |
| Describe Emission Point (t | op of stack, e | | | | 2 | 5 | 3 | 2 | 0 | •• | | | | | | |
| Height Above Ground Law | <u></u> | Height Rela | the to Observer | | + | K | | $\frac{0}{6}$ | 5 | | | | | | | |
| 2 | 2) Feet | | 701 | feet | - 3 | \Box | 0. | 0 | O | 15 | | | | | ļ | |
| | D Yerde | | Y. C | | 4 | 0 | 5 | Ð | 0 | , 16 | | | · | • | | |
| Description of Plume (stat | k exit only) | A C | rting 🗌 Trup | ping | 5 | 5 | E | F | 52 | 17 | - | | | | | |
| Emission Color | Pluse Type | Caning | Li Pemigstion | | | F- | | | | | | | | | | |
| Clocy Water Ormilate Brannet | Contin | 0000 D Fu | gitive 🗆 Intermit | tenit . | 6 | Ê | Ľ | $\underline{\textit{U}}$ | 0 | 18 ' | | | | | | |
| | 'ES, dropies p | kume is 🖸 | Attached C Deta | checi | 7 | Ð | D | 0 | \bigcirc | 19 | | | | | | |
| At what point in the plum | was opecity | determined? | | • | 8 | 5 | 7 | | 3 | 20 | | • | | | | |
| Cescribe Background (Le. 1 | the sigy, trees | , etc.) | | | | | 6 | | | | | | | | | |
| Background Caler | 1 17 | Sky Conditi | | · | | \mathcal{O} | 20 | $\frac{\mathcal{O}}{\mathcal{O}}$ | | . 21 | • | | | | , | |
| 2x. Dray | | 2/0 | udy | | 10 | \mathcal{O} | \mathcal{O} | Ø | \mathcal{O} | 22 | • | | | | | |
| lo-15 mph | Wind Olrection | an (Le. from) X-C | North to South) | A | 11 | | | | | 23 | | | | • | | |
| mient Temperature | Wet Tempera | ture | Relative Hamidity | ! | 12 | | | · · | | | | | | _ | | |
| COMMENTS | <u> </u> | <u>· / † č</u> | | * | Aiverage C | pecity | | | | 24 Range of | Osect | y Read | | | | |
| purne, | ~ H/ | n | 00,00- | | 0.000 | | C | | | Min.t | <u> </u> | Me | L: < | 2 | | |
| 77 + 1 | Poto | d D | u/ntv | | Neme | D. | - <u>-</u> | <u>D/</u> | la | J-TH | × 2 | B | Zar | , \$ | - `` 9,~ | |
| | , | - | | | Statut | - | 0 | 1U | A | | ka a | 7 | 24 | | - | |
| 90 024 | _ | | | | Ormation | 2 | <u> </u> | 10 | ~ | Cartificat | ing De | | | | | |
| Draw Arrow in | | | | | 172 | | 20 | 80 | | - 27 | 0 | 4 | | | | |
| North Direction | | | | | | אוו ה^ | ORT | ANT: | Please | indicate | the fo | llowin | g by s | katch | : | |
| (P) | | | _ | | r (| \mathcal{I} | ۲. | C | | 7 | | | | | | |
| | FI | F | | | | C | | | | Plu | ne Din | ction | | | | |
| | (** | | | C | Ŷ | | | <u>``(</u> | $)^{}$ | Sur | | | | | | |
| · · · · | L | · · · · · · | | | T | | | - | • | Maa | - | | | | | |
| | | | | | • | | | | | | - | | | | | |
| | | , | • | | | | | | | | | - | | | | |
| | | Observer's | | • | | | r sekni visible | owieci emias | je reci lone ci | mpt of a.c beer vector | xopy o ML | t then | • | | | |
| r | | Posi | ion . | | | | H | | | | | | | | | |
| | / | | \sim | | | ' | | | | | | <u></u> | | - | | |
| | | | | | | ' | l'itilit . | | <u></u> | | | | | - | | |
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| Environme RECORD OF VISUA | ntal ling L'DETE | rover ERM1 | nent NAT | Divis ION | ion OF | OPACIT | Y | | | |
|---|---------------------|---------------|----------------------------|--------------------------|-----------------------------|------------------------|---------|--------|---------|--------|
| NURCE 143.22 Prover Plant | COSSERV 9/- | ATION | - | 4 | ST | ART TIM | r | STOP | TIME | 32 |
| LOCATION Alomos AM | | 0' | 15 | 30 | 45 | Sec. | 0 | 15 | 30 | .45 |
| Type of Source. PS2 n Port Type of Confeet Routoment | 1 | 0 | 0 | D | 0 | 13 | | | | |
| Describe Emission Polar (top of stack, etc.) | 2 | 0 | Ò | 0 | 0 | 14 | | | | |
| Height Above Ground Lave Height Relative to Observer | 3 | C | 50 | 0 | 0: | 15 | | | | - |
| Distance from Observer) 20 Yards 7 2 N.W.J | . 4 | D | 0 | 8 | 0 | , 16 | | | | |
| Description of Plume (stack with only) | 5 | 0 | 0 | Ò | 0 | 17 | | | | - |
