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02/21/2012

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
CERTIFIED NO. 7001 1140 0003 6352 7338

Mr. Ben Kahue
Bureau of Air Pollution Control
Nevada Division of Environmental Protection
901 South Stewart Street, Suite 4001
Carson City, NV 89701-5249

**RE: Class I Operating Permit Minor Revision Application – System 06
AP1041-0723.02, Newmont Mining Corporation Twin Creeks Mine**

Dear Mr. Kahue:

Newmont Mining Corporation hereby submits a minor modification application for the addition of a jaw crusher/rotary splitter (S2.047), a laboratory drying oven (S2.048) and two pulverizers (S2.049 and S2.050) to AP1041-0723.02 System 06, Laboratory Sample Preparation Circuit. The addition of the equipment will not increase the throughput of System 06, nor increase the flow rate of the baghouse; therefore there is no change in emissions associated with System 06. Additionally, the laboratory roll crusher (S2.006), laboratory jaw crusher (S2.007), and screen (S2.011 previously removed from the permit at Newmont's request) have been removed from the lab and this minor modification application.

The \$5,000 fee associated with this modification will be submitted through Nevada Division of Environmental Protection's e-payment process. This information is intended to allow BAPC to fully assess the applicable requirements arising from the requested permit revision. Should you have additional questions, please do not hesitate to call Jennifer Ortega at 775-635-6631 or Rob Conley at 775-635-4795.

Sincerely,

A handwritten signature in blue ink, appearing to read "Doug Barto", with a long horizontal flourish extending to the right.

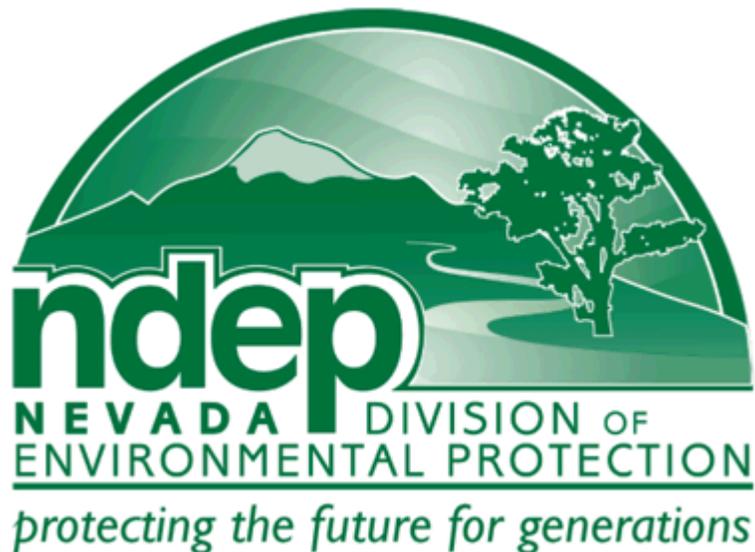
Doug Barto
Senior Environmental Manager
Twin Creeks Mine

Enclosures

cc: File

*Class I-B Operating Permit
Application Packet for*

**Minor Revision of a
Class I Operating Permit**



*Prepared by
Division of Environmental Protection
Bureau of Air Pollution Control
Class I Permitting Branch
July 2003*

**Application
for
Minor Revision of a
Class I Air Quality
Operating Permit**

GENERAL COMPANY INFORMATION

All applicants shall complete each item or explain in the space provided why no information is needed. Please specify "N/A" (Not Applicable) if necessary. The application will be returned to the applicant if it is deemed incomplete.

1. **COMPANY NAME AND ADDRESS THAT ARE TO APPEAR ON THE OPERATING PERMIT**
[NAC 445B.295.1]:

(Name)

(Address)

(City)

(State)

(Zip Code)

2. Owner's Name and Address [NAC 445B.295.1]:

(Name)

(Address)

(City)

(State)

(Zip Code)

3. Source Name and Mailing Address, if different from #1 [NAC 445B.295.1]:

(Name)

(Address)

(City)

(State)

(Zip Code)

4. Name and Address of Owner's Agent [NAC 445B.295.1]

(Name)

(Address)

(City)

(State)

(Zip Code)

5. Physical Location of Stationary Source [NAC 445B.295.8]: (if no physical address, describe location, e.g., 4 miles south of I-80 at xx Interchange)

Township(s) _____ Range(s) _____ Section(s) _____

GENERAL COMPANY INFORMATION (CONTINUED)

6. Plant Manager or Other Appropriate Contact [NAC 445B.295.1]:

(Name) _____ (Title) _____

(Address) _____

(City) _____ (State) _____ (Zip Code) _____

(Telephone #) _____ (FAX #) _____ (E-mail address) _____

7. Responsible Official Name, Title and Address [NAC 445B.295.1]:

(Name) _____ (Title) _____

(Address) _____

(City) _____ (State) _____ (Zip Code) _____

(Telephone #) _____ (FAX #) _____ (E-mail address) _____

8. If records required under the operating permit will be kept at a location other than the source, specify that location [NAC 445B.295.7].

(Name) _____

(Address) _____

(City) _____ (State) _____ (Zip Code) _____

9. This application is submitted for (please check appropriate boxes below):

- This application is for a source subject to PSD requirements (40 CFR § 52.21).
- This application is for a source subject to the following NSPS requirements (40 CFR § 60):

- This application is for a source subject to the following NESHAP requirements (40 CFR § 63):

10. The application must contain, if applicable:

- a. For a proposed minor revision for which there is an increase of greater than 10 tons per year of a regulated air pollutant, include an environmental evaluation as required by NAC 445B.308 to 445B.313, inclusive [NAC 445B.295.8].
- b. For stationary sources subject to the provisions regarding new source review set forth in 42 USC §§7501 - 7515, inclusive (nonattainment areas), all information required by 42 USC §7503 [NAC 445B.3363.2(b)(3)].

GENERAL COMPANY INFORMATION (CONTINUED)

11. Will the construction occur in more than one phase? Yes No
12. If the construction will occur in more than one phase, please provide the projected date of the commencement for each phase of construction:
Phase 1: _____
Phase 2: _____
Phase 3: _____
13. Compliance Plan/Certification
- a. Attach a compliance plan, signed by the responsible official, that contains the following with respect to all applicable requirements:
- (1) A narrative description of the compliance status of the stationary source with respect to all applicable requirements. [NAC 445B.3368.2(h)(1)]
 - (2) A compliance certification by a responsible official stating that the stationary source will comply in a timely manner with any new applicable requirements that become effective during the operating permit term. Include a description of the test methods and the requirements for monitoring, enhanced monitoring, recordkeeping and reporting that will be used to comply with the new applicable requirements, fuel use, the rate of production, raw materials, and operating schedules which are used to determine the compliance status of the stationary source. [NAC 445B.3368.2(h)(2)]
 - (3) If the stationary source is not in compliance with any applicable requirements at the time the operating permit is issued, include a narrative description and a proposed schedule for achieving compliance which includes remedial measures, an enforceable sequence of actions with milestones, and a schedule to submit certified progress reports every six months. This schedule must be at least as stringent as that contained in any consent decree rendered by a federal court, a court of this state, or an administrative order which applies to the stationary source. [NAC 445B.3368.2(h)(3)III]
- b. A schedule for submission of compliance certifications during the term of the operating permit, to be submitted annually or more frequently to the Bureau of Air Pollution Control. [NAC 445B.3368.2(i)(3)]
14. A minor revision may be made to a Class I operating permit if the revision:
- a. Does not violate any applicable requirement;
 - b. Does not involve significant changes to the existing requirements for monitoring, reporting or recordkeeping;
 - c. Does not require or change:
 - (1) A determination of an emission limitation or other standard on a case-by-case basis;
 - (2) A determination of the ambient impact for any temporary source; or
 - (3) A visibility or increment analysis;
 - d. Does not establish or change a condition of the operating permit for which there is no corresponding underlying applicable requirement and which was requested in order to avoid an applicable requirement, including:
 - (1) A federally enforceable emissions cap; or
 - (2) An alternative emission limitation pursuant to 42 U.S.C. §7412(i)(5);
 - e. Is not a modification pursuant to any provision of 42 U.S.C. §§7401 to 7515, inclusive; and
 - f. Does not result in an increase in allowable emissions that exceeds any of the thresholds specified in NAC 445B.3425.1(f).

GENERAL COMPANY INFORMATION (CONTINUED)

15. **PROCEDURES FOR DEMONSTRATION OF MINOR REVISION AT A MAJOR PSD STATIONARY SOURCE.** Respond to the following criteria [NAC 445B.295.8]:
- a. Is the existing facility categorized as a PSD major stationary source (see 40 CFR Part 52.21(b)(1) for definition)? This determination must be based on the potential to emit as determined by the conditions contained in current permit(s). If the existing facility is not a PSD major stationary source, b and c are not required to be completed.
 - b. Describe whether a physical change or change in the method of operation is occurring as a result of the proposed revision(s). If a physical change or change in the method of operation is not occurring, c is not required to be completed.
 - c. Describe and provide detailed calculations that demonstrate that a major modification as defined in 40 CFR Part 52.21(b)(2) is not occurring. The demonstration must include, at a minimum:
 - (1) A summary of actual emissions for the entire stationary source;
 - (2) The proposed new potential to emit for the entire stationary source;
 - (3) A summary of any other contemporaneous emission increases and decreases; and
 - (4) The net emission increase or decrease. This must be less than the PSD significant emission rates defined in 40 CFR Part 52.21(b)(23).
16. **Application Submittal:**
Please remove the cover page, Table of Contents and General Information page and all Attachments of the application packet. Submit the remainder of the application packet as your formal application. This should consist of, at a minimum, the Class I-B Minor Revision Application cover page, the general Company Information, and Appendices 1 through 10.

