

AIR EMISSION PERMIT NO. 03700016-003

IS ISSUED TO

Gopher Resource, LLC

GOPHER RESOURCE, LLC
3385 South Highway 149
Eagan, Dakota County, MN 55121

The emission units, control equipment and emission stacks at the stationary source authorized in this permit are as described in the Permit Applications Table:

This permit supersedes Air Emission Permit No. 03700016-002, and authorizes the Permittee to operate and modify the stationary source at the address listed above unless otherwise noted in Table A. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Any additions or changes to conditions incorporated into Minnesota's State Implementation Plan (SIP) under 40 CFR § 52.1220, designated "Title I: SIP for Lead" must go through the federal SIP approval process before becoming effective. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Unless otherwise indicated, all the Minnesota rules cited as the origin of the permit terms are incorporated into the SIP under 40 CFR § 52.1220, and as such as are enforceable by U.S. Environmental Protection Agency (EPA) Administrator or citizens under the Clean Air Act.

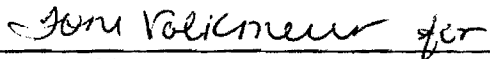
Permit Type: Federal; Pt 70/Incorporates Existing NSR Conditions; Title I SIP Conditions for Lead

Operating Permit Issue Date: June 29, 2010

Expiration Date: June 29, 2015

All Title I Conditions do not expire.

Each new or revised condition designated "Title I Condition: SIP for Lead" is not effective or enforceable until approved by EPA as a SIP revision under Title I of the Clean Air Act.



Don Smith, P.E., Manager
Air Quality Permits Section
Industrial Division

for Paul Eger
Commissioner
Minnesota Pollution Control Agency

TDD (for hearing and speech impaired only): (651) 282-5332

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Total Facility Operating Permit-Reissuance	2/16/2007	003

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NOTICE TO THE PERMITTEE:

Your stationary source may be subject to the requirements of the Minnesota Pollution Control Agency's (MPCA) solid waste, hazardous waste, and water quality programs. If you wish to obtain information on these programs, including information on obtaining any required permits, please contact the MPCA general information number at:

Metro Area	651-296-6300
Outside Metro Area	1-800-657-3864
TTY	651-282-5332

The rules governing these programs are contained in Minn. R. chs. 7000-7105. Written questions may be sent to: Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194.

Questions about this air emission permit or about air quality requirements can also be directed to the telephone numbers and address listed above.

PERMIT SHIELD:

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

FACILITY DESCRIPTION:

Gopher Resource, LLC (Gopher) owns and operates a secondary lead smelter facility located at 3385 South Highway 149, Eagan, Dakota County, Minnesota. The facility includes the following four major operations and miscellaneous sources: scrap pretreatment, smelting, refining and casting. Lead is recovered from lead-acid batteries, scrap from battery manufacturing plants, and miscellaneous lead bearing materials. The recovered lead is refined into alloys that are sold to a variety of customers. The main emissions from Gopher Resource Corp are Carbon Monoxide (CO); Particulate Matter (PM), including Particulate Matter less than 10 microns (PM₁₀) and Particulate Matter less than 2.5 microns (PM_{2.5}); Nitrogen Oxide (NO_x), Sulfur Dioxide (SO₂) and Lead.

Gopher is subject to the provisions of an administrative order, as amended on September 13, 1994. This was incorporated into Minnesota's State Implementation Plan (SIP), through the October 18, 1994, Federal Register. Gopher must comply with the provisions of the administrative order as a condition of compliance with the National Ambient Air Quality Standards (NAAQS) for lead.

This permit includes all of the provisions of the administrative order, and upon inclusion in Minnesota's SIP, will replace the administrative order.

On October 15, 2008, the NAAQS for lead was changed from 1.5 $\mu\text{g}/\text{m}^3$ to 0.15 $\mu\text{g}/\text{m}^3$. By October 15, 2009, The MPCA was required to submit to EPA, by October 15, 2009, a request for designation of areas of the State, including the area around Gopher, as either in attainment or nonattainment (or unclassifiable) with the lead NAAQS based on monitoring data for 2006 through 2008. EPA must now formally designate the area as either in attainment or nonattainment with the revised standard by October 15, 2010. If the designation is "nonattainment," MPCA must work with Gopher to develop a plan for achieving attainment with the revised standard. The State Implementation Plan is due 18 months after final designation by EPA. States with nonattainment areas will be required to attain the standard as 'expeditiously as practicable', but no later than five years from the effective date of the nonattainment designation (October 2015). Gopher is already taking steps toward meeting the revised standard; this permit incorporates two additional fabric filters that are used to collect additional fugitive lead emissions.

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Gopher Resource LLC
 Permit Number: 03700016 - 003

Table A contains limits and other requirements with which your facility must comply. The limits are located in the first column of the table (What To do). The limits can be emission limits or operational limits. This column also contains the actions that you must take and the records you must keep to show that you are complying with the limits. The second column of Table A (Why to do it) lists the regulatory basis for these limits. Appendices included as conditions of your permit are listed in Table A under total facility requirements.

