

Nevada Mercury Control Program
Application Packet for
Operating Permit to Construct

Use for:
Phase-1: Tier-1, Tier-2 and Early Reduction Credit
Phase-2
Tier-3 / De Minimis
New / Modified Units



Prepared by
Division of Environmental Protection
Bureau of Air Pollution Control
Permitting Branch
Revised: October 2006

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State of Nevada
Division of Environmental Protection
Bureau of Air Pollution Control

APPLICATION FOR MERCURY OPERATING PERMIT TO CONSTRUCT

Please return to: Nevada Division of Environmental Protection
Bureau of Air Pollution Control, Permitting Branch
901 South Stewart Street
Carson City, Nevada 89701-5249
(775) 687-9350 FAX (775) 687-6396

General Information

- This application is available from the Bureau of Air Pollution Control in a Microsoft Word file, or on the internet at <http://www.ndep.nv.gov/bapc>. All information required in the application may be computer generated and submitted to the Bureau on compact disk(s) or DVD(s). In addition, one printed copy must be submitted.
- All information required by the “General Company Information” and by the relevant forms in the Appendices must be completed.
- The application filing fee required by NAC 445B.3689 must be submitted with the completed application. Checks must be made payable to: “Nevada State Treasurer, Environmental Protection”.
- This application packet shall be used for Tier 1, Tier 2 thermal units that emit mercury, for construction of new thermal units that emit mercury, for de minimis designation and construction and installation projects for thermal units that emit mercury at new and existing stationary sources.
- An application for a mercury operating permit to construct must be signed by a responsible official, as defined in Section NAC 445B.297.1. The certification/signature page is contained in Appendix 5.
- All items in the application must be addressed. If an item does not apply, please indicate so with “N/A” or similar notation in the appropriate blank. All other information must be provided. Incomplete applications will be returned to the responsible official.

**Application
for
Mercury Air Quality
Operating Permit to
Construct**

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.3671.1 and NAC 445B.3681.1]:

(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.3671.1 and NAC 445B.3681.1]:

(Name)

(Address)

(City)

(State)

(Zip Code)

4. Physical Location of Stationary Source [NAC 445B.3671.2 and NAC 445B.3681.7]: (if no physical address, describe location, e.g., 4 miles south of I-80 at xx Interchange)

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

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

(Name)

(Title)

(Address)

(City)

(State)

(Zip Code)

(Telephone #)

(FAX #)

(E-mail address)

GENERAL COMPANY INFORMATION (CONTINUED)

6. Plant Manager or Other Appropriate Contact [NAC 445B.3671.1 and NAC 445B.3681.1]:

(Name) (Title)

(Address)

(City) (State) (Zip Code)

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

7. If records required under the operating permit will be kept at a location other than the source, specify that location [NAC 445B.3671.5 and NAC 445B.3681].

(Name)

(Address)

(City) (State) (Zip Code)

APPLICATION INFORMATION

8. This application is submitted for (please check appropriate box below):

Phase 1 Application

- Tier 1 Unit(s) – Please provide the following:
- An identification and description of any equipment for control of mercury emissions from all existing thermal units that emit mercury, including any presumptive NvMACT controls. In addition to the identification and description, please complete Section 5 of the Mercury Unit application form in Appendix 1. A separate Mercury Unit application form is required for each thermal unit that emits mercury. [NAC 445B.3673.1]
 - A proposed monitoring plan for each thermal unit that emits mercury consistent with the requirements of NAC 445B.3673.2(a). Include the plan in Appendix 2.
 - For each requested mercury early reduction credit, the additional controls that are proposed to be implemented to reduce mercury emissions. [NAC 445B.3671.6]
- Tier 2 Unit(s) – Please provide the following:
- An identification and description of any equipment for control of mercury emissions from all existing thermal units that emit mercury, including any presumptive NvMACT controls. In addition to the identification and description, please complete Section 5 of the Mercury Unit application form in Appendix 1. A separate Mercury Unit application form is required for each thermal unit that emits mercury. [Section 33.1 of amended NAC 445B]
 - A proposed monitoring plan for each thermal unit that emits mercury consistent with the requirements of Section 33.2(b) of amended NAC 445B. Include the plan in Appendix 2.

Phase 2 Application

- Tier 1 or Tier 2 Unit(s) – Please provide the following:
- A proposed monitoring plan consistent with the requirements of NAC 445B.3675.2. Include the plan in Appendix 2.
 - The NvMACT analysis for each thermal unit that emits mercury consistent with the requirements of NAC 445B.3675.1. Include the analysis in Appendix 3.