Appendix 1

EMISSION UNIT APPLICATION FORMS

**(Industrial Process/Combustion Equipment/Storage Silo/
Liquid Storage Tank/ Surface Area Disturbance)**

**INDUSTRIAL PROCESS
APPLICATION FORM
CLASS I-B MINOR REVISION**

Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

- a. Type of equipment:
Jaw Crusher/Rotary Splitter (S2.007.1); Laboratory Drying Oven (2.008); Laboratory Drying Oven (S2.009); Pulverizer (S2.010.1); Pulverizer (S2.010.2); Laboratory Jaw Crusher (S2.046); Jaw Crusher/Rotary Splitter (S2.047); Laboratory Drying Oven (S2.048); Pulverizer (S2.049); Pulverizer (S2.050)
- b. Standard Industrial Classification (SIC) Code 1041
- b. Manufacturer of equipment:
S2.007.1 - Rocklab; S2.008 & S2.009 - Despatch; S2.010.1 & S2.010.2 - LabTechnics; S.2046 - Bico; S2.047 - Rocklab; S2.048 - Despatch, S2.049 & S2.050 - Herzog
- d. Model number: see below Serial number: see below *Equip. number: N/A
- | | | | |
|----------|---|-------------|---------------|
| S2.007.1 | - | 104610051, | 1203; |
| S2.008 | - | PW2-52-1E, | 138081; |
| S2.009 | - | PW2-52-1E, | 143754; |
| S2.010.1 | - | 800304, | 216896; |
| S2.010.2 | - | 800314, | 209276A; |
| S2.046 | - | “Badger”, | 71609; |
| S2.047 | - | 10461009, | 2243; |
| S2.048 | - | TDF2-52-1E, | 183534; |
| S2.049 | - | HP-M1500, | MA 13206-1-1; |
| S2.050 | - | HP-M1500, | MA 13367-1-1; |
- e. Date equipment manufactured: Unknown
- f. Please check one: Temporary (At the same location for less than 12 months)
 Stationary (At the same location for more than 12 months)
- g. For crushers: size output setting, check one: Primary (≥ 4 ")
 Secondary (< 4 " but ≥ 1 ")
 Tertiary (< 1 ")
- h. Please check if portable: Portable (transportable or movable within the confines of the stationary source)
- i. UTM Coordinates 4,570,013 meters N; 486,991 meters E; Zone 11
(Please specify NAD 27 or NAD 83)
- j. Basic equipment dimensions (feet): L N/A W N/A H N/A
- *The equipment number is the facility's own numbering system for this piece of equipment.

Section 2 - Design Rate/Operating Parameters

- a. Maximum design capacity (tons per hour) 0.4
- b. Requested operating rate (tons per hour)* _____
- c. Requested operating time: (time of day)* 00:00 to 24:00
Hours per day 24 Days per year 365
- d. Batch load or charge weight (tons) (if applicable) N/A
- e. Total hours required to process batch or charge (if applicable) N/A
- f. Maximum operating rate (tons per year) 3,504
- g. Requested operating rate (tons per year)* _____
- f. Type of material processed Lab Samples (Ore)
- g. Minimum moisture content N/A

*Note: Please complete if other than the maximum design capacity (tons per hour and tons per year) and/or the maximum hours of operation (24 hours per day, 8760 hours per year) are being requested. The permit will be limited to these values.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 3 - Fuel Usage

(This section only applies to fuel consumed/combusted within the process unit. Fuels consumed/combusted in combustion units are to be listed on the Combustion Equipment Application Form.)

Type of Fuel	Amount Used Per Hour	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)
Oil- Specify Type(s)					
	gallons				
	gallons				
Gasoline	gallons				
Propane	cubic feet				
Natural Gas	cubic feet				
*Waste Oil	gallons				
Other					

Type of Fuel	Amount Used Per Hour (tons)	Heat Content (specify in Btus)	Ash Content (% by weight)	Sulfur Content (% by weight)	Trace Elements (% by weight)	Percent moisture	Percent volatile matter	Percent fixed carbon
Coal - Specify Type(s)								

If more than one type of fuel is combusted, under this operating scenario please specify primary fuel and percentage on a maximum hourly and annual basis (if fuel blending is the primary fuel, identify percentages of each fuel blended). Attach additional information to this form if necessary.

*Firing of waste oil will require multi metals test to insure fuel is non-hazardous.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 4 - Pollution Control Equipment/Exhaust Stack Parameters (this section must be completed)

-Complete for emissions **exhausting through a stack, chimney or vent**: (baghouse, wet scrubber, cyclone, low NO_x burner, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 2)		
Stack height (feet from ground level)		
Stack inside diameter (feet)		
Temperature (°F) at design capacity		
Stack exit velocity (feet per second)		
Gas volume flow rate: Actual cubic feet per minute		
Gas volume flow rate: Dry standard cubic feet per minute		
Unusual stack charac- teristics (e.g. raincap, horizontal discharge)		

-Complete for emissions **not** exhausting through a stack, chimney or vent: (water sprays, fogging water sprays, pneumatic fogging system, high moisture ore, no control, etc.)

	Control #1	Control #2
Type of Control (See Note 1)		
Pollutant(s) Controlled		
Manufacturer		
Manufacturer's Guarantee (see Note 1)		
Note: Indicate the specific point(s) of emission control application for this emission unit. This must be provided as part of the process flow diagram as required in section 7 of the General Information section of the application form.		

Note 1: Specify "uncontrolled" if no pollution control device is installed.

Note 2: Manufacturer's guarantee of control efficiency must be attached to this form if the control efficiency claimed is greater than the control efficiency ratings provided in the Bureau of Air Pollution Control's Emissions Control Technology - Control Efficiency Ratings provided in Attachment 4.

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 5 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for NO_x and CO. Emissions for all other pollutants will be monitored periodically by annual stack test, daily opacity readings using Method 9 with weekly O&M baghouse checks and daily ΔP readings.)

Section 6 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary)

- (Eg., 1. At all times, including startup, shutdown and malfunction, the emission unit will be operated in a manner consistent with good air pollution control practices.
2. Water spray nozzles will be checked to verify proper operation and adequate water flow is present.)

Section 5 – Identify and Describe Compliance Monitoring or Activities

- Monitor and record the throughput rate/discharge of as fed ore, in tons for S2.007.1 - S2.010.2, and S2.046 – S2.050 each, on a daily basis.
- Monitor and record the hours of operation S2.007.1 - S2.010.2, and S2.046 – S2.050 each, on a daily basis.
- Monitor and record the hours of operation for S2.007.1 - S2.010.2, and S2.046 – S2.050 each, on an annual basis.
- Conduct and record an annual check of all bags contained in Baghouse DC-002.
- Conduct and record a weekly visible emission inspection on the exhaust stack of Baghouse DC-002; record the time of the survey and indicate whether any visible emission was observed.
- If any visible emissions are observed, conduct and record a Method 9 visible emissions test within 24 hours and perform any necessary corrective actions. The Method 9 visible emissions test will be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, Method 9.
- Conduct and record a weekly reading of differential pressure on Baghouse DC-002 and verify that it is within the range established by the baghouse manufacturer; record the time of the reading and the differential pressure. S2.007.1 - S2.010.2 and S2.046 – S2.050 each, will not be operated when the baghouse differential pressure falls outside the range established in the operation and maintenance guidelines.
- The required monitoring established above will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that S2.007.1 - S2.010.2 and S2.046 – S2.050 each, are operating:
 - The calendar date of any required monitoring.
 - The total daily throughput/discharge rate of as fed ore, in tons, for the corresponding date.
 - The total daily hours of operation for the corresponding date.
 - The corresponding average hourly throughput/discharge rate of as fed ore, in tons per hour. The average hourly throughput/discharge rate will be determined from the daily throughput/discharge rate and the total daily hours of operation recorded in (b) and (c) above.
 - Results and verification of the weekly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
 - The results of the weekly differential pressure readings for Baghouse DC-002.
 - Records and results of the annual check of bags contained in Baghouse DC-002.

Within 60 days from the date of expiration of this permit, but no earlier than 365 days from the date of expiration of this permit, the permittee will:

- Conduct and record the following performance tests on the exhaust stack of Baghouse DC-002 consisting of three valid runs at the maximum throughput.
 - A Method 201A and Method 202 test in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the director) for PM₁₀.
 - A Method 5 test with back-half catch in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the director) for PM.
- The Method 201A and Method 202 tests required may be replaced by a Method 5 test which includes the back-half catch. All particulate captured in the Method 5 tests with back-half performed under this provision shall be considered PM₁₀ emissions for determination of compliance with the emission limitations.
- Performance tests that are conducted below the maximum allowable throughput shall be

subject to the director's review to determine if the throughput during the performance tests were sufficient to provide adequate compliance demonstration. Should the director determine that the performance tests do not provide adequate compliance demonstration then, the director may order additional performance testing for the purpose of a compliance demonstration.

- Conduct and record a Method 9 visible emissions reading on the exhaust stack of Baghouse DC-002 concurrent with one of the three required Method 5 or Method 201A and Method 202 performance tests. Visible emissions reading shall use the procedures contained in 40 CFR Part 60, Appendix A, Method 9. The visible emissions reading must be conducted by a certified visible emissions reader for a period of 6-minutes. The opacity readings must be averaged such that compliance with both a 6-minute average and a 3-minute average is determined.
- Tests of performance and visible emissions readings must be conducted under such conditions as the director specifies to the permittee based on representative performance of the affected facility. The permittee shall make available to the director such records as may be necessary to determine the conditions of the tests of performance and visible emissions readings. Operations during periods of start-up, shutdown and malfunction must not constitute representative conditions of tests of performance and visible emissions readings unless otherwise specified in the application standard (NAC 445B.252.3).
- The permittee shall give notice to the director 30 days before the tests of performance and visible emissions readings to allow the director to have an observer present. A written testing procedure for the tests of performance and visible emissions reading must be submitted to the director at least 30 days before the tests of performance and visible emissions readings to allow the director to review the proposed testing procedures (NAC.445B.252.4).