Subject Item: Total Facility

What to do	Why to do it
STATE IMPLEMENTATION PLAN (SIP) REQUIREMENTS	hdr
<p>For any changes that affect any modeled parameter or lead emission rate documented in Appendix B, the Permittee shall demonstrate that the lead dispersion characteristics following the change will be equivalent to or better than the lead dispersion characteristics modeled using the parameters in Appendix B. The information submitted must include stacks, locations and dimensions of nearby buildings, the velocity and temperature of the gasses emitted, and the lead emission rates. If the information does not demonstrate equivalent or better dispersion characteristics, or if such a conclusion cannot be readily made, the Permittee must remodel. Any increase in lead emissions beyond modeled conditions associated with emission units in the SIP shall also be modeled. Modeling shall be conducted at the new predicted lead emission rates and stack parameters to determine the impact on the lead NAAQS. This requirement applies whether or not a permit amendment is required for the proposed change.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>ACTIVITIES NOT REQUIRING A MODIFICATION OF THE SIP: The Permittee may make changes to the facility without obtaining a modification as long as the change does not do or result in any of the following:</p> <p>A. an exceedance of the limitations associated with the emission units in the SIP; B. a physical change of the equipment that affects the stack parameters described in Appendix B; or C. an increase of a maximum potential lead emission rate by less than or equal to 0.025 pound per hour for any installation, modification, or operation of lead process or control equipment.</p> <p>The Permittee may replace, install and operate additional CEMs and CMS, so long as the new or replaced CEMs and CMSs are properly certified and comply with Minn. R. 7017.1002 - 1220.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>ACTIVITIES REQUIRING A MODIFICATION OF THE SIP: A. any modification to the design of the equipment that decreases the stack gas volumetric flow rate below that contained in Appendix B; B. any modification to the design of the equipment that decreases the stack gas exit temperature below that contained in Appendix B; C. any modification to the design of the equipment that reduces the stack height below that contained in Appendix B; D. any construction or modification of structures that increase the effective structural dimensions as they are used in the building wake effects algorithm in the ISC Air Dispersion Model, or its successor; or E. any increase of a maximum potential lead emission rate by more than 0.025 pound per hour.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>General Operating and Maintenance Requirements for the SIP: The Permittee shall operate and maintain the process equipment described in Appendix B according to the parameters set forth in Appendix B. The parameters were used in the computer modeling performed to demonstrate that the lead maintenance area attains compliance with the National Ambient Air Quality Standard (NAAQS) for lead.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>Property Access Restrictions: The Permittee shall limit access to the portion of the property shown in Appendix F with fencing that continuously encloses that portion of the Facility property, excluding access points. The Permittee shall limit access to the portion of the property indicated in Appendix F with gates at each access point. The Permittee shall operate security cameras that monitor access to the main gate, shown in Appendix F during office hours. At all other times, the Permittee shall keep the main gate locked when not in use. At all times, the Permittee shall keep locked all other gates when not in use. The Permittee shall post NO TRESPASSING signs at all access points.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>Property Access Monitoring: The Permittee shall demonstrate compliance with the property access restrictions by monthly inspecting the fencing and gates, and repairing and maintaining the fencing and gates. The Permittee shall complete all repairs to the fencing and gates within 30 days after the Permittee has access to information that indicates repair is needed.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Gopher Resource LLC

Permit Number: 03700016 - 003

<p>Property Access Recordkeeping: The Permittee shall generate and maintain records containing information associated with the Facility property access restrictions requirements. At the minimum, the Permittee shall retain records containing the following information:</p> <p>1. Inspections: Records of the date of inspection, name of the person conducting the inspection, identification of each section of fence and each gate inspected, trespassers or evidence of trespassers, and identification of each location where repair or maintenance is required.</p> <p>2. Repairs: Records of the date of repair or maintenance, a description of the repair and maintenance conducted, and the locations where repair and maintenance occurred.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>FUGITIVES CONTROL: Other lead emission sources at the Facility include building openings, reentrained dust from truck traffic at the Facility and wind erosion of unpaved, or otherwise uncovered, areas on the around the Facility site. The Permittee shall limit the amount of fugitive lead emissions by, at a minimum, performing the activities indicated below (Items A - E)</p> <p>(continued below)</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>(continued from above)</p> <p>A. Building Openings: The Permittee shall keep closed all barriers on outside openings of the Smelting, Raw Material Warehouse and process side of the Raw Material Processing Area, shown in Appendix D of this permit, at all times except during ingress and egress through the building opening, except that some outside doors may be kept open to provide additional makeup air. Whenever an outside door is kept open, the Permittee shall demonstrate that negative pressure is still maintained, using a method described in Appendix H of this permit. If negative pressure cannot be demonstrated with open doors, the doors shall be closed immediately and negative pressure demonstrated with the doors closed. Records shall be kept of all such events and demonstrations. The Permittee shall keep closed all rail loading doors in the Refining area, shown in Appendix D of this permit, at all times except when a rail car is being loaded.</p> <p>(continued below)</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>(continued from above)</p> <p>The Permittee shall monthly inspect all barriers on outside openings for damage which would result in lead emissions escaping the building. Any time that damage to the outside openings which would result in lead emissions escaping the building is detected, the owner or operator shall repair the damage within two weeks of the detection.</p> <p>The Permittee shall prevent fugitive lead from emitting through outside openings by operating and maintaining a negative pressure system that puts the areas shown in Appendix E under negative pressure, and a ventilation system that collects lead bearing air from the negative pressure areas shown in Appendix E of this permit and routes it through a cartridge filter.</p> <p>(continued below)</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>(continued from above)</p> <p>B. Sweeping The Permittee shall sweep all paved outdoor areas, as indicated in Appendix J of this permit, with a vacuum equipped road sweeper. If there was a 0.1 inch rainfall during the previous 24 hours, or if these areas are covered with snow the Permittee is exempt from sweeping uncovered outside areas during the subsequent 24 hours. The owner or operator shall collect manually record rainfall data with an on-site rain gauge.</p> <p>The Permittee shall immediately (as soon as is reasonably possible after giving consideration to plant and personnel safety) clean up spills of lead containing materials, flue dust, or slag with a vacuum equipped road sweeper, or by hand vacuuming or wet sweeping.</p> <p>The Permittee shall store swept lead bearing material in the Raw Material Warehouse and recycle the swept lead bearing material in the furnaces.</p> <p>(continued below)</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Gopher Resource LLC