New or Modified Thermal Unit that Emits Mercury

- Please provide the NvMACT analysis for each thermal unit that emits mercury consistent with the requirements of NAC 445B.3681.6. Include the analysis in Appendix 3.

Request for De Minimis Designation

- For a request for determination of de minimis mercury emissions, include a de minimis demonstration in Appendix 4. De minimis status is considered for each thermal unit. Demonstration must be at the individual unit level, but include cumulative impact of all de minimis units at a facility. [NAC 445B.3613 and NAC 445B.3657.3]
- De minimis demonstration must include, at a minimum: identification of the proposed thermal unit, a process description, location, unit manufacturer, unit model, serial number and fuel type used (or specify if electric). Identify if any exhaust stacks are shared and if mercury emission controls are utilized. [NAC 445B.295]
- Include potential to emit values based on unit operation at maximum design capacity at 8,760 hours per year. Supply laboratory test results, performance stack test results and calculations implemented to calculate potential to emit mercury emissions. Include a thorough discussion of any assumptions. [NAC 445B.295]
- Identify under what Air Quality Operating Permit the proposed units are contained and if the proposed units are designated as “insignificant” or “non-permitted items.” [NAC 445B.295]

APPLICATION INFORMATION (CONTINUED)

9. The application must also contain:
- a. An identification of each thermal unit that emits mercury. In addition to the identification of each thermal unit that emits mercury, please complete Section 1 of the Mercury Unit application form in Appendix 1. Complete a separate Mercury Unit application form for each thermal unit that emits mercury. [NAC 445B.3671.2 and NAC 445B.3681.2]
 - b. A description of the production rates, operating schedules, fuels, fuel use and raw materials to be used for each thermal unit that emits mercury. In addition to the description, please complete Sections 2 and 3 of the Mercury Unit application form in Appendix 1. Complete a separate Mercury Unit application form for each thermal unit that emits mercury. [NAC 445B.3671.3 and NAC 445B.3681]
 - c. Limitations on the operation of stationary source or thermal unit that emits mercury or any work practices which may affect mercury emissions from the thermal unit that emits mercury. Use Sections 4 and 5 of the Mercury Unit application form in Appendix 1. Complete a separate Mercury Unit application form for each thermal unit that emits mercury. [NAC 445B.3671.4 and NAC 445B.3681.4]
 - d. Requested emissions limits. Use Section 7 of the Mercury Unit application form in Appendix 1. Complete a separate Mercury Unit application form for each thermal unit that emits mercury. [NAC 445B.3671.7 and NAC 445B.3681.7]

11. Will the construction occur in more than one phase? Yes No

If the construction will occur in more than one phase, please provide the projected date of the commencement for each phase of construction (include additional phases if necessary): [NAC 445B.3687]

Phase 1: _____
Phase 2: _____
Phase 3: _____

12. **For Application Submittal:**

Please remove the cover page, Table of Contents and General Information page. Submit the remainder of the application packet as your formal application. This should consist of, at a minimum, the Mercury Operating Permit to Construct Application cover page, the general Company Information and Application Information, and any applicable Appendices.

Appendix 1

THERMAL MERCURY EMITTING UNIT APPLICATION FORM

Instructions

PLEASE RESPOND SEPARATELY TO ITEMS 1 through 7 FOR EACH EMISSION UNIT, as appropriate. Each emission unit at the stationary source must be identified by completion of the application form contained in this appendix. The forms may be duplicated for as many thermal mercury emission units as needed. Complete all applicable attachments (**Appendix 1**) included in this application package [NAC 445B.295].

- Section 1. Equipment Description: Describe the processes and products by SIC, including any associated with an alternative operating scenario identified in this application, model number, manufacture date, dimensions and UTM coordinates.
- Section 2. Design Rate/Operating Parameters: Describe all production rates, operating schedules and materials used in the process.
- Section 3. Fuel Usage: Describe all fuels and fuel usage.
- Section 4. Pollution Control Equipment/Exhaust Stack Parameters: Identify and describe all air pollution control equipment.
- Section 5. Work Practice Standards: provide information on limitations on the operation or any standards for work practices which affect emissions for all regulated air pollutants. [NAC 445B.295.5]
- Section 6. Compliance Monitoring Devices and Activities: Identify and describe any equipment for the control of air pollution and any devices or activities for monitoring compliance with emission limitations.
- Section 7. Requested Emission Limits: Provide the requested emission limits for each emission unit. Include the emission rates of total mercury. The emission rates must be described in pounds per hour and pounds per year and any other units of measure for mercury emissions as may be proposed.