**INDUSTRIAL PROCESS
APPLICATION FORM
CONTINUED**

Section 7 - Requested Emission Limits

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference) on Which Emissions Information is Based (attach supporting information if necessary)
Total Particulate Matter (PM)			
Particulates as PM ₁₀			
Sulfur Dioxide			
Carbon Monoxide			
Oxides of Nitrogen			
Volatile Organic Compounds			
Lead			
Hydrogen Sulfide			
Hazardous Air Pollutants (Specify Each Pollutant ¹)			
Other Regulated Pollutants (Specify ²)			

*Note: Alternative emissions limitations (e.g., lb/MMBtu, ppm, grains/dscf) may be requested by the applicant. If alternative emissions limitations are requested, please clearly describe the units in column 2 of Section 5 above.

¹A list of Hazardous Air Pollutants is contained in Attachment 4.

²Other Regulated Pollutants include any Class I or Class II substance subject to a standard adopted pursuant to 42 U.S.C. SS 7671-8671q, inclusive.

Appendix 8

**NARRATIVE
DESCRIPTION**

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**PROCESS FLOW
DIAGRAM**

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PLOT PLAN

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MAP

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Process Description

Mining

The first step in the recovery of gold is open pit mining. The Twin Creeks Mine maintains two active open pits. Overburden is removed from the ore-containing strata by blasting with ammonium nitrate and fuel oil explosive (ANFO), loaded by shovel into end-dump trucks, and removed to a storage area. Gold ores are then mined by conventional mining methods – ore is drilled, blasted with ANFO, loaded by shovel into end-dump trucks, and transported to the leach pad (for dump leaching) or the mill (for milling). At the pit a distinction is made between ore that is amenable to heap leaching (porous ore with fine grained particles), and ore that must be milled. Exploratory drilling is also conducted to determine the extent of the ore-bearing strata. Emissions associated with mining are fugitive in nature and are not included in this application.

Heap Leaching

Run-of-mine (ROM) ore is dumped onto leach pads (heaps), and a dilute buffered sodium cyanide solution is trickled or sprayed onto the heaps. Lime is also added to the pads to maintain the leachate at a high pH to prevent the loss of cyanide. The leachate (called pregnant solution) is collected in lined ponds, and pumped to the mill for carbon collection. Higher grade ore is transported by truck from the mine directly to the Juniper or Sage Mill for further processing. The Twin Creeks Mine operates three heap leach pads, the Osgood Pad (south), Izenhood Pad (north), and the Snowstorm & Sonoma Pad. The only emission units (EMUs) associated with heap leaching that is neither fugitive nor trivial or insignificant sources are the lime storage silos, one associated with each Pad (EMUs: S2.037, S2.038 – Snowstorm & Sonoma Pad; S2.039, S2.040 – Izenhood Pad; S2.041, S2.042 – Osgood Pad). Emissions from the silos occur during loading and unloading. Pebbled lime is loaded into each silo pneumatically from a delivery truck. The carrier air is provided by a compressor on the truck and is exhausted through a baghouse which is integral to the silos. Unloading is accomplished by a conveyor that dumps the lime into a loaded ore dump truck for spreading on the heap leaching pads. PM₁₀ emissions occur during each operation. Emissions during loading are controlled by the baghouse at an efficiency of 99%, while unloading emissions are controlled by 50% due to partial enclosure of the transfer.

Milling and Refining- Juniper Mill

At the Juniper Mill, ROM ore may be initially processed through the primary crushing circuit. ROM from the mine is transported by dump truck to the circuit. Ore is transferred by front-end loader to an ore hopper (EMU: PF1.006) which drops the ore to an apron feeder (EMU: PF1.007) which feeds a belt conveyor (EMU: PF1.008). The conveyor transfers the ore to the milling circuit where it is

ground in a full wet Semi-Autogenous Grinding (SAG) mill and ball mill, and routed to thickening circuit. Lime can be added to the circuit from a lime silo (EMU: S2.018, S2.019).

After thickening, the combined ore/solution goes to the carbon-in-leach (CIL) tanks where weak NaCN solution and carbon are added to the ore to begin the leaching process. Particulate matter emissions occur as a result of the dry ore transfers and lime handling; however, once the ore enters the SAG mill, the process is fully wet and there are virtually no ore-related particulate emissions thereafter.

The ore then enters cyanidation with the addition of water, dilute NaCN solution and lime, leaching and carbon adsorption in CIL, carbon-in-pulp (CIP) and carbon-in-columns (CIC) tanks. Leachate from the heap leaching process joins the process in the CIC tanks. The carbon is then stripped with steam and is reactivated in a 10.5 MMBTU/hr kiln (EMU: S2.002 – kiln drum emissions, S2.003 – combustion emissions).

The oxide slurry from the Juniper Mill is combined with the Sage Mill autoclave discharge at the neutralization tanks. At this point in the process, the slurry will be routed to the Carbon-in-Leach (CIL) circuit, where additional cyanide is added to the leach gold values from the oxidized slurry. Activated carbon is introduced in a counter-current flow in the CIL tanks to remove the gold from the solution and concentrate it on the carbon. The loaded carbon will be routed to the carbon stripping and reactivation circuit where the carbon will be made available for subsequent re-use.

The pregnant solution from the carbon stripping circuit will be routed to six new electrowinning (EW) cells where gold will be plated out onto cathodes. The barren solution from the EW cells will then be heated with a strip circuit solution eater heated by steam from two 6.3 MMBTU/hr boilers (EMUs: S2.020, S2.021) that will replace the existing 6 MMBTU/hr boiler. The boilers will be a source of minor products-of-combustion emissions.

The carbon from the stripping vessel will be “reactivated” by washing it in acid, and then sent to an existing 10.5 MMBTU/hr natural gas-fired carbon reactivation kiln (EMU: S2.002, S2.003) where it will be dried, and heated, to expose new interstices. The reactivated carbon will be cooled by quenching upon exit from the kiln, so all downstream carbon handling will be a wet process, thus particulate emissions will be negligible.

The gold plated cathodes will be sent to one of two existing electrically heated mercury retorts (AMAS S2.004, S2.005), which are essentially “metallurgical stills” that separate mercury vapor from the gas stream by controlled temperature condensation. The gold will be routed to an induction (electric) smelting furnace

(EMU: S2.001) in which special fluxes are introduced. The fluxes react with trace metals to form slags which can then be skimmed off from the smelting furnace separate from the gold. In this manner, much of the trace metals in the ore are removed from the gold. The gold is poured into molds, cooled, and shipped off-site.

Slag from the smelting furnace may be transferred through the existing slag crushing circuit where it is sent through a jaw crusher (EMU: PF1.009), hopper (EMU: PF1.010), vibrating feeder (EMU: PF1.011), roll crusher (EMU: PF1.012), screen (EMU: PF1.013), electrostatic precipitator (EMU: PF1.014) and gyratory crusher (EMU: PF1.015). Slag is processed through the circuit and reintroduced to the furnace or placed in the SAG Mill for enhanced gold capture. Particulate emissions from the slag circuit are routed to and controlled by a baghouse.

Milling of Sulfide Ore- Sage Mill

Unoxidized mill-grade ore is mined and then transported and placed in an ore stockpile located adjacent to the Juniper Mill and Sage Mill. Unoxidized ore is fed by FEL from the ore stockpile to one of two grizzly/hoppers (EMUs: PF1.018, PF1.019). The apron feeders beneath the grizzlies (EMUs: PF1.020, PF1.021), and the subsequent transfers to a conveyor belt (EMU: PF 1.022) carry the ore into the enclosed Sage Mill Building. Once inside the Sage Mill Building, the ore will be transferred from the conveyor belt to a fully wet SAG mill. From the SAG Mill on through the remainder of the mill process, the ore will be fully wet and will not be a source of particulate emissions. The output of the SAG mill will be screened, and undersize will be pumped to a ball mill grinding circuit.

The product of the wet ball mills is thickened prior to being acidified, if necessary, with a sulfuric acid addition. Using waste steam heat from two flash vessels, the thickened slurry will be pre-heated in two heater vessels, and will then be oxidized in one of two continuous-feed autoclave vessels (EMUs: S2.028, S2.029). The autoclave vessels are key elements in the Sage Mill. The vessels allow rapid oxidation of the sulfur in the ore, thereby liberating the available gold and making it available for subsequent recovery. The autoclaves require input streams of oxygen, steam, and/or cooling water; and the exhaust gases from the autoclave will be controlled with venture scrubbers.

The oxygen needed for the Sage Mill autoclaves will be provided by a self-contained, electrically powered cryogenic (refrigerative) oxygen plant. The Sage Mill oxygen plant draws in ambient air; compresses it and cools it, and then will enrich the oxygen content using a molecular sieve to separate out carbon dioxide gas and water vapor. Heat from the oxygen plant dissipates with a forced draft cooling tower, whose only air emissions will be water vapor. Will the vast majority of the oxygen at the oxygen plant is generated in the gaseous state; a small amount of oxygen will be further cooled to liquid and stored for use in the event that the oxygen plant is temporarily out of service. In order that the liquid oxygen

can be returned to gaseous state, a 16 MMBtu/hr natural gas-fired heater is available to re-heat the liquid oxygen (EMUs: S2.036). The steam needed for the autoclaves is produced by two 48 MMBtu/hr natural gas-fired steam generators (EMUs: S2.030, S2.031).