Permit Number: 03700016 - 003

<p>(continued from above)</p> <p>C. Traffic Limitations The Permittee shall limit mobile equipment traffic to the paved outdoor areas, shown in Appendix J, except for lawn mowing equipment on vegetative (grass covered) areas and maintenance and inspection activities.</p> <p>D. Equipment Handling and Cleaning Bag and Cartridge Replacement: The Permittee shall immediately deposit used bags and cartridge filters in leak-proof containers when replacing the baghouse or cartridge filters for the control equipment listed in Appendix B. The owner or operator shall recycle the used bags or cartridge filters in the furnaces.</p> <p>(continued below)</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>(continued from above)</p> <p>Mobile Equipment: The Permittee shall daily clean all mobile equipment used in the containment building. Mobile equipment includes, but not limited to vacuum sweepers, forklifts, and front end loader(s). Cleaning shall be conducted by hand vacuuming, scrubbing or pressure washing with water in the wash bays indicated in Appendix D of this permit. The Permittee shall keep the barriers on outside openings closed during cleaning.</p> <p>The Permittee shall store vacuumed lead bearing material in the Raw Material Warehouse shown in Appendix D of this permit, and recycle the vacuumed material in the furnaces, described in Appendix B. The Permittee shall dispose of any water laden with lead in the Facility Water Treatment Plant.</p> <p>(continued below)</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>(continued from above)</p> <p>Ventilation System: The Permittee shall on a monthly basis, inspect the ventilation system for holes and negative static pressure with an electronic or magnehelic pressure gauge. The Permittee shall clean and/or repair the ventilation systems if there are visible holes and/or positive static pressure. The owner or operator shall monthly test the magnehelic gauges for accuracy, and repair or replace defective gauges as prescribed by the manufacturer.</p> <p>Hazardous Material: The Permittee shall store material inside the Facility building. The Permittee shall apply water to hazardous material prior to loading it into trucks that haul the slag material outside the Facility building. Water application is not required when the air temperature outside is at or below 32 degree F. The Permittee shall cover all trucks hauling hazardous residue outside the Facility building.</p> <p>(continued below)</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>(continued from above)</p> <p>E. Wind Erosion Prevention Vegetative Cover: The Permittee shall maintain continuous vegetative cover (grasses) over all areas that are not paved or otherwise continuously covered.</p> <p>Paved Areas: The Permittee shall retain and maintain all paved areas.</p> <p>Soil Removal: If the Permittee removes lead bearing soil to comply with Resource Conservation Recovery Act (RCRA) corrective action requirements, the Permittee shall remove and handle the soil in accordance to a corrective action plan approved by the MPCA Hazardous Waste Program. If as a part of the corrective action plan the Permittee replaces lead bearing soil with clean fill (without lead) that bars remaining lead bearing soil from exposure to the air, the Permittee is exempt from vegetative cover and paved areas requirements in those areas on which clean fill is in place.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>Recordkeeping for the MN State Implementation for Lead: Retain all records at the stationary source for a period of five (5) years from the date of the required monitoring, sample, measurement, or report that corresponds with the MN State Implementation Plan Title I Condition.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>NEGATIVE PRESSURE TESTING:</p> <p>The owner or operator shall monthly conduct Negative Pressure testing in accordance with Appendices H and I of this permit.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Gopher Resource LLC

Permit Number: 03700016 - 003

<p>CONTINGENCY PLAN REQUIREMENTS: In the event that the maintenance area in which the Facility is located fails to maintain compliance with the lead NAAQS of 1.5 microgram per cubic meter, the following contingency plan measures shall be implemented by the Permittee. These measures shall be implemented by the owner or operator within 30 days following formal determination and notification by the MPCA or the EPA.</p> <p>A. The Permittee shall daily sweep with a wet sweeper the paved outdoor areas that are shown in Appendix D as areas that are daily swept.</p> <p>B. The Permittee shall daily sweep with a vacuum equipped road sweeper the paved outdoor areas that are shown in Appendix D as areas that are swept at least once a week and at least every three weeks.</p> <p>(continued below)</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>(continued from above)</p> <p>C. If ice will form on the paved outdoor areas while sweeping with a wet sweeper, the Permittee shall sweep twice daily with a vacuum equipped road sweeper the paved outdoor areas that are shown in Appendix D as areas that are daily swept.</p> <p>D. The Permittee is exempt from sweeping if there was a 0.1 inch rainfall during the previous 24 hours, or if the paved outdoor areas are covered with snow. The Permittee shall collect rainfall data with an onsite rain gauge.</p> <p>In the event that the contingency plan is implemented, the Permittee shall maintain a record of all sweeping events, records of rainfall and snow cover for times not swept because of snow cover, and records of days that dry sweeping replaced wet sweeping because of ice formation on the paved outdoor areas.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>RECORDKEEPING</p> <p>The Permittee shall keep and maintain all required documents, records, reports, and plans in a form suitable to allow the EPA or MPCA staff to determine compliance with SIP requirements. The Permittee shall maintain the information onsite in files which are easily accessible for inspection by EPA or MPCA staff.</p> <p>(continued below)</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>(continued from above)</p> <p>At a minimum, the Permittee shall retain records containing the following information:</p> <p>1. Building Openings: all monthly negative pressure testing results, monthly inspection reports of all damage to barriers on inside and outside openings, and the corrective action taken. If no damage occurred, the record shall state that no damage occurred. Records shall be kept of damage and subsequent repair or replacement of barriers on inside and outside openings detected or that occur at times other than during the monthly inspection. The records shall also include the installation of any new building openings and barriers for the openings.</p> <p>2. Sweeping: records of daily and weekly sweeping events, spills of lead containing materials, cleanup of these spills, records of sweeping equipment breakdowns and repairs, and records of rainfall and snow cover for times not swept because of the presence of rainfall or snow cover.</p> <p>(continued below)</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>(continued from above)</p> <p>3. Equipment Handling and Cleaning: daily records of mobile equipment cleaning and repairs, and record of monthly ventilation system inspections, and magnahelic gauge repair and replacement.</p> <p>4. Wind Erosion Prevention: inspection records of vegetative cover and pavement, and repairs to these areas. A record of any lead contaminated soil corrective action (under RCRA) at the facility, and of areas covered with clean fill.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p></p>	<p></p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-17