| Enjection Color Plugne Type | 6 | Ö | Ð | 0 | 0 | 18 ' | | · | | |
| Water Oropiets Present? | 7 | Õ | D | D | D | 19 | | | | |
| Ad write point in the plane was assority determined? | 8 | 0 | ズ | $\overline{\mathcal{O}}$ | V | 20 | | | | |
| Congribe Background (he. blue sky, tress, etc.) | 9 | Ø | D | D | 0 | . 21 | | | | |
| Beckground Color Sky Constitutes | 10 | 0 | D | D | 0 | 22 | | · | | |
| Wind Speed Wind Okrection (La. then North to Soluth) | 11 | | | | | 23 | | | | |
| Abient Temperature Wet Temperature Relative Humidity | 12 | | | | | 24 | | | | |
| COMMENTS. | Aiverage | pacity | Ċ | Ð | | Range of Min.: | | y Read | | > |
| Relight of burner | | ER (M | | | Re | ale The | n 3 | - | 5 | 2. |
| on Boiker Hr | Stenature | - 1 | DA | 2 | Į, | Casta | 5 | Ze | × , | |
| | Corganization | | 150 | n | / | Caruficat | 2 | 34 | £ | |
| Draw Arrow in North Direction | 1 | IM | PORT | ANT: | Pleas | indicate | the fe | lowi | ng by s | sketci |
| (T) | - (| \sum | | C | بي م | | | | | |
| | \tilde{Q} | ١ | $\boldsymbol{\lambda}_{1}$ | | | | nne Oir | notice | | |
| sounce | K | | | ્ | $\mathcal{I}_{\mathcal{I}}$ | Su | A | | | |
| | | | | | 1 | Na | nin. | | | |
| Position | | | l acim visible | owied emiss | ge rec lone d | nipt of a bearvatio | opy c | of the | • | |
| | | 1 | Signatu | | | | | | | |
| | | • | Ticles . | | | | | | | |
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| TE #1 Barlen | | | OBSERVATION DATE START TIME | | | | | | | STOPTIME | | | |
|--|---|--|--|--|---------------|---|--|---|--|---|--------------|--|--|
| LOCATION TA-3 SM-22 | 2 | Sec. Min. | 0 | 15 | 30 | 45 | Sec. Min. | 0 | 15 | 30 | 45 | | |
| Type of source FUEL OIL #2 | Type of Control Equipment | > 1 | 5 | 10 | 10 | 10 | 13 | 0 | 0 | 0 | 0 | | |
| Describe Emission Point (top of stack, et IFT Aboue #1 STA | ici) ick (WBST) | 2 | 0 | 0 | Ο. | Ø | 14 | 0 | 0 | 0 | 0 | | |
| Height Above Ground Level | Height Relative to Observer | 3 | 0 | 0 | 0 | 0 | 15 | 0 | O | \mathcal{O} | Ð | | |
| Distance from Observer | Direction from Observer North west | 4 | 0 | 0 | 0 | 0 | 16 | O | 0 | \mathcal{O} | 0 | | |
| Description of Plume (stack exit only) | Coning Fumigation | 5 | 0 | Ο | 0 | 5 | 17 | 0 | 0 | 0 | 0 | | |
| BLACK Contin |) uous 🛛 Fugitive 🖾 Intermittent | 6 | 5 | 0 | 5 | 0 | 18 | 0 | 0 | 0 | 0 | | |
| NO YES If YES, droplet p | nume is Attached Detached | 7 | 0 | 5 | 0 | 0 | - 19 | 0 | 0 | \mathcal{O} | 0 | | |
| 1FT Above STAC | / <u>C</u> | 8 | 0 | 0 | 0 m | 0 | 20 | 0 | 0 | 0 | 0 | | |
| Blue SKY Background Color | Sky Conditions | . 9 | 0 | 0 | 0 | O | 21 | 0 | 0 | 0 | 0 | | |
| Blue Wind Direction | on (i.e. from North to South). | 10 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | | |
| Amblent Temperature Wet Temperat | South TO North | 1.1 | \mathcal{O} | 0 | \mathcal{O} | 20 | 23 | 30 | 0 | 0 | 0 | | |
| 7.7 % - | | . · · | \mathcal{O} | \mathcal{O} | \mathcal{O} | | 67 | | | | \mathbf{O} | | |
| COMMENTS: | - 17 | Average O | pacity | 3- | 5 | | Range of | Opacit | y Read | ings | \sim | | |
| COMMENTS: 1ST BURNER O 7 NO 11 0 | N C 0894Z N C 0804 | Average C OBSERV Name: | ER (pl | , 37 | 15 Int) | | Range of Min.: (L Tit | Opacit | y Read Ma: V 772 300 | ings x.: / ec.T.n | O | | |
| COMMENTS: 1ST BURNER O ZNd 11 0 | N © 0¶4Z N © 0804 | Average O OBSERV Name: Signature | ER (pl | | | 2 | Range of Min.: (LL Thi Date | Opeciti Opeciti Ater le: co los/0 | y Read Mai N TR 3 pour 1 1 1 4 | ings x.: / e e | 0 nert | | |