From the autoclave the ore is routed in slurry from to flash vessels where pressure is reduced, and heat is dissipated, to raise steam that is used in the heater vessels. Additional cooling of the slurry is accomplished in the slurry coolers, which will dissipate heat through a cooling tower. The Sage Mill slurry will then be routed to three neutralization tanks, where it can be mixed with slurry from the Juniper Mill. Lime is discharged from the silos by fully enclosed screw conveyors to a lime slaker. In order to prevent moisture from entering the lime silos, a small air evacuator will be located at the slaker; the air evacuator will not be a source of dust emissions. Slaked lime is then routed to a storage tank, and then to each of the three neutralization tanks, as needed.

Laboratories

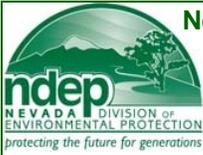
The Twin Creeks Mine maintains an on-site analytical laboratory. The lab operates a sample prep circuit which consists of a jaw crushers (EMU: S2.007.1, S2.046, S2.047), electric drying ovens (EMUs: S2.008, S2.009, S2.048) and pulverizers (EMU: S2.010.1, S2.010.2, S2.049, S2.050). Exhaust from this equipment is all routed to single tube jet dust collector to control particulate emissions generated during operation of the circuit. In addition, the laboratory operates five electrically heated assay furnaces (EMUs: S2.012, S2.013, S2.014, S2.015, S2.016) whose exhausts are routed to a single cartridge filter control device to control particulate emissions generated in the furnaces.

Appendix 10

OPERATING PERMIT TEMPLATE

Please provide a draft operating permit with appropriate conditions.

An electronic copy of the operating permit template is available upon request.



BUREAU OF AIR POLLUTION CONTROL

CLASS I NON-PERMIT EQUIPMENT LIST

Appended to Newmont Mining Corporation, Twin Creeks Mine #AP1041-0723.02

Section VI. Specific Operating Conditions (continued)

F. Emission Units #'s S2.006 – S2.011 and S2.046 location North 4570.01 km, East 486.99 km, UTM (Zone 11)

Table with 2 columns: ID and Description. Rows include System 06 - Laboratory Sample Preparation Circuit and various equipment like Jaw Crusher/Rotary Splitter, Laboratory Drying Oven, and Pulverizer.

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Equipment

Emissions from S2.007.1 – S2.010.2 and S2.046 – S2.050 shall be ducted to a control system consisting of a Baghouse DC-002 with 100% capture and a maximum volume flow rate of 22,000 actual cubic feet per minute (acfm).

Stack Parameters – Baghouse (DC-002)

- a. Stack Height – 12 Feet
b. Stack Inside Diameter – 2 Feet
c. Stack Exit Gas Temperature – Ambient
d. Stack Exit Velocity: 120 feet per second

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Emission Limits

a. On and after the date of startup of S2.007.1 – S2.010.2 and S2.046 – S2.050, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of Baghouse DC-002, the following pollutants in excess of the following specified limits:

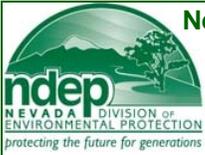
- (1). NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 3.77 pound per hour.
(2). NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 3.77 pound per hour.
(3). NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from the Baghouse DC-002 stack discharge will not equal or exceed 20% in accordance with NAC 445B.22017.

b. NAC 445B.22033 Federally Enforceable SIP Requirement

- (1) The discharge for S2.007.1, S2.010.1, S2.010.2, S2.046, S2.047, S2.049 and S2.050 will not exceed 2.22 pounds per hour, each, based on the maximum throughput as limited by Section VI,F, 3, a.
(2) The discharge for S2.008, S2.009 and S2.048 will not exceed 2.58 pounds per hour, each, based on the maximum throughput as limited by Section VI,F, 3, a.

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters



BUREAU OF AIR POLLUTION CONTROL

CLASS I NON-PERMIT EQUIPMENT LIST

Appended to Newmont Mining Corporation, Twin Creeks Mine #AP1041-0723.02

- a. Maximum allowable throughput for S2.006, S2.007, S2.007.1, S2.010.1, S2.010.2 and S2.046, each, will not exceed **0.4** ton of **Lab Samples ore** per any one-hour period; Maximum allowable throughput for S2.008 and S2.009, each, will not exceed **0.5** ton of **Lab Samples ore** per any one-hour period.

Section VI. Specific Operating Conditions (continued)

F. Emission Units # S2.007.1 – S2.010.2 and S2.046 – S2.050 (continued)

- b. Hours
S2.007.1 – S2.010.2 and S2.046 – S2.050 each, may operate individually, **8760** hours per calendar year.
4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
 - a. Monitoring, Record keeping and Compliance
Permittee will:
 - a. Monitor and record the weight rate of the batches or charges load of ore and/or waste ore to S2.007.1 – S2.010.2 and S2.046 – S2.050, each, on a daily basis.
 - b. Monitor and record the hours of operation of S2.007.1 – S2.010.2 and S2.046 – S2.050 on a daily basis.
 - c. NAC 445B.308 Part 64 Compliance Assurance Monitoring (CAM) Requirements
 - (1). Conduct and record a weekly visible emission inspection on the exhaust stacks of **Baghouse DC-002** while **System 06** is operating; record the time of the survey and indicate whether any visible emission was observed. If any visible emissions are observed, conduct and record a Method 9 visible emissions test within 24 hours and perform any necessary corrective actions. The Method 9 visible emissions test will be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, Method 9.
 - (2). Conduct and record a daily pressure drop across of **Baghouse DC-002**. Record any occurrences when the pressure drop falls outside the manufacturer's recommended operating range and record any corrective actions taken. Daily records must show that observations were made, and records of any corrective actions taken. An excursion is defined as a pressure drop less than 0.5 pound per square inch (psi) or greater than 5.0 psi.
 - d. Conduct and record a Method 5 and Method 201 or 201A (or an equivalent method as approved by the Director) performance test for PM and PM₁₀ on the exhaust stack of **Baghouse DC-002** consisting of three valid runs within 180 days prior to the date expiration of this operating permit. The Method 201 or 201A emissions tests must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201 or 201A. The Method 5 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5.
 - a. NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program Shielded Requirements

No Shielded Requirements

Appendix 11

APPLICATION CERTIFICATION

Please complete the certification checklist for all forms and information provided in your application submittal. The responsible official must sign and date the application certification found in Appendix 9. *If the application is signed by a person other than the responsible official, as defined in NAC 445B.156, the application will be returned as incomplete.*

Note: According to NAC 445B.156, **Responsible Official** means:

1. For a corporation:
 - (a) A president;
 - (b) A vice president in charge of a principal business function;
 - (c) A secretary;
 - (d) A treasurer; or
 - (e) An authorized representative of such a person who is responsible for the overall operation of the facility and who is designated in writing by the officer of the corporation and approved in advance by the director.
2. For a partnership or sole proprietorship: a general partner or the proprietor, respectively.
3. For a municipality or a state, federal or other public agency: a ranking elected official or a principal executive officer, including, for a federal agency, a chief executive officer who has responsibility for the overall operations of a principal geographic unit of the agency.
4. For an affected source: the designated representative or his alternate, as defined in 42 U.S. C. § 7651 a (26).

APPLICATION CERTIFICATION

Certification of application content consisting of the following:

(Please check each of the appropriate boxes to indicate the information provided in your application submittal)

General Company Information

General Company Information Form

Emission Unit Application Forms (Appendix 1)

- Industrial Process Application Form(s)
 Combustion Equipment Application Form(s)
 Storage Silos Application Form(s)
 Liquid Storage Tank Application Form(s)
 Surface Area Disturbance Form(s)

Insignificant Emissions Unit Information (Appendix 2)

Insignificant Emissions Unit Information Form(s)

Facility-Wide Applicable Requirements (Appendix 3)

Table 1 - Facility-Wide Applicable Requirements

Streamlining and Shield Allowance (Appendix 4)

Streamlining Demonstration

Facility-Wide Potential To Emit Tables (Appendix 5)

- Table 1 - Facility-Wide Potential To Emit
 Table 2 - Insignificant Activities Potential To Emit

Detailed Emissions Calculations (Appendix 6)

Detailed Emissions Calculations Provided

Emissions Cap Information (Appendix 7)

Emissions Cap Information Provided

Process Narrative, Process Flow Diagram, Plot Plan, Map, Dust Control Plan (Appendix 8)

- Process Narrative Provided
 Flow Diagram Provided
 Plot Plan Provided
 Map Provided
 Dust Control Plan Provided

Dispersion Modelling Files (Appendix 9)

Dispersion Modeling Provided

Draft Operating Permit (Appendix 10)

Draft Operating Permit Provided

Application Certification (Appendix 11)

Application Certification

Additional Information Requested by the Director

Any Additional Information Required by the Director

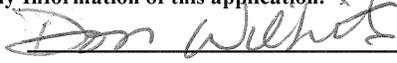
PLEASE NOTE THE FOLLOWING REQUIREMENTS WHICH APPLY TO PERMIT APPLICANTS DURING THE APPLICATION PROCESS:

- A. A permit applicant must submit supplementary facts or corrected information upon discovery [NAC 445B.297.1(b)].
- B. A permit applicant is required to provide any additional information which the Director requests in writing within the time specified in the Director's request [NAC 445B.297.1(c)].
- C. Submission of fraudulent data or other information may result in prosecution for an alleged criminal offense (NRS 445B.470).

APPLICATION CERTIFICATION (continued)

CERTIFICATION: I certify that, based on information and belief formed after reasonable inquiry, the statements contained in this application are true, accurate and complete.

CERTIFICATION: I certify that the proposed modification complies with the criteria for a minor revision set forth in Section 14 of General Company Information of this application.