06/29/10

Facility Name: Gopher Resource LLC

Permit Number: 03700016 - 003

Subject Item: GP 007 Torit Stacks**Associated Items:** SV 002 SIP Source 3 (CE003 and CE002)

SV 008 Fugitive Emission Collection

What to do	Why to do it
Lead: less than 3.45 lbs/hour using 3-hour Average . This limit applies to the combined emissions from SV002 and SV008.	Title I Condition: State Implementation Plan (SIP) for Lead NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Performance Test: due before end of each calendar 24 months following Permit Issuance to measure lead emissions from SV002 and SV008, combined, unless more frequent testing is required for SV002 (see Subject Item SV002). Demonstration of compliance with the GP007 limit shall be required each time SV002 is required to be tested for lead and/or lead compound emissions.	Title I Condition: State Implementation Plan (SIP) for Lead NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Gopher Resource LLC

Permit Number: 03700016 - 003

Subject Item: SV 002 SIP Source 3 (CE003 and CE002)

Associated Items: GP 007 Torit Stacks

What to do	Why to do it
Lead: less than 0.0025 grains/dry standard cubic foot using 3-hour Average	Title I Condition: State Implementation Plan (SIP) for Lead NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Opacity: less than or equal to 5 percent opacity	Title I Condition: State Implementation Plan (SIP) for Lead NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
PERFORMANCE TESTING REQUIREMENT	hdr
Performance Test: due before end of each calendar 24 months starting 11/30/1999 to measure lead emissions.	Title I Condition: State Implementation Plan (SIP) for Lead NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Performance Test: due before end of each calendar 24 months starting 11/30/1999 to measure opacity, unless annual testing of lead or lead compounds is required. Opacity testing shall take place each time lead and/or lead compounds are tested.	Title I Condition: State Implementation Plan (SIP) for Lead NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Gopher Resource LLC

Permit Number: 03700016 - 003

Subject Item: SV 003 Main Stack (CE004, CE005) (SIP Source 1)

- Associated Items:** EU 004 West Reverberatory Furnace
 EU 006 Scrap Dryer
 EU 007 East Reverberatory Furnace
 EU 009 Blast Furnace
 EU 011 Refining Kettle No. 1
 EU 012 Refining Kettle No. 2
 EU 013 Refining Kettle No. 3
 EU 014 Refining Kettle No. 4
 EU 015 Refining Kettle No. 5
 EU 016 Refining Kettle No. 6
 EU 017 Refining Kettle No. 7
 EU 018 Refining Kettle No. 8
 EU 019 Refining Kettle No. 9
 EU 020 Refining Kettle No. 10
 EU 025 Thermal Oxidizer (aka CE007)
 MR 001 SO2 CEMS

What to do	Why to do it
Note that EU007 and EU009 are also subject to the requirements listed at Subject Items: GP001 and GP006.	hdr
EMISSION LIMITS	hdr
Lead: less than 0.00306 grains/dry standard cubic foot using 3-hour Average [7mg/dscm]. This limit applies to the emissions of SV003.	Title I Condition: State Implementation Plan (SIP) for Lead NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Opacity: less than or equal to 5 percent opacity . This limit applies to all units exhausting through SV003.	Title I Condition: State Implementation Plan (SIP) for Lead NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Gopher Resource LLC

Permit Number: 03700016 - 003

PERFORMANCE TESTING REQUIREMENT	hdr
Performance Test: due before end of each calendar 24 months starting 11/30/1999 to measure lead emissions.	Title I Condition: State Implementation Plan (SIP) for Lead NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
Performance Test: due before end of each calendar 24 months starting 11/30/1999 to measure opacity, unless annual testing of lead or lead compounds is required. Opacity testing shall also take place each time lead and/or lead compounds are tested.	Title I Condition: State Implementation Plan (SIP) for Lead NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-23

06/29/10

Facility Name: Gopher Resource LLC

Permit Number: 03700016 - 003

Subject Item: SV 008 Fugitive Emission Collection**Associated Items:** EU 002 Raw Material Handling Operation

GP 007 Torit Stacks

What to do	Why to do it
Opacity: less than or equal to 5 percent opacity	Title I Condition: State Implementation Plan (SIP) for Lead NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP
PERFORMANCE TESTING REQUIREMENT (See also GP007)	hdr
Performance Test: due before end of each calendar 24 months following Permit Issuance to measure opacity, unless annual testing of lead or lead compounds is required. Opacity testing shall take place each time lead and/or lead compounds are tested.	Title I Condition: State Implementation Plan (SIP) for Lead NAAQS, 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Gopher Resource LLC