| COMMENTSI 1ST BURNER O ZNO '' O | л © 0¶42 л © 0804 | Average O OBSERV Name: Signature Organizat | ER (pil | 37 20 20 20 | | 2 2) | Range of Min.: () Thi Date Certificat | Opaciti Opacit | y Read Mai 200 200 1 4 1 4 1 4 1 4 | ings x.: / ec.Tn e. | 0 | | |
| COMMENTS: 1 ST BURNER O Z Nd 11 0 Draw Arrow in North Direction | N C 08942 N C 0804 | Average O OBSERV Name: Signature Organizat | ER (pik | | ANT: |) Pleas | Range of Min.: Ut The Date Certificat B e indicate | Opeciti Opeciti Opeciti Opecitie Setter Sett | y Read Mai 2 772 2 00 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | sketch | | |
| COMMENTS: 1 ST BURNER O 2 Nd 11 0 Draw Arrow in North Direction | N & 09942 N & 0804 Blue 3ky | Average O OBSERV Name: Signature Organizat | Pacity ER (pite Jon K | SL | ANT: | Pleas | Range of Min.: UL Thi Date Certificat e indicate | Opacit | y Read Mai 200 1 200 1 4 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 | ings x.: / ec.Tro e - | sketch | | |
| COMMENTS: 1 ST BURNER O 2 Nd 11 0 Draw Arrow in North Direction CubaT Strack | ле 09942 ле 0804 Ввле Зку П | Average O OBSERV Name: Signature Organizat | Pacity ER (pic | ,37 | ANT: | Pleas | Range of Min.: Thi Date Certificat e indicate | Opecit Date 108/0 106 De the fo | y Read Ma: 200 1 200 1 30 1 50 1 50 1 50 1 50 1 50 1 50 1 | ings x.: / ec.Tr e · ng by : | sketch | | |
| COMMENTS: 1ST BURNER O ZND I' O Draw Arrow in North Direction Cubat Struck II Sc | N & 09942 N & 0804 Blue Sky | Average O OBSERV Name: Signature Organizat | In the second se | SL | ANT: | | Range of Min.: UL Titi Date Certificate E indicate Plu .Su No | Opacit Opacit () () () () () () () () () () () () () | y Read Ma 200 1 200 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 1 4 1 | ings x.: / ec. ng by : | sketch | | |
| COMMENTS: 1 ST BURNER O 2 Nd 11 0 Draw Arrow in North Direction Chart II Strack II Strack Strack | NE 08942 NE 0804 Blue 3ky | Average O OBSERV Name: Signature Organizat | | SL | ANT: | Please | Range of Min.: Thi Date Certificate e indicate Plu .Su No | opacit Ater 68/0 106,0a the forme Dir n rth | y Read Ma 200 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | ings x.: / ec. C. ng by | sketch | | |
| COMMENTS: 1 ST BURNER O 2 Nd 11 0 Draw Arrow in North Direction Chart II Strick II Sc | N & 09942 N & 0804 Blue Sky [] NURCE | Average O OBSERV Name: Signature Organizat | | Jase pri | ANT: | Please Please T Igered sions of | Range of Min.: Ut Tit Date Certificate E indicate Plu .Su No | opacit | y Read Ma 200 1 2 1 2 | Ings x.: / acJn C · ng by : se | sketch | | |
| COMMENTS: 1ST BURNER O ZNA 1' O Draw Arrow in North Direction Char 2rack II Sc | N & 09942 N & 0804 Blue Sky I NURCE | Average O OBSERV Name: Signature Organizat | | Jase provide state s | | Pleas | Range of Min.: Ut Thi Date Certificat e indicate Su Su No | opacit | y Read Ma 200 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | ngs x.: / acJn e · ng by : | sketch | | |
| COMMENTS: 1 ST BURNER O 2 Nd 11 0 Draw Arrow in North Direction Cubat Struck II Sc | N & OFF4Z N & OFF4Z N & OBOH Blue Sky Invect Position | Average O OBSERV Name: Signature Organizat | | I ackr visible Signetu | ANT: | Please Please f lgered sions of | Range of Min.: Ut Tit Date Certificate e indicate Plu .Su No | opaciti opa | y Read Ma 200 1 2 1 2 | ings x.: / acJn e · ng by : se | sketch | | |
| COMMENTS: 1ST BURNER O ZND 11 0 Draw Arrow in North Direction Chast School | NE 09942 NE 0804 Blue Blue Blue Blue Blue Blue Blue Blue | Average O OBSERV Name: Signature Organizat | | Jackr Visible Signett Dete: | ANT: | Pleas | Range of Min.: Tit Date Certificat e indicate Su Su No | opecition A 727 be the forme Direction of the forme | y Read Ma: 200 1 20 1 200 1 1 1 200 200 | ings x.: / acJn e · ng by : se | sketch | | |