Signature of Responsible Official

Don Wilhite - Process Manager

Print or Type Name and Title

2/21/2012

Date

ATTACHMENT 1

LIST OF APPROVED INSIGNIFICANT ACTIVITIES

NAC 445B.288.2

Insignificant Activities

The following insignificant activities have been approved by the director in accordance with NAC 445B.288.4:

- Crematory Incinerators processing <175 tons per year (1/24/96)
- Autoclave re-bricking (3/1/96)
- Prill silos <100,000 tons/year (3/1/96)
- Parts cleaners - cold cleaning only (3/1/96)
- Storage tanks, as follows: (3/1/96)

<u>Emission Unit</u>	<u>Tank size (gallons)</u>	and	<u>Vapor Pressure (PSIA)</u>
non-HAP VIL*	<40,000		<0.60
non HAP VIL	<200,000		<0.13
HAP VIL	<40,000		<0.15
HAP VIL	<200,000		<0.03
Liquid NaCN	any size		N/A

*VIL - volatile inorganic liquid

- Portable screening plant, processing 100,000 tons of metallic mineral, in less than 6 months, with 4% moisture content (3/5/96)
- Carbon strip/electrowinning circuit, with a total liquid surface area of less than 610 square feet and a solution flow rate less than 400 gallons per minute (6/12/96)
- Mine analytical laboratory fume hoods (6/12/96)
- Mine metallurgical laboratory fume hoods (6/12/96)
- Landfarming of not more than 270,000 tons per year of diesel-based hydrocarbon contaminated soil, with a concentration of less than 50,000 ppm Total Petroleum Hydrocarbons. (6/12/96)
- Landfarming of not more than 338 tons per year of gasoline-based hydrocarbon contaminated soil, with a concentration of less than 50,000 ppm Total Petroleum Hydrocarbons. (6/12/96)
- Sand washing operations, consisting of material unloading by continuous drop feed on a feed conveyor, double deck screen/wash with two feed conveyors to the materials stockpile, processing the following: (1) less than 765,000 tons per year at the following moisture contents: material unloading and conveyor belt at least 1.5% moisture, screen and tow conveyor belts at least 7.0% moisture; (2) less than 805,000 tons per year at the following moisture contents: material unloading and conveyor belt at least 1.5% moisture, screen and tow conveyor belts at least 7.5% moisture; (3) less than 844,000 tons per year at the following moisture contents: material unloading and conveyor belt at least 1.5% moisture, screen and two conveyor belts at least 8.5% moisture. (6/12/96)
- Lime silo, located at Newmont Gold Company's Rain Project, 127 ton storage capacity, equipped with silo discharge auger which is physically limited to 1.50 tons per hour of discharge of lime (13,140 tons per year). (7/13/98)
- Chemistry laboratory at the HWAD Main Base. (8/24/98)
- Transloading facility for lime, consisting of railcar transfer to screw conveyor, screw conveyor to belt conveyor, belt conveyor to truck, transferring 80 tons per hour, for Continental Lime Inc.'s Dunphy Transloading facility. (1/13/99)
- Newmont Gold Company - Shotcrete Plant described as follows: two (2) cement silo augers, cement metering bin, mix box containing washed pea gravel and sand, and auger to shotcrete transport truck. Shotcrete plant throughput is physically limited by shotcrete discharge auger, at 25.6 tons per hour (19.84 tons per hour

gravel/sand and 5.76 tons per hour cement). (4/27/99) (revised 2/20/01)

- SmartAsh 100 disposal unit, specified as follows: 55 gallon steel open head drum, stainless steel lid, plated tubular steel frame, 2 blowers, for burning absorbent materials, paper waste, wood by-products, rags, used filters, waste oil, and other **non-hazardous** waste at a rate of 50 pounds per hour. (5/7/99)
- One evaporator/condenser located at Quebecor Printing Nevada's Fernley facility with a maximum design capacity of 2000 gallons per day. (11/30/99)
- Transloading facility for flyash, consisting of railcar transfer to screw conveyor, screw conveyor to belt conveyor, belt conveyor to truck, transferring 80 tons per hour, for Continental Lime Inc.'s Dunphy Transloading facility. (12/1/99)
- Battery decasing, decanning, washing and waste water treatment operations, located at NAVSEA-HWAD. Combined mercury-zinc, mercury-cadmium and silver-zinc battery process rate not to exceed 1000 batteries per hour and 260,000 batteries per year. Only one battery type may be processed at any given time. Mercury content not to exceed 0.552 pounds per battery. Total uncontrolled mercury emissions from the battery decasing, decanning, washing and wastewater treatment operations not to exceed 0.1 pounds per hour and 26 pounds per year. (5/15/2000)
- Crawford Animal Crematories - Model CB400 and a Model 500P to be located at the Silver Hills Vet Hospital in Carson City. The crematories are to be used for the destruction of animal carcasses only. (12/12/00)
- MCI WorldCom - Six Generac 96A04605-S, 60kW, diesel generators - One each at the following locations: Argenta, Lander County; Carlin, Elko County; Clover Valley, Elko County; Shafter, Elko County; Stonehouse, Humboldt County. (2/20/01)
- Newmont Gold Company's Portable Cement Mixing Plant consisting of - a mix tank for generating cement slurry, and an auger with a maximum throughput of 700 pounds of cement per minute. (2/20/01)
- Barrick Goldstrike Mines, Inc., Pilot Scale Fluidized Bed Roaster w/ Integral Quenching Eductor. Maximum material throughput of 45 pounds per hour with a roaster operating temperature range between 700° and 1200° F. (4/3/01)
- Industrial Metals & Mining, LLC's ore processing operation located in Silver Springs, Nevada consisting of - weigh and assaying of incoming ore, ore roasting, ore sizing, and ore loading to liquid process solution system. (8/10/01)
- Oglebay Norton Industrial Sands, Inc.'s portable sand transloading conveyor. (10/10/01)
- Paramount Nevada Asphalt Company's emulsified asphalt plant. (5/22/02)
- Crawford Animal Crematories, Model C500P natural-gas fired crematory, 75 pounds/hour capacity, located at Great Basin Pet Crematory in Elko. The crematory is to be used for the destruction of animal carcasses only. (10/28/02)
- Bently Nevada, LLC, screen printing operation, manual, processing <50 lb/hr. (12/18/02)
- RMC Nevada, Inc., portable aggregate stacking conveyor which will convey 50 thousand tons of washed sand with approximately 8% moisture into railcars. The conveyor is powered by a 115 h.p. engine. (1/16/03)
- Explosive ordnance training for crime and terrorist scene investigators (post-blast analysis) - An inoperable vehicle (battery and fluids removed) will be destroyed by explosion of 500 pounds of ammonium nitrate per event, not to exceed eight (8) events per 12 month rolling period. Activity will be conducted on a secure range closed to public access on NAS Fallon. (6/25/03)
- Bently Nevada, LLC, potting ovens - electric-heated, components placed in potting cups or trays and potting compound manually poured into the cups or trays. Trays of components are then placed into the potting ovens for curing. (7/24/03)
- Bently Nevada, LLC, transducers-related ovens - used for curing small quantities of epoxy placed on wires, cables, and electrical leads. Average temperature of each oven is 135 to 150 degrees F. (7/24/03)

- Bently Nevada, LLC, plastic mold extruders - feeding of solid plastic beads which are melted and extruded into molds. The barrel of the extruder holds 2 pounds of plastic beads, which are heated to 700 degrees F. Mold temperature is 360 degrees F. (7/24/03)
- Bently Nevada, LLC, CNC lathes and mills, using water-based coolant and oil. (7/24/03)
- Bently Nevada, LLC, conformal coating - conformal coating is the process of spraying a dielectric material onto circuit boards or components. Curing takes places in a conformal coating machine. (7/24/03)
- Bently Nevada, LLC, solder paste application/surface mount/reflow oven - approximately 0.5 gram of solder paste is applied from a 700 gram hand-held tube to each printed circuit board, then a machine wipes the solder paste over the board through a stencil. Components are then surface mounted onto the printed circuit board with a pick and place machine. The surface mounted components are then joined to the printed circuit board inside an electric-powered reflow oven. (7/24/03)
- Bently Nevada, LLC, evaporator - dirty stencils that are used for solder paste application are soaked and cleaned in a bath of water and detergent (Smart Sonic brand). (7/24/03)
- Nevada Cement Company, cooling tower, 300 gallon per minute capacity, with a maximum Total Dissolved Solids concentration of 500 ppm. (7/28/03)
- Newmont Mining Corporation, Lone Tree Mine, Process Cooling Tower (4 cells), NC7043, 3,006 gallons per minute, with a maximum Total Dissolved Solids concentration of 1,680 ppm. (9/4/03)
- Newmont Mining Corporation, Lone Tree Mine, Lube System Cooling Tower (1 cell), NC4001, 540 gallons per minute, with a maximum Total Dissolved Solids concentration of 1,100 ppm. (9/4/03)
- Newmont Mining Corporation, Lone Tree Mine, Oxygen Plant Cooling Tower, (2 cells), NC8012, 1,900 gallons per minute, with a maximum Total Dissolved Solids concentration of 1,480 ppm. (9/4/03)
- Department of the Air Force, Nellis Air Force Base, Nellis Test and Training Range, 17 fuel dispensing operations, designated as TTR1 through TTR12, FDS006 and FDS007, and FDS016 through FDS018. (10/10/03)
- Department of the Air Force, Nellis Air Force Base, Nellis Test and Training Range, 11 fuel loading operations, designated as FLD004 through FLD014. (10/10/03)
- Quebecor World, flexographic plate maker, using no more than 605 gallons per year of VOC product. (11/7/03)
- Quebecor World, five (5) evaporative cooling towers, with a combined water recirculation rate of 6,052 gallons per minute, and a maximum Total Dissolved Solids Concentration of 12,000 ppm. (11/7/03)
- Nevada Wood Preserving, cooling tower, 150 gallons per minute, with a maximum Total Dissolved Solids concentration of 24,000 ppm. (11/20/03)
- Queenstake Resources USA, Inc., three roaster cooling towers, 1,500 gallons per minute each, with a maximum Total Dissolved Solids concentration of 12,000 ppm. (12/9/03)
- Queenstake Resources USA, Inc., oxygen plant cooling tower, 2,699 gallons per minute, with a maximum Total Dissolved Solids concentration of 150 ppm. (12/9/03)
- Newmont Mining Corporation, Twin Creeks Mine, lube system cooling tower, 1,208 gallons per minute, with a maximum Total Dissolved Solids concentration of 2,170 ppm. (12/9/03)
- Newmont Mining Corporation, Twin Creeks Mine, laboratory sample reject bin, processing no more than 2 tons per hour. (12/9/03)
- Orica USA, Inc. prill transloading facility with two silos of 50,000 tons per year of throughput each located in Humboldt County, NV. Only one silo can operate at a time. (3/15/04)
- Queenstake Resources USA, Inc. portable concrete mixing plant located at the Jerritt Canyon Mine with a maximum throughput rate of 200 yd³ of concrete per hour and 60,000 yd³ of concrete per year. (5/28/04)