Permit Number: 03700016 - 003

Subject Item: CE 002 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

- Associated Items:** FS 001 Furnace Area Process Fugitives
 FS 005 Casting Machine Process Fugitives
 FS 006 Refining Area Fugitive Dust Sources
 GP 004 NESHAP Subpart X Control Equipment Monitoring Requirements
 GP 008 Torit Filter Banks

What to do	Why to do it
<p>Air Pollution Control Equipment Monitors: The owner or operator shall operate and maintain pressure drop gauges and broken media detectors, to measure pressure drop across the cartridge filters and baghouse cells in inches of water and an increase in particulate grain loading at each baghouse and cartridge filter outlet. Each broken media detector shall be equipped with a device that continually records grain loading, and an alarm that alerts the owner or operator of increases in grain loading.</p> <p>Alarm Triggers: In the event that the alarm on a broken media detector is triggered, the owner or operator shall immediately isolate the cartridge bank or baghouse cell for which the alarm was triggered as described in Appendix G of this permit.</p> <p>See Also Subject Item GP004, for additional broken media detection requirements (NESHAP Subpart X)</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>Broken media detectors are not required for cartridge collectors used exclusively for the control of fugitive dust emissions from any source subject to the lead emissions standard in 40 CFR Section 63.545. (THIS REQUIREMENT WILL BECOME EFFECTIVE THE DATE EPA APPROVES THE REVISION INTO THE SIP.)</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP; 40 CFR Section 63.548(h)</p>
<p>Pressure Drop: greater than or equal to 0.5 inches of water column and less than or equal to 15.0 inches of water column , unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>Periodic Inspections: The Permittee shall inspect the fabric filter as described in Appendix K.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Gopher Resource LLC

Permit Number: 03700016 - 003

<p>The Permittee shall monthly test each pressure drop gauge and broken media detector, clean the broken media detector, and repair and replace gauges and detectors in accordance with Appendix G. The Permittee shall maintain records of such testing and actions taken as a result of the testing.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
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TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Gopher Resource LLC

Permit Number: 03700016 - 003

Subject Item: CE 003 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

Associated Items: FS 001 Furnace Area Process Fugitives

GP 004 NESHAP Subpart X Control Equipment Monitoring Requirements

GP 008 Torit Filter Banks

What to do	Why to do it
<p>Air Pollution Control Equipment Monitors: The owner or operator shall operate and maintain pressure drop gauges and broken media detectors, to measure pressure drop across the cartridge filters and baghouse cells in inches of water and an increase in particulate grain loading at each baghouse and cartridge filter outlet. Each broken media detector shall be equipped with a device that continually records grain loading, and an alarm that alerts the owner or operator of increases in grain loading.</p> <p>Alarm Triggers: In the event that the alarm on a broken media detector is triggered, the owner or operator shall immediately isolate the cartridge bank or baghouse cell for which the alarm was triggered as described in Appendix G of this permit.</p> <p>See Also Subject Item GP004, for additional broken media detection requirements (NESHAP Subpart X)</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>Pressure Drop: greater than or equal to 0.5 inches of water column and less than or equal to 15.0 inches of water column , unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>Periodic Inspections: The Permittee shall inspect the fabric filter as described in Appendix K.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>The Permittee shall monthly test each pressure drop gauge and broken media detector, clean the broken media detector, and repair and replace gauges and detectors in accordance with Appendix G. The Permittee shall maintain records of such testing and actions taken as a result of the testing.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Gopher Resource LLC

Permit Number: 03700016 - 003

Subject Item: CE 004 Fabric Filter - High Temperature, i.e., T>250 Degrees F

Associated Items: EU 004 West Reverberatory Furnace

EU 007 East Reverberatory Furnace

EU 009 Blast Furnace

EU 011 Refining Kettle No. 1

EU 012 Refining Kettle No. 2

EU 013 Refining Kettle No. 3

EU 014 Refining Kettle No. 4

EU 015 Refining Kettle No. 5

EU 016 Refining Kettle No. 6

EU 017 Refining Kettle No. 7

EU 018 Refining Kettle No. 8

EU 019 Refining Kettle No. 9

EU 020 Refining Kettle No. 10

FS 003 East Reverberatory Furnace Process Fugitives

FS 004 Blast Furnace Process Fugitives

GP 004 NESHAP Subpart X Control Equipment Monitoring Requirements

What to do	Why to do it
<p>Air Pollution Control Equipment Monitors: The Permittee shall operate and maintain pressure drop gauges and broken media detectors, to measure pressure drop across the cartridge filters and baghouse cells in inches of water and an increase in particulate grain loading at each baghouse and cartridge filter outlet. Each broken media detector shall be equipped with a device that continually records grain loading, and an alarm that alerts the owner or operator of increases in grain loading.</p> <p>Alarm Triggers: In the event that the alarm on a broken media detector is triggered, the owner or operator shall immediately isolate the cartridge bank or baghouse cell for which the alarm was triggered as described in Appendix G of this permit.</p> <p>See Also Subject Item GP004, for additional broken media detection requirements (NESHAP Subpart X)</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Gopher Resource LLC