EID 069 Issued 1/85

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RECORD OF VISUAL DETERMINATION OF OPACITY

| | | | | OBSERVATION DATE S | | | | | ART TIM | E | 5TOP | TIME | - |
|-----------------------------|---------------------|---------------|--------------------------|--------------------|---------|----------|---------------|---------------|----------------|--------|--------------|-------------|--------|
| | | | | Min. | 0 | 15 | 30 | 45 | Sec. Min. | 0 | 15 | 30 | 45 |
| Type of Source | | Type of Co | ntrol Equipment | 1 | 0 | 0 | 0 | Ö | 13 | | | | |
| | | | | 2 | 0 | 0 | 0. | 0 | 14 | | | | |
| Height Above Ground Lev | el F èe t | Helght Rela | tive lo Observer Feet | 3 | 0 | 0 | 0 | D | 15 | | | | · |
| Distance from Observer | Yards | Direction fr | om Observer | 4 | O | 0 | 0 | Ο | 16 | | | | |
| 🗖 Looping 🔹 🗍 Far | nning D | Coning | Fumigation | 5 | 0 | 0 | 0 | \mathcal{O} | 17 | | | | |
| Emission Color | Plume Type | NUOUS 🗆 FU | ugitive 🔲 Intermittent | 6 | 0 | 0 | 0 | 0 | 18 | | | | |
| Water Droplets Present? | ίES, droplet ι | plume is 🗖 | Attached 🖸 Detached | 7 | Ø | 0 | \mathcal{O} | 0 | · 19 | | | | ; [|
| At what point in the plume | e was opacity | determined? | | 8 | 0 | 0 | Ò | 0 | 20 | | | | |
| Describe Background (i.e. t | blue sky, treel | i, etc.) | | 9 | | | | | 21 | | | | |
| Background Color | | Sky Conditi | ons | 10 | | | | | 22 | | | | |
| Wind Speed mph | Wind Direction | on (I.e. from | North 10 South) | 11 | | | | | 23 | | | | |
| Äic Sient Temperature •F | Wet Temperi | iture •F | Relative Humidity | 12 | | | | | ·24 | | | | |
| COMMENTS: | | | | Average O | pacity | | | | Range of Min.: | Opacit | y Read Ma | ings k.: | |
| | | | | OBSERVI Name: | ER (plo | ease pri | nt) XTI | 2 | (e) Thi | ten | Theo | time | ス |
| | | | | Signature | X | Tel | Z | : | Date | 1/00 | 5/04 | · | • |
| | | | | Organizat | K | 52 | \sum | | Certificat | on Da | 104 | f. | |
| Draw Arrow in | | | | | IMI | PORT | ANT: | Please | e indicate | the fo | llowir | o by s | sketc |



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RECORD OF VISUAL DETERMINATION OF OPACITY

| Fuel oil SM26 | # 1 Boiler | OESERVI 12 | AT ION | DATE 0 C | / | 57 | ART TIM | e N | STOP | TIME | ¥M |
|--|----------------------------------|-----------------|--------|---------------|-------------|---------------|-------------------|--------|--------------|-------|---------------|
| LOCATION TA3 SMZZ | Power Plant | Sec Min. | 0 | 15 | 30 | 45 | Sec. Min. | 0 | 15 | 30 | 45 |
| Type of Source Fall Dil | Type of Control Equipment | ۱۸ | 0 | D | O | 0 | 13 | 0 | 0 | 0 | 0 |
| Describe Emission Point (100 of stack, et Foot Above Stac | kt | 2 | 0 | \mathcal{O} | 0 | 0 | 14 | 0 | 0 | 0 | 0 |
| Height Above Ground Level | Height Relative to Observer | З | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 |
| Distance from Observer | Direction from Observer | 4 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 0 |
| Description of Plume (stack exit only) | Coning D Fumigetion | £ | O | 5 | 5 | \mathcal{O} | 17 | 0 | 0 | 0 | 0 |
| Emission Color Plume Type Back Contin | nuous 🗆 Fugitive 🕅 Hintermittenz | 6 | 0 | 0 | 0 | D | 18 | 0 | 0 | 0 | 0 |
| Water Droplets Present? | olume is 🔲 Attached 🗔 Detached | 7 | 0 | 0 | D | \widehat{O} | 19 | 0 | 0 | 0 | 0 |
| At what point in the plume was opacity 1' FROM TOP | of Stack | 8 | 0 | 0 | Ò | O | 20 | 0 | 0 | 0 | 0 |
| Describe Eacheround I.e. Dive sky, free | di | 9 | 0 | 0 | 0 | O | 21 | 0 | 0 | 0 | 0 |
| Background Color Blue With Cloud | Sky/Congylons | 10 | 0 | 0 | 0 | Ø | 22 | 0 | 0 | Ø | 0 |
| Wind Speec Wind Direction | ion (i.e. from North 10/South) | 11 | 0 | 0 | 0 | D | 23 | 0 | 0 | 0 | \mathcal{O} |
| Amb. Temperature Wet Temper -/.5% -3 | ature Feiative Humidity | 12 | 0 | 0 | 0 | 0 | -24 | 0 | 0 | 0 | Ð |
| COMMENTS: 15+ BUNNA 6:101 | Am | Average C | pacity | 25 | % | > | Fange of Min.: | Opacit | y Read Me | x.: 5 | , |
| 2nl BUNNL 8:13 | 5AM | OBSERV Name: | ER (pi | SRH | Int) ダン・ | Or | .T.Z.Tin | le: (| | ats | 3 |
| 3rd Barner 8:11 | y Am | Signatore | ion | Q | 5 | : | Date | 2-9 | -04 | 1 | |
| stoppel 8:30 AM | Bila Problem | Organizat | LPP | 5 | | | Certificat | lon Da | 1e 04 | / | |



IMPORTANT: Please indicate the following by sketch:





Signature: _____

EID 085 Issued 1/8:

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| | | | • | | | | | | | | |
|--|--|------------------------|------------|---------------|---------------|---------------|-------------------|---------|---------------|--------------|-----|
| Fuel Oil Sm24 | #1 Boiler | OESERV 17 | - 9- | 0 L/ | / | 5T 9 | ART TIM | E | STOP 9. | TIME | |
| TA3 Sm22 | Power Plant | Sec. Min. | 0 | 15 | 30 | 45 | Sec Min. | 0 | 15 | 30 | 45 |
| Type of Source | Type of Control Equipment N/A | 11 | 0 | 25 | 50 | 50 | 13 | D | 0 | | |
| Describe Emission Point (100 of stack. 1 FOOT Above Sto | nc) cK | 2 | 5 | O | 0 | 0 | 14 | | | | |
| Height Above Ground Level 135 Feet | Height Relative to Observer | З | 0 | 0 | D | 0 | 15 | | | | · . |
| Distance from Observer | Direction from Observer | 4 | 0 | 0 | \mathcal{D} | 0 | 16 | | | | |
| Description of Plume (stack exit only) | Stating Drapping Coning Drumigation | 5 | 0 | 0 | 0 | 0 | 17 | | | | |
| Emission Color Plume Type BLACK D Conti | nuous 🗇 Fugitive 🕅 Intermittent | 6 | 0 | 0 | 0 | O | 18 | | | | |
| Water Dropiets Present? | plume is 🔲 Attached 🗍 Detached | 7 | 0 | 0 | D | 0 | - 19 | | | | |
| At what point in the plume was opacity ONE TOOT Above | Stuck | 8 | 0 | 0 | Ö | 0 | 20 | | | | |
| PARtly Cloud | s, etc.) | 9 | 0 | 0 | 0 | 0 | 21 | | | | |
| Blue with Gieg Cland | sky conditions 1421/4 Cloudy | ¥10 | D | 0 | 0 | \mathcal{O} | 22 | | | | |
| Wine 5 mph N | ion (i.e. from North to South) $/$ | 11 | 0 | \mathcal{O} | \mathcal{O} | 0 | 23 | | | | |
| Ambient Temperature Wet Temper | Shere Felative Humidity | 12 | 0 | 0 | 0 | 0 | -24 | | | | |
| COMMENTS: 9:04 Light 34B | ung | Average O | 3.2 | 25% | % | | Range of Min.: | | y Read Ma: | ings L: 5 | 0 |
| 9:15 Light 41 | OBSERV Name: | BL | Apd | | Tiz | - Titl | •: 0p | elat | o - | 3 | |
| , · · · | | Signature Date 12-9-04 | | | | | | 04 | , | | |
| | | Organizat | iori 15 | | | | Certificati | ion Dat | | 1 | |



IMPORTANT: Please indicate the following by sketch:



| Plume D | irection |
|---------|----------|
| Sun | |
| | |
| North | |

| l ackriowle visible emi | edge receipt of a copy of these scions observations. |
|----------------------------|---|
| Signature | |
| 1itie: | |
| Dete : | |

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"EID 069 Issued 1/88

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| Meteorol | ogy | and | Air | Quality |
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RRES-MAQ-307, R1 Attachment 2, page 1 of 1

| | | R | Environmo ECORD Of VISUA | ental Imp L DET | erova ERM | nent INAT | Divis 10N | ion OF | OPACI | ΓY | | | | | |
|----------------------------------|------------------------|-------------------|-----------------------------|---------------------|--------------------|--------------|--------------|------------------|--------------------|-------------|---------------|----------------|-------|--|--|
| JURCE | CESERVATION DATE ST | | | | | | STOP TIME | | | | | | | | |
| TA - JI | 350 | | | Set | 0 | 15 | 30 | 46 | Sec | 0 | 15 | 30 | 45 | | |
| Type of Source #2 FUEL | 01/_ | Type of Car BA | itral Equipment | 1 | 00 | 10 | m | 0 | 13 ⁻ | D | 5 | 0 | n | | |
| Describe Emission Point (1 | E SLA | ck | 1 | 2 | 0 | 10 | 0 | Ð | 14 | 0 | 0 | 0 | D | | |
| | Feet | | Den to Observer | 3 | D | 0 | 0 | 0 | 15 | D | D | œ. | D | | |
| 50 Description of Pluma (mar | Yerds | | UTL | 4 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | D. | 0 | | |
| Looping Fi | nning () Plume Type | Coning | Trapping Trapping | 5 | 0 | 0 | 0 | Ð | 17 | 0 | 0 | 0 | ٩ | | |
| Water Dropiets Present? | C Contin | uous 🖸 Fu | igitive Clatermittent | 6 | 0 | D | Ð | Ð | 18 ' | 0 | 0 | 0 | 0 | | |
| NO VES If | YES, droplet p | determined? | Attached Detached | 7 | Ø | 0 | Q | 0 | 19 | 0 | ٥ | o' | 0 | | |
| Cescribe Background (I.e. | TOD OT | Sta | ck | 8 | 0 | 0 | 0 | ଚ | 20 · | 0 | 0 | 0 | 0 | | |
| BLANK SH | (4 | Sky Congiti | 005 | 9 | 10 | D | Ö | 0 | 21 | 0 | 0 | 0 | 0 | | |
| BLue . | Wind Olrecti | CLA | North To South | 10 | 0 | a | ٥ | 0 | 22 | D | Ø | 0 | م | | |
| 5-10 mph | | the com | St Relative Humidity | 11 | 0 | 0 | ٥ | D | 23 | 20 | 10 | 0 | ٥ | | |
| 4.8 4C | -10 | . 40 | -73× | 12 | 0 | 0 | 0 | D | 24 | D | Ð | 0 | 0 | | |
| | | • | | OBSERV | ER, pi | 3 | , Z | 5 | Range of Min.: | Opecit O | y Read Ma: | 1.191 x.: / | 00 | | |
| CLOAR | _ Cox | As ban | 5 | Name: Myr Of Ovrito | | | | | Title: TA-21 tocom | | | | | | |
| | | | | Organizat | Certification Case | | | | | | | | | | |
| Draw Arrow in North Direction | | | | | IM | PORT | ANT: | Please | indicate | the fo | llowir | ng by : | ketch | | |
| w · ú | | | | | | | Ċ | | Ph | ımeDir | ection | | | | |
| | 50 | | | | | | <u>`</u> (| $\sum_{i=1}^{n}$ | Sui | n | | | | | |
| | | | | | | | | 1 | No | rm | | | | | |
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visible emissions observations.