Alternative Operating Scenarios: Complete a separate application form for each emission unit having an alternative operating scenario. (*A common example of an alternative operating scenario is a steam boiler that utilizes natural gas as the primary fuel, but may combust diesel fuel as an alternate fuel source*). Please check the box in the upper right hand corner of each application form for emission units requesting an alternative operating scenario. Additionally, for each emission unit application form requesting an alternative operating scenario:

1. Define each alternative operating scenario;
2. Provide an alternative monitoring plan for each unit, for which an alternative operating scenario is requested, in Appendix 2, if different from the monitoring plan provided for the primary operating scenario. Contemporaneous log entries must be provided every time the source changes from one scenario to another.

**THERMAL MERCURY EMITTING UNIT
APPLICATION FORM
MERCURY OPERATING PERMIT TO CONSTRUCT**

Check here if this is an
alternative operating scenario

Section 1 - Equipment Description

a.	Type of equipment _____
b.	Standard Industrial Classification (SIC) Code _____
c.	Manufacturer of equipment _____
d.	Model number _____ Serial number _____ *Equip. number _____
e.	Date equipment manufactured: _____
f.	UTM Coordinates _____ meters N; _____ meters E; Zone 11 (Please specify NAD 27 <input type="checkbox"/> or NAD 83 <input type="checkbox"/> ; Method used to obtain coordinates: _____)
g.	Basic equipment dimensions (feet): L _____ W _____ H _____

*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) _____
b.	Requested operating rate (tons per hour)* _____
c.	Requested operating time: (time of day)* _____ to _____ Hours per day _____ Days per year _____
d.	Batch load or charge weight (tons) (if applicable) _____
e.	Total hours required to process batch or charge (if applicable) _____
f.	Maximum operating rate (tons per year) _____
g.	Requested operating rate (tons per year)* _____
f.	Type of material processed _____

*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, 8,760 hours per year) are being requested. The permit will be limited to these values.

**THERMAL MERCURY EMITTING UNIT
APPLICATION FORM
(CONTINUED)**

For Unit: _____

Section 3 - Fuel Usage / Heat Source

Electric Unit <input type="checkbox"/>

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 Coal 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.

**THERMAL MERCURY EMITTING UNIT
APPLICATION FORM
(CONTINUED)**

For Unit: _____

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, sulfur impregnated carbon filter, uncontrolled stack, 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 characteristics (e.g. raincap, horizontal discharge)		

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.

**THERMAL MERCURY EMITTING UNIT
APPLICATION FORM
(CONTINUED)**

For Unit: _____

Section 5 - Identify and Describe Work Practice Standards, Etc. (attach additional pages if necessary
(Eg., 1. Baghouse housing and bags will be inspected weekly for holes/leaks.)

Section 6 - Identify and Describe Compliance Monitoring Devices or Activities (attach additional pages if necessary)

(Eg., Emissions from this unit will be monitored by CEMS for mercury.)

**THERMAL MERCURY EMITTING UNIT
APPLICATION FORM
(CONTINUED)**

For Unit: _____

Section 7 - Proposed Emission Rates

Pollutant	Potential to Emit (pounds/hour*)	Potential to Emit (tons/year)	Calculation (including reference or emissions tests) on Which Emissions Information is Based (attach supporting information including dates of tests/methods, if necessary)
Total Mercury (all forms)			
Total Mercury (alternative emissions limitations)			

*Note: In addition to lb/hr, 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 above. Use additional lines, as needed.

Appendix 2

Monitoring Plan For Each:

(Check Appropriate Box)

- Phase 1, Tier 1;**
- Phase 1, Tier 2;**
- Phase 2; or**
- New or Modified**

Thermal Mercury Emitting Unit

Appendix 3

Nevada MACT Analysis For Each:

(Check Appropriate Box)

Phase 2;

New or Modified; or

Not Applicable

Thermal Mercury Emitting Unit

Appendix 4

Request for de minimis Emissions Determination

Thermal Mercury Emitting Unit

Appendix 5

APPLICATION CERTIFICATION

The responsible official must sign and date the application certification found in Appendix 5. *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).

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).

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

Signature of Responsible Official

Print or Type Name **and** Title

Date