Permit Number: 03700016 - 003

<p>Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 10.0 inches of water column , unless a new range is set pursuant to Minn. R. 7017.0205, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>Periodic Inspections: The Permittee shall inspect the fabric filter as described in Appendix K.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP; 40 CFR Section 64.3; Minn. R. 7017.0200</p>
<p>The Permittee shall monthly test each pressure drop gauge and broken media detector, clean the broken media detector, and repair and replace gauges and detectors in accordance with Appendix G. The Permittee shall maintain records of such testing and actions taken as a result of the testing.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Gopher Resource LLC

Permit Number: 03700016 - 003

Subject Item: CE 005 Fabric Filter - High Temperature, i.e., T>250 Degrees F

Associated Items: EU 004 West Reverberatory Furnace

EU 006 Scrap Dryer

EU 007 East Reverberatory Furnace

EU 009 Blast Furnace

FS 002 West Reverberatory Furnace Process Fugitives

FS 003 East Reverberatory Furnace Process Fugitives

GP 004 NESHAP Subpart X Control Equipment Monitoring Requirements

What to do	Why to do it
<p>Air Pollution Control Equipment Monitors: The Permittee shall operate and maintain pressure drop gauges and broken media detectors, to measure pressure drop across the cartridge filters and baghouse cells in inches of water and an increase in particulate grain loading at each baghouse and cartridge filter outlet. Each broken media detector shall be equipped with a device that continually records grain loading, and an alarm that alerts the owner or operator of increases in grain loading.</p> <p>Alarm Triggers: In the event that the alarm on a broken media detector is triggered, the owner or operator shall immediately isolate the cartridge bank or baghouse cell for which the alarm was triggered as described in Appendix G of this permit.</p> <p>See Also Subject Item GP004, for additional broken media detection requirements (NESHAP Subpart X)</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 10.0 inches of water column , unless a new range is set pursuant to Minn. R. 7017.0205, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP</p>
<p>Periodic Inspections: The Permittee shall inspect the fabric filter as described in Appendix K.</p>	<p>Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP; 40 CFR Section 64.3; Minn. R. 7017.0200</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Gopher Resource LLC

Permit Number: 03700016 - 003

The Permittee shall monthly test each pressure drop gauge and broken media detector, clean the broken media detector, and repair and replace gauges and detectors in accordance with Appendix G. The Permittee shall maintain records of such testing and actions taken as a result of the testing.	Title I Condition: State Implementation Plan (SIP) for Lead NAAQS; 40 CFR pt. 50; 40 CFR pt. 51; 40 CFR pt. 52, subp. Y; MN SIP

Appendix B: Parameters Relied Upon in Modeling**Facility Name:** Gopher Resource Corporation**Permit Number:** 03700016-003**B.1 Lead Modeling**

Source	SV ID	Stack Height (feet)	Stack Height (m)	Stack Dia. (feet)	Stack Dia. (m)	Flow Rate (acfm)	Exit Temp (F)
Main Stack (Administrative Order Source #1)	003	199	60.65	6.0	1.83	119,000	190
Torit Stack (Administrative Order Source #3)	002	80	24.38	8.0	2.44	166,000	120
Torit Stack (new)	008	80	24.38	7.0	2.13	133,000	120

Control/Monitoring Equipment	Control Equipment Number	SV ID	No. of Bags	Pressure Drop Range (inches of water)	Filter Ratio	Maximum Rated Design Capacity (acfm)	Maximum Inlet Temperature (degree F)
RMPC Scrubber	CE 001	001	NA	0.1-6.0	NA	15,000	120
Torit Cartridge Filter No. 1 & 2	CE 002	002	No. of filters elements: 320	0.5-15.0	1.3:1	100,000	150
Torit Cartridge Filter No. 3	CE 003	002	No. of filters elements: 160	0.5-15.0	2.4:1	66,000	150
East Baghouse	CE 004	003	720	1-10	1.82:1	55,000	250
West Baghouse	CE 005	003	720	1-10	1.82:1	55,000	450
Soda Ash Bin Baghouse	CE 006	004	6 @ 6 inch diameter	1.0-7.0	6:1		Cloth Area: 174 sq. feet
Torit Cartridge Filter No. 4	CE008	008	192	0.5-15.0	1.8:1	66,000	150
Torit Cartridge Filter No. 5	CE009	008	192	0.5-15.0	1.8:1	66,000	150

B.2 SO₂ Modeling

Source	SV ID	Stack Height (feet)	Stack Height (m)	Stack Dia. (feet)	Stack Dia. (m)	Flow Rate (acfm)	Exit Temp (F)	Modeled SO ₂ Emission Rate (lb/hr)
Main Stack	003	199	60.65	6.0	1.83	119,000	190	2080
Scrubber Stack	001	50	15.24	3.0	0.91	15,000	85	0.2

Appendix G: SIP-Required Testing and Maintenance of Pressure Drop Gauges and Broken Media Detectors and Alarm Response Procedures
Facility Name: Gopher Resource Corporation
Permit Number: 03700016-003

I. Pressure Drop Gauges (Magnehelics)

A. Portable Magnehelic Gauges:

1. The Company shall monthly determine the accuracy of the portable magnehelic gauges, described in the Ventilation System of this Permit, with an electronic manometer (such as Dwyer's model #475) to measure the static pressure at the magnehelic's access point.
2. The Company shall immediately remove and replace all magnehelic gauges that show a static pressure deviation from the electronic manometer of greater than 10 percent.
3. The Company shall keep a record of all accuracy testing, removal and replacement of gauges, and items referred to in this permit. The record shall be signed by the person conducting the testing and the person removing and replacing the gauges.
4. The company shall maintain the electronic manometer as recommended by the manufacturer (zero before each use, etc.)