- Starbucks Coffee Company, Minden Facility, cooling tower, 125 gallons per minute, with a maximum Total Dissolved Solids concentration of 12,000 ppm (5/28/04)
- Global West Industries, LLC feldspar/bentonite silo located in Lovelock, NV with a maximum throughput rate of 10 tons per hour (8/06/04)
- Barrick Goldstrike Mines, Inc., Temporary Shotcrete Plant; maximum shotcrete material throughput rate of 36 yd³ per hour and 13,140 yd³ per year (8/13/04)
- Queenstake Resources USA, Inc. laboratory assay furnaces located at the Jerritt Canyon Mine with a maximum throughput rate of 100 assays of flux and ore per hour. (12/14/04)
- Barrick Goldstrike Inc. Meikle & Autoclave cooling towers, and Autoclave acidulation tanks located at the Goldstrike Mine; TDS for each of the cooling towers is 2,000 ppm and the maximum throughput rate of sulfuric acid (H₂SO₄) for each of the acidulation tanks is 413.0 gallons per hour. (12/28/04)
- Nevada Wood Preserving, Baltimore Aircoil cooling tower, 150 gallons per minute, with a maximum Total Dissolved Solids concentration of 24,000 ppm. (5/18/05)
- Taiyo America, Inc. Argus Spray/Oven Unit, Model No. PC9324B/PC9624 (6/6/05)
- Robinson Nevada Mining Company, a by-product molybdenum plant as an adjunct to its copper processing facility at Ruth, Nevada (7/19/05)
- James Hardie Building Products, Inc. Additive 2 Production Unit - consists of one 8,800 gallon storage tank for non-VOC liquids; two 1,920 gallon mixing tanks with condensers; separation column/evaporator; one 8,800 gallon by-product tank; one 1,920 gallon product storage tank; one 500 gallon acid storage tank; one 2MMBtu/hr natural gas fired boiler. (7/19/05, Modified 10/12/05)
- Chromalloy Nevada. 50 Belts and booths processing 3 parts per hour each and 30 Unihone Grit Blast Cabinets undergoing 1 hopper change per day each (8/22/05).
- Nevada Department of Corrections – Northern Nevada Correctional Center. Wood Fuel Handling System for the Wood Fired Steam Boiler System. Wood Fuel Handling System consists of a submerged auger, flat bed conveyor, inclined conveyor, and fuel metering bin with a maximum process throughput of 2.375 tons of wood chips per hour.(1/25/06). Cooling Tower for Wood Fired Steam Boiler System. (1/18/06)

ATTACHMENT 2
NAC 445B.288

NAC 445B.288 Operating permits: Exemptions from requirements; insignificant activities. (NRS 445B.210, 445B.300)

1. The following categories of sources are not required to obtain an operating permit:

(a) A source that would otherwise be required to obtain an operating permit solely because it is subject to 40 C.F.R. Part 60, Subpart AAA, Standards of Performance for New Residential Wood Heaters.

(b) A source that would otherwise be required to obtain an operating permit solely because it is subject to 40 C.F.R. Part 61, Subpart M, National Emission Standard for Asbestos, section 61.145.

(c) Agricultural equipment used in the normal operation of a farm, other than agricultural equipment which is classified as, or located at, a source for which a permit is required under Title V of the Act or which is subject to any standard set forth in 40 C.F.R. Part 60 or 61.

2. The following emission units are considered to be insignificant activities unless the emission unit is otherwise subject to another specific applicable requirement, including, without limitation, any requirement or standard set forth in 40 C.F.R. Part 60, 61 or 63:

(a) Any equipment or other contrivance used exclusively for the processing of food for human consumption.

(b) An incinerator which has a rated burning capacity that is less than 25 pounds per hour.

(c) An emission unit that has a maximum allowable throughput or batch load rate of less than 50 pounds per hour, unless the emission unit directly emits, or has the potential to emit, a hazardous air pollutant.

(d) A storage container for petroleum liquid, or a storage facility for volatile organic liquid, that has a capacity of less than 40,000 gallons.

(e) Except as otherwise provided in paragraphs (f), (g) and (h), air-conditioning equipment or fuel-burning equipment that, individually, has a rating which is:

(1) Less than 4,000,000 Btu's per hour; or

(2) Equal to or greater than 4,000,000 Btu's per hour if the equipment operates less than 100 hours per calendar year.

(f) A portable internal combustion engine that has a rating for output which is:

(1) Less than 500 horsepower; or

(2) Equal to or greater than 500 horsepower if the engine operates less than 100 hours per calendar year.

(g) A stationary internal combustion engine that has a rating for output which is:

(1) Less than 250 horsepower; or

(2) Equal to or greater than 250 horsepower if the engine operates less than 100 hours per calendar year.

(h) An emergency generator. Except as otherwise provided in this paragraph, an emergency generator qualifies as an insignificant activity pursuant to this paragraph only if the emergency generator is an internal combustion engine that is used to generate electrical power to maintain essential operations during unplanned electrical power outages. An emergency generator that is owned or operated by a Class II source and whose potential to emit is calculated on the basis of less than 500 hours of operation does not qualify as an insignificant activity.

3. If an emission unit is considered an insignificant activity and is subject to a limitation on its hours of operation pursuant to subsection 2, the owner or operator of the emission unit shall maintain an operating log of the hours of operation of the emission unit. The operating log must be maintained at the site of the emission unit and made available to the director upon his request. The owner or operator shall retain the operating log for not less than 5 years.

4. The director may, upon written request and a satisfactory demonstration by an applicant, approve an emission unit as an insignificant activity if the emission unit is not otherwise subject to another specific applicable requirement, including, without limitation, any requirement or standard set forth in 40 C.F.R. Part 60, 61 or 63. To be approved as an insignificant activity, an emission unit must meet the following criteria:

(a) The operation of the emission unit, not considering controls or limits on production, type of materials processed, combusted or stored, or hours of operation, will not result in:

(1) Emissions of a hazardous air pollutant that exceed 1 pound per hour or 1,000 pounds per year, as appropriate;

(2) Emissions of regulated air pollutants that exceed 4,000 pounds per year;

(3) Emissions of regulated air pollutants that exceed any other limitation on emissions pursuant to any other applicable requirement; or

(4) Emissions of regulated air pollutants that adversely impact public health or safety, or exceed any ambient air quality standards; and

(b) The emissions from the emission unit are not relied on to avoid any other applicable requirements.

If there are multiple emission units, the director may, after considering the impact of the combined emissions of multiple emission units, determine whether to approve one or more of the specific emission units as an insignificant activity.

5. Except as otherwise provided in NAC 445B.094, emissions from insignificant activities, as determined pursuant to this section, must be included in any determination of whether a stationary source is a major source.

6. A stationary source is not required to obtain an operating permit pursuant to NAC 445B.001 to 445B.3485, inclusive, for any emission unit determined to be an insignificant activity in accordance with this section, as long as the stationary source is not otherwise subject to any other requirement to obtain an operating permit under Title V of the Act. Such an exclusion from the requirements relating to permitting is not an exclusion or exemption from any other requirement set forth in NAC 445B.001 to 445B.3485, inclusive, relating to the operation of the emission unit determined to be an insignificant activity.

7. A stationary source which consists solely of insignificant activities as determined pursuant to this section and which is not otherwise subject to any other requirement to obtain an operating permit under Title V of the Act is not required to obtain an operating permit to operate as a stationary source. Such an exclusion from the requirements relating to permitting is not an exclusion or exemption from any other requirement set forth in NAC 445B.001 to 445B.3485, inclusive, relating to the operation of the stationary source or any insignificant activity that is a part of the stationary source.

[Environmental Comm'n, Air Quality Reg. § 3.1.8, eff. 11-7-75]—(NAC A 10-22-87; 12-8-89; 9-19-90; 11-23-92; 12-13-93, eff. 11-15-94; 3-29-94, eff. 11-15-94; 10-30-95; R117-00, 6-1-2001)

ATTACHMENT 3

LIST OF TRIVIAL ACTIVITIES

STATE OF NEVADA TRIVIAL ACTIVITIES LIST

The following types of activities and emission units may be presumptively omitted from Class I applications. Certain of these listed activities include qualifying statements intended to exclude many similar activities. Trivial activities are emission units without specific applicable requirements under Title V of the Clean Air Act Amendments of 1990 and with extremely small emissions. There are also no applicable State Implementation Plan requirements for these activities. As of June 12, 1998, cooling towers have been removed from this list and must be treated as a permitted item or insignificant activity.