Data: 12-20-04

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| Meteorology an Lor Alamos National | eteorology and Air QualityRRES-MAQ-307Alamos National LaboratoryAttachment 2, page 1 | | | | | | | | | | 07, F 1 of | R 1 f 1 | |
|---------------------------------------|--|--|------------------------------|---------|----------------------------|---------------------|------------------|---------------------|-------------------|----------|---------------|-------------------|--|
| VI: | SIBLE | E EMISSION OE Environm RECORD OF VISUA | BSEF nentalling AL DET | RV. | A T ment INAT | IOI Divis | NF sion OF | ORI opaci | И тү | | | | |
| JURCE | | | OBSERV | | | <u></u> | 57 | ART TIM | ¢. | STOP | TIME | [:] | |
| | | | 500 | | 15 | 30 | 45 | 246 | 0 | 15 | 270 | 45 | |
| Type of Source | ALLOU | Type of Control Equipments | Min. | + | | ~ | | Min. | | | 30 | . 40 | |
| Describe Emission Point f | top of stack | [| $\frac{1}{1}$ | 25 | 10 | 0 | Ø | 13 | 5 | 5 | 0 | 0 | |
| | | · · · · · | 2 | 0 | 2 | 0 | 0 | 14 | 5 | 5 | 0 | 5 | |
| Height Above Ground Lev | ni Feet | Height Relative to Observer Feet | 3 | 0 | 0 | 2 | 0 | 15 | 0 | 0 | 0 | 5 | |
| Distance from Observer | | Direction from Observer | 4 | | | | | 18 | | | | | |
| Description of Plume (sta | Terds ck exit only) | Lotting Trapping | + | 10 | | 0 | 0 | | 0 | | 10 | 0 | |
| 🗆 Looping 🔹 Fi | nning 🔲 | Coning Fumigation | 5 | 0 | 5 | 5 | 20 | 17 | 0 | 0 | 0 | 0 | |
| Criefston Color | Contin | uous 🖾 Fugitive 🖾 intermittent | 6 | 5 | D | D | 0 | 18 1 | 0 | Ó | 0 | 1 | |
| Water Droplets Present? | MRA deserves | | 7 | | E | - | | 19 | | | | | |
| At what point in the plum | rea, oropiet (19 was opacity | determined? | 8 | 2 | 0 | 9 | 0 | 20 | | 0 | | | |
| Describe Background (I.e. | blue sky _e tree | I, HIC.) | | | | | | 21 | | | | | |
| Background Color | · · · | Sky Conditions | | | 12 | | 0 | - 41 | <u>U</u> | 6 | 0 | P | |
| Nnd Speed | Wind Oirecti | ion (Le. from North" to South) | | 0 | 10 | 0 | 0 | 22 | 0 | p | 0 | 2 | |
| mph | | | 11 | 0 | 0 | 30 | 30 | 23 | a | lo | ia | D | |
| Indiana Temperature | - // | 2 v/c 30 % | 12 | b | 0 | 6 | 5 | 24 | 6 | 0 | 0 | 6 | |
| COMMENTS: | | | Average 1 | opacity | 2 | - | 625 | Range of | Opeci | ty Ann | dings | 30 | |
| • | • | | OBSER | | isase pr | int) / | | 1 | | | <u> </u> | <u> </u> | |
| | - | . U | Signatur | : J | will | цю | st | Data | ities TA=21 toRem | | | | |
| JAME AS | s Peev | zous kage | K | 4 | lip | / | | 12- | 12-20-04 | | | | |
| - | | | Organiza | SL | | | | Ceruitie | tion Di | い。 こと | 200 | J | |
| Oraw Arrow in | | | | IM | PORT | ANT: | Pleas | e indicate | the f | oilowi | ing by | sket | |
| North Direction | | | | | | | | ~ [`] | | | • | | |
| | | | | | | C | \sim | С Р | ume Di | rection | | | |
| \mathbf{O} | | | | | | Ń | 5- | - | | | | | |
| | . | OURCE | | | | 2 | <u> </u> | Su | IN | | | | |
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| | | | | | Lack | nowler | ige re | calot of a | COOV | of the | | | |
| | | Chaerver's Position | | | visible | e emis | sion | o Din verti | one | π# | | 1 | |
| / | | | | | Signat | auro: | <u>~ n</u> | <u>nin</u> | | <u>u</u> | Ed. | ez- | |
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PAGE 2 of 3 Cont. on NEXT PAGE