B. Fixed Pressure Drop Gauges (described in Appendix B as monitoring pressure drop on the baghouses and cartridge filters)

1. The company shall monthly determine the accuracy of the pressure drop gauges, with an electronic manometer to measure the static pressure at the magnehelic's access point.
2. The Company shall immediately remove and replace all magnehelic gauges that show a static pressure deviation from the electronic manometer of greater than 10 percent.
3. The Company shall keep a record of all accuracy testing, and removal and replacement of gauges. The record shall be signed by the person conducting the testing and the person removing and replacing the gauges.

II. Broken Media Detectors (TRIBOFLOW units that monitor increases in grain loading on the baghouses and cartridge filters.)

A. The Company shall monthly clean the probes on each Broken Media Detector as indicated below and retain records of all cleaning. The record shall be signed by the person conducting the cleaning.

1. Disconnect the center conductor wire.
2. Remove the sensor and clean the sensor and insulator with a clean dry rag.
3. Reinstall the sensor and reconnect the center conductor wire.
4. Check the digital printout unit to ensure that the unit is operating and levels are within normal operating range (The TRIBOFLOW unit consists of sensing probes, cables and a signal processing unit. Probes are installed immediately upstream of each emissions control fan. When the probes are inserted in a stream of particles, a continual transfer of charge takes place as particles collide with the probe. Because an electrical path to ground is provided, an essentially continuous signal is produced. The TRIBOFLOW monitors the character and level of this signal, which correlates with the actual flow rate.)

B. The Company shall calibrate the alarms on the Broken Media Detectors to notify personnel of possible increases in grain loading. The alarm shall be calibrated to alert personnel at 20 milliamps for each Broken Media Detector.

C. The Company shall repair or replace all Broken Media Detectors that do not signal grain loading or alarm as described above.

III. TRIBOFLOW Alarms

- ### **A. In the event that the TRIBOFLOW alarms, the Company shall conduct the following steps.**

1. Company personnel shall immediately determine which probe caused the alarm to sound.
2. Company personnel shall immediately observe the top of the stack for an increase in opacity.
3. If an increase in opacity has occurred, the Company shall shut off the cartridge bank or baghouse cells one at a time until the problem cell has been identified. The Company shall shutdown the problem cell until repairs are made or cell is replaced.

Appendix H: SIP-Required Negative Pressure System Testing
Facility Name: Gopher Resource Corporation
Permit Number: 03700016-003

Control Equipment Units CE002, 003, 008, and 009 at Gopher Resource Corporation are designed to place certain areas of the processing building (Raw Materials Handling Operations, the Furnace (smelting) and the Refining areas) under negative pressure. The negative pressure system is comprised of a ventilation system that vents air from certain areas of Building B (the processing building) through five banks of cartridge filters ducting into two common stacks (SV 002 & SV 008). In order to insure that these areas remain under negative pressure, the Permittee shall document on a monthly basis that negative pressure is maintained.

When any of these filter banks are taken down for routine maintenance or emergency repairs (filter change-out, auger or air lock repairs, etc.), the Company shall verify that the remaining operational filter banks are maintaining negative pressure on the required areas. The five filter banks are rated at 314,000 acfm so negative can be maintained on the building with only two of the banks operating. Documentation of negative pressure will only be required if more than two of the banks are down at once.

Monthly verification of negative pressure can be done by performing smoke testing of outside openings or using some other method of verification that the Company may elect to use. This could include an electronic magnahelic system or a hand-held anemometer unit.

- I. The Company shall determine the effectiveness of the negative pressure system by testing various outside and inside openings where negative pressure is required. These locations shall include, but are not limited to, the following areas:
 - a) Openings around closed overhead doors;
 - b) Air flow direction when outside man-doors or outside overhead doors are opened;
 - c) Air flow from adjacent building areas through connecting doorways (for example, air flow in the door separating the Refining area from the Furnace area should be towards the Furnaces)
- II. If using smoke tubes to verify negative pressure, the Company shall conduct the smoke testing as described in Appendix I of this permit. An electronic magnahelic system or hand-held anemometer system of documentation will have electronic records or actual flow rates noted.
- III. The Company shall record the monthly testing described above on a map of Building B using arrows to indicate the air flow direction. The map shall also include a description of the outside openings, the date and time of the test, weather conditions during the test, and process equipment operating and control equipment operating during the time of the test. The record shall be signed by the person conducting the test.
- IV. The Company shall immediately determine the cause of any positive pressure test results, and repair the cause.
- V. If any positive pressure is detected and the cause repaired, the Company shall repeat the smoke test described above and record the results.

^a Immediately shall mean as soon as reasonably possible after giving consideration to Facility and personnel safety.

Appendix I: SIP-Required Smoke Testing Methodology for Negative Pressure System Testing
Facility Name: Gopher Resource Corporation
Permit Number: 03700016-003

Prior to performing the negative pressure in the building, the following issues must be checked and recorded:

1. Insure that all doors (over-head & mandooors) in the furnace and containment areas are closed. If not, close them before continuing the test and check periodically throughout the test that they remain closed.
2. Record the settings on the five Torit Cartridge Unit Controllers. These settings should be recorded at the top of the Negative Pressure Test Sheet.

The smoke test is to be controlled using s MSA Ventilation Smoke Tube or similar tube which provides a visible indication of air flow direction. Both ends of the tube are to be broken off (use the supplied tube to prevent injuries) and one end inserted into the rubber bulb. Squeeze the bulb to insure that tube's effectiveness. If sufficient smoke is generated, the specified overhead doors, mandooors and roof openings can be checked in the furnace and containment rooms.