- ☐ Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources
- ☐ Air-conditioning units used for human comfort that do not have applicable requirements under Title VI of the CAA
- ☐ Ventilating units used for human comfort that do not exhaust air pollutants into the ambient air from any manufacturing/industrial or commercial process
- ☐ Non-commercial food preparation
- ☐ Consumer use of office equipment and products, not including printers or businesses primarily involved in photographic reproduction
- ☐ Janitorial services and consumer use of janitorial products
- ☐ Internal combustion engines used for landscaping purposes
- ☐ Laundry activities, except for dry-cleaning and steam boilers
- ☐ Bathroom/toilet vent emissions¹
- ☐ Emergency (backup) electrical generators at residential locations
- ☐ Tobacco smoking rooms and areas
- ☐ Blacksmith forges
- ☐ Facility maintenance and upkeep activities (e.g., groundskeeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification¹
- ☐ Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or degreasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification
- ☐ Portable electrical generators that can be moved by hand from one location to another. (NOTE: "Moved by hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device)
- ☐ Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic
- ☐ Brazing, soldering and welding equipment, and cutting torches related to manufacturing and construction activities that do not result in emission of HAP metals¹

¹Brazing, soldering and welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals are more appropriate for treatment as insignificant activities based on size or production level thresholds.

STATE OF NEVADA
TRIVIAL ACTIVITIES LIST

- Air compressors and pneumatically operated equipment, including hand tools
- Batteries and battery charging stations, except at battery manufacturing plants
- Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized
- Equipment used to mix and package, soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized
- Drop hammers or hydraulic presses for forging or metalworking
- Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment
- Vents from continuous emissions monitors and other analyzers
- Natural gas pressure regulator vents, excluding venting at oil and gas production facilities
- Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation
- Equipment used for surface coating, painting, dipping or spraying operations, except those that will emit VOC or HAP
- CO₂ lasers, used only on metals and other materials which do not emit HAP in the process
- Consumer use of paper trimmers/binders
- Drying ovens and autoclaves, electric or steam heated, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam
- Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants
- Laser trimmers using dust collection to prevent fugitive emissions
- Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents²
- Routine calibration and maintenance of laboratory equipment or other analytical instruments
- Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis
- Hydraulic and hydrostatic testing equipment
- Environmental chambers not using hazardous air pollutant (HAP) gases
- Shock chambers
- Humidity chambers
- Solar simulators
- Fugitive emissions related to movement of passenger vehicles, provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted

² Many lab fume hoods or vents might qualify for treatment as insignificant or be grouped together for purposes of description.

STATE OF NEVADA
TRIVIAL ACTIVITIES LIST

- Process water filtration systems and demineralizers
- Demineralized water tanks and demineralizer vents
- Boiler water treatment operations, not including cooling towers
- Oxygen scavenging (de-aeration) of water
- Ozone generators
- Fire suppression systems
- Emergency road flares
- Steam vents and safety relief valves
- Steam leaks
- Steam cleaning operations
- Steam sterilizers
- Oxygen plant, not including fuel burning equipment
- Lime slakers
- Ro-taps (bench scale)
- Rifles
- Ventilated benches (sample preparation area)
- Underground mining activities (including ventilation shafts)
- Aspirating devices for, and venting of, aerosol cans, butane or natural gas cylinders, propane gas cylinders and ether cylinders with a capacity of less than 1 gallon
- Vacuum truck related activities
- Non-commercial experimental and analytical laboratory equipment which are bench scale in nature
- Use of pesticides, fumigants and herbicides
- Equipment using water, soap, detergents, or a suspension of abrasives in water for purposes of cleaning or finishing
- Pump or motor oil reservoirs
- Electric motors
- Soil gas sampling
- Continuous emissions monitoring system calibration gases
- Water treatment or storage or cooling systems for process water (specify any water additives), not including cooling towers
- Chemical storage associated with water and wastewater treatment
- Aerosol can usage
- Plastic pipe and liner welding
- Acetylene, butane and propane torches
- Equipment used exclusively for portable steam cleaning
- Caulking operations which are not part of a production process
- High voltage induced corona
- Production of hot/chilled water for on-site use not related to an industrial process
- Filter draining
- General vehicle maintenance and servicing activities at the source
- Station transformers
- Circuit breakers (non-PCB oil filled)

STATE OF NEVADA
TRIVIAL ACTIVITIES LIST

- Storage cabinets for flammable products
- Fugitive emissions from landfill operations (provided the landfill is not subject to any federal applicable requirement)
- Automotive repair shop activities
- Stormwater ponds
- Blast cleaning equipment using a suspension of abrasive in water and any exhaust system or collector serving them exclusively
- Motor vehicle wash areas, etc.
- Open burning (provided all reporting and permitting requirements which apply are followed)
- Fire fighting activities and training conducted at the source in preparation for fighting fires
- Open burning activities in accordance with the NAC
- Flares used to indicate danger
- Pressure relief valves
- Natural gas pressure regulator vents, excluding venting at oil and gas production facilities

ATTACHMENT 4

LIST OF HAZARDOUS AIR POLLUTANTS

The original list of hazardous air pollutants as follows:

CAS Number	Chemical Name
75070	Acetaldehyde
60355	Acetamide
75058	Acetonitrile
98862	Acetophenone
53963	2-Acetylaminofluorene
107028	Acrolein
79061	Acrylamide
79107	Acrylic acid
107131	Acrylonitrile
107051	Allyl chloride
92671	4-Aminobiphenyl
62533	Aniline
90040	o-Anisidine
1332214	Asbestos
71432	Benzene (including benzene from gasoline)
92875	Benzidine
98077	Benzotrichloride
100447	Benzyl chloride
92524	Biphenyl
117817	Bis(2-ethylhexyl)phthalate (DEHP)
542881	Bis(chloromethyl)ether
75252	Bromoform
106990	1,3-Butadiene
156627	Calcium cyanamide
105602	Caprolactam (See Modification)
133062	Captan
63252	Carbaryl
75150	Carbon disulfide
56235	Carbon tetrachloride
463581	Carbonyl sulfide
120809	Catechol
133904	Chloramben
57749	Chlordane
7782505	Chlorine
79118	Chloroacetic acid
532274	2-Chloroacetophenone
108907	Chlorobenzene
510156	Chlorobenzilate
67663	Chloroform
107302	Chloromethyl methyl ether
126998	Chloroprene
1319773	Cresols/Cresylic acid (isomers and mixture)
95487	o-Cresol
108394	m-Cresol
106445	p-Cresol
98828	Cumene
94757	2,4-D, salts and esters
3547044	DDE (See technical note)
334883	Diazomethane
132649	Dibenzofurans (See technical note)
96128	1,2-Dibromo-3-chloropropane

84742	Dibutylphthalate
106467	1,4-Dichlorobenzene(p)
91941	3,3-Dichlorobenzidene(See technical note)
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)
542756	1,3-Dichloropropene
62737	Dichlorvos
111422	Diethanolamine
121697	N,N-Diethyl aniline (N,N-Dimethylaniline)(See technical note)
64675	Diethyl sulfate
119904	3,3-Dimethoxybenzidine(See technical note)
60117	Dimethyl aminoazobenzene
119937	3,3'-Dimethyl benzidine(See technical note)
79447	Dimethyl carbamoyl chloride(See technical note)
68122	Dimethyl formamide
57147	1,1-Dimethyl hydrazine(See technical note)
131113	Dimethyl phthalate
77781	Dimethyl sulfate
534521	4,6-Dinitro-o-cresol, and salts
51285	2,4-Dinitrophenol
121142	2,4-Dinitrotoluene
123911	1,4-Dioxane (1,4-Diethyleneoxide)
122667	1,2-Diphenylhydrazine
106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)
106887	1,2-Epoxybutane
140885	Ethyl acrylate
100414	Ethyl benzene(See technical note)
51796	Ethyl carbamate (Urethane)
75003	Ethyl chloride (Chloroethane)
106934	Ethylene dibromide (Dibromoethane)
107062	Ethylene dichloride (1,2-Dichloroethane)
107211	Ethylene glycol
151564	Ethylene imine (Aziridine)
75218	Ethylene oxide
96457	Ethylene thiourea
75343	Ethylidene dichloride (1,1-Dichloroethane)
50000	Formaldehyde
76448	Heptachlor
118741	Hexachlorobenzene
87683	Hexachlorobutadiene
77474	Hexachlorocyclopentadiene
67721	Hexachloroethane
822060	Hexamethylene-1,6-diisocyanate
680319	Hexamethylphosphoramide
110543	Hexane
302012	Hydrazine
7647010	Hydrochloric acid(See technical note)
7664393	Hydrogen fluoride (Hydrofluoric acid)
7783064	Hydrogen sulfide(See Modification)
123319	Hydroquinone
78591	Isophorone
58899	Lindane (all isomers)
108316	Maleic anhydride
67561	Methanol
72435	Methoxychlor