| Meteoronogy some car Quality Los Alamos Hationas Caporatory | R ttac | RRES-MAQ-307, R1 achment 2, page 1 of 1 | | | | | | | | | |
|---|-----------------------------|--|--------------|---|-------------|--------------------------|-------------------|------------|------------|-------|--|
| VISIELE EMISSION OB | SER | VA | A <i>TI</i> | ON | I F | ORI | Л | | | | |
| Environme RECORD OF VISUA | ental I mp L DETE | rovan ERMI | nent NATI | Divis ION | ion OF (| OPACIT | Ŷ | | | | |
| TURCE | OBSERV | ATION | 0 - 0 | | ST | ART TIM | L) | STOP | TIME 240 | > | |
| CONTINUATION REOM PAGE 2 | Sec. | 0 | 15 | 30 | 45 | Sec. Min. | . 0 | 15 | 30 | 45 | |
| Type of Source Type of Control Equipment | 1 | 0 | 0 | 0 | D | 13 | | | | r | |
| Describe Emission Point (top of stack, etc.) | 2 | 0 | 0 | 0 | Ð | 14 | | | | | |
| Height Above Ground Laver Height Relative to Observer Feet Feet | 3 | 0 | 0 | 0 | D | 15 | | | | | |
| Distance from Observer Yarda | 4 | 0 | 0 | 0 | Ð | 16 | | | | | |
| Description of Plume (stack exit only) Characteristics Coning Characteristics Coning Characteristics Coning Characteristics | 5 | 0 | 0 | 0 | 0 | 17 | | | | | |
| Emission Cator Plume Type Continuous D Fugitive D Intermittent | 6 | 0 | 0 | 0 | 0 | 18 \ | | | | | |
| Water Croplets Present? | 7 | Ó | 0 | 0 | 0 | 19 | | | | | |
| At what point in the plume was apacity determined? | 8 | 0 | 5 | 0 | 0 | 20 · | | | | | |
| Cescribe Background (I.e. Dive sky, trees, etc.) | 9 | 0 | 0 | 0 | 0 | 21 | <u>.</u> | <u>}</u> - | } | | |
| Background Color Sky Conditions | 10 | 0 | 0 | 0 | 0 | 22 | | | | | |
| Bind Speed Wind Olrection (1.4. from North'to South) | 11 | อ | 0 | 0 | 0 | 23 | | | · . | | |
| ADJent Temperature Wet Temperature Relative Humidity | 12 | 0 | D | 0 | 0 | 24 | | | | | |
| COMMENTS | Average C | opacity O | .17 | 25 Range of Opecity Readings Min.: O Max.: | | | | | | 5 | |
| En De Demails Page | OBSERV Name | | kal | Lou | 16 | Tit | Title: TA-21 form | | | | |
| DAME HS PREVIOUS TAYE | Signatur | | D | Data 2: | | | | 20-04 | | | |
| | KSL Certification Data | | | | | | | | 200 | 04 | |
| Brew Arrow in North Direction | | IM | PORT | ANT: | Pleas | e indicata | tha fi | ollowi | ng by | sket | |
| $\left(\begin{array}{c} \cdot \end{array} \right)$ | | | | C. | \sim | | | | | | |
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| Source | | | | Ĵ |) ≁ | Ju | | | | | |
| | | | | | I | | - 61 | | | | |
| | | ſ | l acki | nowie | ige rei | ceipt of e | сору | of the | 58 | | |
| Observer's Posician | | | visible | emis | sioper | O Dee rvatio / | one. I C | ł | 11 | , | |
| | | | Signat | | Ľ | mud | | an | <u>u</u> y | ¥ | |
| | | | Title: | Å | <u>. Tu</u> | NG X | (ph | -3 /A | T AN | VIT | |
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| Meteorology and Air Quality | , |
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| Los Alamos National Laboratory | |