TESTING A MANDOOR: Open the door approximately one foot and, while standing to one side, blow smoke vertically at three different heights within the opening (top, middle & bottom of the door). The smoke at all three locations should move into the furnace/containment rooms. If they do, indicate on the "Negative Pressure Test" sheet with an arrow pointing inwards and move on to the next opening. If the smoke blows out of the furnace/containment rooms, indicate again with an arrow pointing out of the rooms and move on to the next opening.

TESTING AN OVERHEAD DOOR: Activate the door opener and move quickly to the middle of the opening. Begin blowing smoke near the bottom as it opens and continue blowing smoke following the action of the door as it moves up. When completely open, the smoke should continue to flow into the furnace/containment rooms. Indicate the direction of air flow on the "Negative Pressure Test" sheet and move on to the next opening.

TESTING AND OPENING (OTHER THAN DOORS): Certain roof opening require smoke testing to insure the designated portions of the building remain under a negative pressure. One location is the metal cover where the stack support cables pass through the roof. In order to test this location, pull out a portion of the fiberglass blanket wrapped around the cables and blow smoke near the opening. Record the direction of air flow on the sheet and then replace the fiberglass blanket.

The other roof opening that require checking are the gaps in the tin shed over the blast where ventilation ducting passes through them. Check a number of these openings with the smoke tube. If all locations indicated the smoke is being pulled into the building, indicted that on the sheet. If otherwise, note positive flow.

ACCEPTABLE TEST: If all tested locations indicated negative pressure within the furnace/containment rooms, finish filling out the report including processes operating, weather conditions (wind direction and velocity and approximate temperature) and any additional field notes you feel are relevant to the test.

UNACCEPTABLE TEST: If any of the tested locations indicated positive pressure, recheck the Torit controller settings and that all overhead doors are closed. Repeat the test and document air flow direction. If this test is acceptable, then complete the items listed above under the ACCEPTABLE TEST heading. If openings are still found to be positive, contact the Health and Safety Manager or Plant Manager for assistance in determining the cause of the positive pressure. Once corrected, again go through the entire Negative Pressure Test to insure that all locations are negative pressure. Record in the Field Notes section the problem and solution and keep all copies of the Negative Pressure Test on file.

CAUTION: The ends of any used smoke tubes are extremely jagged and should be handled with extreme caution to prevent injury to yourself or others. Used smoke tubes should be thrown directly into the large dumpster to eliminate a potential injury to janitorial personnel emptying garbage cans. The rubber bulb, tip snapper and any unused tubes should be returned to their case in the main storeroom. The complete Negative Pressure Test sheet should be returned to the Maintenance Supervisor for review and filing.

NOTE: If Gopher Resource decides to seal gaps then smoke testing will not be required.

Appendix K: Maintenance Plan for Baghouses and Cartridge Filters

Facility Name: Gopher Resource Corporation

Permit Number: 03700016-003

- I. The Company shall conduct the activities as indicated below for each baghouse and cartridge filter described in Appendix B of this permit (Exhibit 1 of the Administrative Order). Records of these activities shall be signed by the person that performed the inspection.
- A. Visually check for emissions at the top of each stack a minimum of once per shift.
 - B. Inspect each baghouse cell once a week. Inspect for holes or other problems. Replace any bag as necessary. Record the reason for replacing the bag.
 - C. Once per week, inspect the baghouse hopper for any buildup and clean as necessary.
 - D. Once per week, inspect the baghouse and cartridge filter broken media detectors and pressure drop gauges as described in Appendix G (Exhibit 8 of the Administrative Order).
 - E. Once per week, check each baghouse cell for accumulation of free dust and clean as necessary.
 - F. Once per week, inspect baghouse inlet dampers and clean as necessary.
 - G. Once per shift, inspect all baghouse mechanical shakers.
 - H. Once per shift, check magnehelic gauge and once per shift record readings.
- II. The Company shall maintain the spare parts inventory as indicated below:
- A. CE004 and CE005 (Baghouse #1 and Baghouse #1 as described in Administrative Order; East Baghouse and West Baghouse as described in Appendix B)

QUANTITY	PART NUMBER	DESCRIPTION
120	232050	8" x 20' 0" Filtron Bag
120	222069	Tube Hook
4	194206	V-Block
1	203695	Eccentric Shaft
4	191207	Pin
1	203740	End Shaft
1	203741	End Shaft
4	186183	Knife-Edge Assembly
4	191575	Arm
2	231969	Shaker Bar
4	191014	Gasket
4	191013	Felt Seal
4	187121	Flangette Bearing
2	98262	1 1/2" Pillow Bearing
2	133852	1 7/16" Eccentric Bearing
10		1/8" x 1 1/2" Cotter Pin
15		1 7/16" - 14 Self Locking Nuts
15		1 7/16" N.C.C.P. Hex Nuts

- B. CE002 and CE003 (Cartridge Filter #4 #5 as described in Administrative Order, or Cartridge Filters 1-3 as described in Appendix B)

QUANTITY	PART NUMBER	DESCRIPTION
12	8PP-42058-00	Ultra Web FR Filter Element
3	8PP-24277-00	Diaphragm Valve RCA 25DD
3	8PP-24636-00	Solenoid Valve Rebuild Kit
3	8PP-25409-00	Solenoid Replacement Coil

Torit Relacement Parts for Torit Downflo II Unit as Recommended by Manufacturer (Donaldson)