74839	Methyl bromide (Bromomethane)
74873	Methyl chloride (Chloromethane)
71556	Methyl chloroform (1,1,1-Trichloroethane)
78933	Methyl ethyl ketone (2-Butanone)
60344	Methyl hydrazine
74884	Methyl iodide (Iodomethane)
108101	Methyl isobutyl ketone (Hexone)
624839	Methyl isocyanate
80626	Methyl methacrylate
1634044	Methyl tert butyl ether(See technical note)
101144	4,4-Methylene bis(2-chloroaniline)(See technical note)
75092	Methylene chloride (Dichloromethane)
101688	Methylene diphenyl diisocyanate (MDI)
101779	4,4'-Methylenedianiline
91203	Naphthalene
98953	Nitrobenzene
92933	4-Nitrobiphenyl
100027	4-Nitrophenol
79469	2-Nitropropane
684935	N-Nitroso-N-methylurea
62759	N-Nitrosodimethylamine
59892	N-Nitrosomorpholine
56382	Parathion
82688	Pentachloronitrobenzene (Quintobenzene)
87865	Pentachlorophenol
108952	Phenol
106503	p-Phenylenediamine
75445	Phosgene
7803512	Phosphine
7723140	Phosphorus(See technical note)
85449	Phthalic anhydride
1336363	Polychlorinated biphenyls (Aroclors)
1120714	1,3-Propane sultone
57578	beta-Propiolactone
123386	Propionaldehyde
114261	Propoxur (Baygon)
78875	Propylene dichloride (1,2-Dichloropropane)
75569	Propylene oxide
75558	1,2-Propylenimine (2-Methyl aziridine)
91225	Quinoline
106514	Quinone
100425	Styrene
96093	Styrene oxide
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin
79345	1,1,2,2-Tetrachloroethane
127184	Tetrachloroethylene (Perchloroethylene)
7550450	Titanium tetrachloride
108883	Toluene
95807	2,4-Toluene diamine
584849	2,4-Toluene diisocyanate
95534	o-Toluidine
8001352	Toxaphene (chlorinated camphene)
120821	1,2,4-Trichlorobenzene
79005	1,1,2-Trichloroethane

79016	Trichloroethylene
95954	2,4,5-Trichlorophenol
88062	2,4,6-Trichlorophenol
121448	Triethylamine
1582098	Trifluralin
540841	2,2,4-Trimethylpentane
108054	Vinyl acetate
593602	Vinyl bromide
75014	Vinyl chloride
75354	Vinylidene chloride (1,1-Dichloroethylene)
1330207	Xylenes (isomers and mixture)
95476	o-Xylenes (See technical note)
108383	m-Xylenes (See technical note)
10642	p-Xylenes (See technical note)
	Antimony Compounds
	Arsenic Compounds (inorganic including arsine)
	Beryllium Compounds
	Cadmium Compounds
	Chromium Compounds
	Cobalt Compounds
	Coke Oven Emissions
	Cyanide Compounds ¹
	Glycol ethers ²
	Lead Compounds
	Manganese Compounds
	Mercury Compounds
	Fine mineral fibers ³ (See technical note)
	Nickel Compounds
	Polycyclic Organic Matter ⁴ (See technical note)
	Radionuclides (including radon) ⁵
	Selenium Compounds

NOTE: For all listings above which contain the word "compounds" and for glycol ethers, the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical's infrastructure.

¹ X'CN where X = H' or any other group where a formal dissociation may occur. For example KCN or Ca(CN)₂

² Includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH₂CH₂)_n-OR' where

n = 1, 2, or 3

R = alkyl or aryl groups

R' = R, H, or groups which, when removed, yield glycol ethers with the structure: R-(OCH₂CH₂)_n-OH. Polymers are excluded from the glycol category. (See Modification)

³ Includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

⁴ Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100 ½ C.

⁵ A type of atom which spontaneously undergoes radioactive decay.

Modifications To The 112(b)1 Hazardous Air Pollutants

Authority for modifications:

Section 112 of the Act contains a mandate for U.S. EPA to evaluate and control emissions of hazardous air pollutants. Section 112(b)(1) includes an initial list of hazardous air pollutants that is composed of specific chemical compounds and compound classes to be used to identify source categories for which the U.S. EPA will promulgate emissions standards. The listed categories are subject to emission standards subsequently developed under Section 112. The U.S. EPA must periodically review the list of hazardous air pollutants and, where appropriate, revise this list by rule. In addition, any person may petition U.S. EPA under Section 112(b)(3) to modify the list by adding or deleting one or more substances. A petitioner seeking to delete a substance must demonstrate that there are adequate data on the health and environmental effects of the substance to determine that emissions, ambient concentrations, bioaccumulation, or deposition of the substance may not reasonably be anticipated to cause any adverse effects to human health or the environment. To demonstrate the burden of proof, a petitioner must provide a detailed evaluation of the available data concerning the substance's potential adverse health and environmental effects, and estimate the potential exposures through inhalation or other routes resulting from emissions of the substance.

Modifications

Glycol Ethers - Proposed

On January 12, 1999 (FR64:1780), U.S. EPA proposed to modify the definition of glycol ethers to exclude surfactant alcohol ethoxylates and their derivatives (SAED). This proposal was based on U.S. EPA's finding that emissions, ambient concentrations, bioaccumulation, or deposition of SAED may not reasonably be anticipated to cause adverse human health or environmental effects. U.S. EPA also proposed to make conforming changes in the definition of glycol ethers with respect to the designation of hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The proposal reads as follows:

"The definition of the glycol ethers category of hazardous air pollutants, as established by 42 U.S.C. 7412(b)(1) includes mono- and di-ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH₂CH₂)_n-OR' Where: n= 1, 2, or 3 R= alkyl C7 or less, or phenyl or alkyl substituted phenyl R'= H, or alkyl C7 or less, or carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate."

Notices of Review

Date	Citation	Description
06/23/99	64 FR 33453	Notice:Hazardous Air Pollutant list-Methyl Ethyl Ketone(MEK); receipt of a complete petition to delist

Caprolactam

On July 19, 1993, U.S. EPA received a petition from AlliedSignal, Inc., BASF Corporation, and DSM Chemicals North America, Inc. to delete caprolactam (CAS No. 105-60-2) from the hazardous air pollutant list in Section 112(b)(1), 42 U.S.C., Section 7412(b)(1). A Notice of Receipt was published (58FR45081, August 26, 1993) noting that the data filed were adequate to support decision making. After a comprehensive review of the data submitted, the EPA published a proposal to delist caprolactam (60FR48081, September 18, 1995). In order to help address public concern, on March 13, 1995, U.S. EPA executed two detailed agreements with AlliedSignal concerning the Irmo, South Carolina manufacturing facility and another facility located in Chesterfield, Virginia, copies of which are included in the public docket for this rulemaking. AlliedSignal agreed that, if caprolactam was delisted pursuant to the proposal, AlliedSignal would install emissions controls which EPA believed would be equivalent to the controls which would have been required had EPA issued a standard to control these sources under Section 112. The agreed emissions controls are incorporated in federally enforceable operating permits for the affected facilities, and will be in place years earlier than controls would have otherwise been required. In addition,

AlliedSignal has agreed to establish a citizen advisory panel concerning the Irmo facility in order to improve communications with the community and to assure that citizens have an ongoing role in implementation of the agreed emission reductions. The public requesting a public hearing. On November 28, 1995, the EPA published a notice of public hearing and an extension of the comment period (60FR58589). After considering all public comments, the EPA published a final rule delisting caprolactam (61FR30816, June 18, 1996).

All information associated with this rule making is located in Docket Number A-94-33 at the Central Docket Section (A-130), Environmental Protection Agency, 401 M St. SW., Washington, D.C. 20460. phone 202-260-7548, fax 202-260-4400, email a-and-r-docket@epamail.epa.gov. The docket includes complete index to all papers filed in this docket, a copy of the original petition, comments submitted, and additional materials supporting the rule. A reasonable fee may be charged for copying. The docket may be inspected in person between 8:00 a.m. and 4:30 p.m. on weekdays at EPA's Central Docket Section, West Tower Lobby, Gallery 1, Waterside Mall, 401 M St., SW, Washington, D.C. 20460.

Hydrogen Sulfide

A clerical error led to the inadvertent addition of hydrogen sulfide to the Section 112(b) list of Hazardous Air Pollutants. However, a Joint Resolution to remove hydrogen sulfide from the Section 112(b)(1) list was passed by the Senate on August 1, 1991 (Congressional Record page S11799), and the House of Representatives on November 25, 1991 (Congressional Record pages H11217-H11219). The Joint Resolution was approved by the President on December 4, 1991. Hydrogen Sulfide is included in Section 112(r) and is subject to the accidental release provisions. A study (see below) was required under Section 112(n)(5).

Hydrogen Sulfide Air Emissions Associated with the Extraction of Oil and Natural Gas,
EPA-453/R-93-045,
NTIS (publication # is PB94-131224, \$36.50 hard copy, \$17.50 microfiche).

National Technical Information Services (NTIS)
5285 Port Royal Road
Springfield, VA 22161
703-487-4650 800-426-4791
703-487-4807 8:30-5:30 EST M-F

ATTACHMENT 5

LIST OF DEFAULT CONTROL EFFICIENCY RATINGS

**Nevada Bureau of Air Pollution Control
Emission Control Technology - Control Efficiency Ratings**

Emission Control Technology	Control Efficiency Rating
Water Sprays	75%
Fogging Water Sprays	85%
Fogging Water Sprays with Surfactant	90%
Pneumatic Fogging Water Sprays	95%
Cyclones	*80%
High-Efficiency Cyclones	*96%
Multi Clones	*95%
Wet Scrubber	*85%
Venturi Scrubber	*95%
High-Efficiency Wet Scrubber	*98%
Electrostatic Precipitator	*Manufacturers Guarantee
Enclosure	50%
Filter Vent (cartridge or filter sock)	*90%
Baghouse/Dust Collector	*Manufacturers Guarantee/0.02 grains/dscf

Note: - The guaranteed emissions outlet (outlet grain loading) information from the pollution control device manufacturer should be utilized to derive appropriate emissions limitations rather than the percent reduction ratings provided above. The percent reduction rating provided by the pollution control device manufacturer is based on the difference between the amount of pollutant entering the control versus the amount of pollutant exiting the control. If the percent reduction rating provided above is applied to emission factors (such as those provided in AP-42) that are different from those used by the pollution control device manufacturer in the design of the control, excessively low, and in many cases un-achievable emissions levels may be calculated.