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| FALM - OWNER | | | | | | | | | | | |
|---|-----------------------------|-----------|--------|--------------------------|-----|----------|----------|----------|----------|----------|----------|
| JURCE | | OBSERV | ATION | DAT | | 57 | ART TIM | E. | STOP | TIME | |
| BOILITE NO. 2 | | 12 | 2 | -0 | 1 | | 1545 | | 1 | 205 | _ |
| TA-21 Storm Alant | 5LAB 357 | Min. | 0 | 15 | 30 | 45 | Min. | . 0 | 15 | 30 | 45 |
| FI2 for oil BA | ntrol Equipment | 1 | Im | 20 | 0 | | 13 | D | 0 | 0 | 2 |
| Describe Emission Point (top of stack, etc.) | 1 | | | | | | | | <u> </u> | <u> </u> | |
| 4 FROM TOP of SEA | CK | 2 | 0 | D | 0 | 0 | 14 | 0 | 0 | 0 | D |
| Height Above Ground Level Height Relation | tive to Observer TO Feet | 3 | 0 | 0 | 0 | 6 | 15 | 0 | 0 | | |
| Distance from Observer Direction fr | rom Observer | 4 | D | D | 0 | 0 | 16 | 0 | 0 | 0 | |
| Osseription of Plume (stack exit only) | ofting C Trapping | 5 | 6 | 0 | | | 17 | 0 | | | |
| Emission Color Plume Type | | 6 | D | | ~ | | 18 1 | | | | |
| Water Dropieti Present? | ugitive La Intermittent | + | | 0 | 0 | 0 | | p | 0 | 0 | D |
| INO I YES If YES, droplet plume is C | Attached C Detached | 7 | 0 | 0 | Ø | 0 | 19 | 0 | 0 | D | 0 |
| 6 feen Top of Sta | ok | 8 | 0 | 0 | 0 | - | 20 · | D | | | 2 |
| CLOUDY SKY | | 9 | 0 | 8 | 6 | 0 | 21 | | | | |
| Background Calor Sky Coosit | ions | 10 | 0 | 0 | - | 2 | 22 | | | | |
| Wind Direction ().4. from 3-5 mph South Page | North to South) | 11 | 6 | 0 | | 2 | 23 | | | | |
| nbient Temperature Wet Temperature | Relative Humidity | 12 | 0 | 0 | 0 | 2 | 24 | | | · | |
| COMMENTS | | Average C | Dacity | $\overline{\mathcal{O}}$ | 2 | <u> </u> | Banes of | Onerti | L Baar | | L |
| | n ¹ | | | 3 | . l | ל | Min.: | D | Me | x.: / C | 100 |
| | Artinus | CREERV | "7 | | nt) | | | -7 | 22 | En. | - ma |
| Claudy / SNOW 4 Ce | WINTERS | Signatur | 14 | 1 | | UM | Cate | - // | - 21 | 107 | |
| | | L | 1 14 | J | | | 12. | 21 | -0' | / | |
| | | Ks | 2 | | | | Au | tion De | • • | 200 | 4 |



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| | Meteorology and Air Quality Los Alamos National Laboratory | | | | |] | RRES | MA | Q-3 | 07, F | 11 | | |
|---------|---|----------------------|--------|------------------|--------------|------------------|------------------------|---------------|---------|----------|--------|--|--|
| | VISIBLE EMISSION OF Environm RECORD OF VISUA | ental Imp AL DETI | RV/ | A T | Divis 10N | VF ion OF | OPACI | M TY | | | | | |
| | Bozlan NO. 3 | OBSERV | 125 | 210 | ý | 57 | 1425 | | STOP | TIME 55 | -] | | |
| | TA-21 RING 200 | See | _ | | 20 | 4 | Sec | | | | | | |
| | Type of Source Type of Control Equipment | <u>Min.</u> 1 | 0 | 130 | 50 | ~ | Min. 13 | 0 | 15 | 30 | 45 | | |
| | Cescribe Emission Point (top of stack, etc.) | 2 | 5 | 0 | 0 | 0 | 14 | Ð | 0 | 0 | 0 | | |
| | 40 Feet 40 Feet | 3 | 0 | | | 5 | 15 | 2 | | | | | |
| | Distance from Observer SD Yards WCSO | 4 | 0 | 0 | D | 0 | , 16 | 0 | 0 | D. | 0 | | |
| | Looping Finning Broning Fungetion | 5 | 10 | 10 | 10 | 18 | 17 | 0 | 3 | n | | | |
| | Water Credict Present? | 6 | 0 | D | n | D | 18 \ | 0 | 0 | 0 | 0 | | |
| | IZ NO YES If YES, droplet plume is Attached Deteched | 7 | 0 | 0 | 0 | ٥ | 19 | 0 | 0 | 0 | 0 | | |
| | 6 from top of Stroke | 8 | อ | 5 | 9 | 0 | 20 | | | | ~ | | |
| . (| Describe Background (I.e. blue sky, trous, etc.) | 9 | 0 | 0 | Ð | 0 | . 21 | | 0 | D | | | |
| | BRAY Constitions | 10 | 0 | 0 | 0. | 0 | 22 | | | | | | |
| | Mind Direction (I.a. form/North to South) | 11 | 0 | 0 | ð | 0 | 23 | | | | -1 | | |
| | Relative Humidity | 12 | 0 | 0 | 1 | 6 | 24 | | | | | | |
| | COMMENTAL | Average O | pacity | 4. | 62 | 5 | Range of | Opecit | y Reed | inge | | | |
| | | CREERVI | | ase pri | nt) / | لبصب | . 4 | | | | | | |
| | Mould Configuration | Signature | 17 | | <u>Y L</u> | ovr | Date Tit | le: // | 4.21 | 1 toesmo | | | |
| | | grane inter | | Ð | | | 12/22/04 | | | | | | |
| | | 130 | | | | | AA | 25 | 200 | 24 | | | |
| | North Direction | | IMF | PORT | ANT: | Please | indicate | the fo | llawin | g by s | ketch: | | |
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| | S NAA | | | | | | Plu | rne Oire | ction | | | | |
| | SOURCE | | | |) (| $\sum_{i=1}^{n}$ | Sui | 1 | | | | | |
| | | | | | 1 | | Nor | th | | | | | |
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| | Observer's | | | ackni visible | emissi | e /eci 0/18 0 | int of a. Servetion | copy o ns. | if thes | • | | | |
| | 7 POBLON | | | llenstu | | Tes | maral | E | | / 4 | | | |
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