STATE OF NEVADA
Department of Conservation & Natural Resources
DIVISION OF ENVIRONMENTAL PROTECTION
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Nevada Mercury Control Program (NMCP)
Overview and Guidance, July 2006

**This document is intended as an abbreviated review only; for complete guidance refer to NAC 445B.3611-3689.*

Introduction

The Voluntary Mercury Reduction Program (VMRP) began in June 2002 with the goal to achieve significant, permanent and rapid reductions in mercury air emissions from precious metal processing operations. Reductions are achieved by adding emission controls to thermal units that emit mercury. Facilities and emission units involved in the VMRP are listed in NAC 445B.3653.

VMRP status is by emission unit; a facility may have both VMRP and non-VMRP emission units. The voluntary approach was pursued because mercury emissions reductions could occur rapidly. In contrast, implementation of a Federal MACT standard would take as many as 10 years to implement the rules and another 2 years to install the emission controls.

According to the US EPA, the VMRP companies comprised more than 90 percent of reported mercury air emissions in Region 9 in 2000. The VMRP companies have already reduced their emissions by more than 80% and the remaining companies comprise a much smaller portion of the potential emissions.

The Nevada Mercury Control Program (NMCP) is a State regulatory Program that supersedes and replaces the VMRP--it is not voluntary. The NMCP was adopted March 8, 2006 and made effective May 4, 2006. The Program achieves mercury reduction via add-on control technologies by implementing "NvMACT." NvMACT is "...a standard, method of control or any other limitation which is applied to an existing, new or modified thermal unit that emits mercury" (NAC 445B3629).

The "starting point" or "baseline" for NvMACT is the "Presumptive NvMACT." The Presumptive NvMACT "...is technologies to control mercury emissions which have been implemented before May 4, 2006 and associated with Tier-1 units" (NAC 445B.3639). Tier-1 units are VMRP units. NvMACT is based on each discrete thermal mercury emission unit at a facility.

For new/modified emission units, NvMACT is at minimum the emission control that is achieved in practice by the best controlled similar emission unit within the precious metals mining industry. A determination of similar emission units may take into account ore mercury concentration, size of process units and other relevant factors. NDEP will

use the principles of MACT consistent with Section 112(d) of the Clean Air Act in establishing NvMACT.

Pursuant to NAC 445B.3625, owners or operators that operate, construct or modify a thermal unit that emits mercury must apply for, and obtain, a Mercury Operating Permit to Construct (Mercury OPTC) to apply the NvMACT. Construction of a new or modified thermal unit that emits mercury requires a permit before construction begins.

Those emission units subject to NvMACT must install controls no later than 24 months after final Phase-2 permit issuance, unless deferred 48 months with the Director-designated Early Reduction Credit.

Phase and Tier Designations

One of the principal goals of the NMCP is to "phase" existing facilities into the NvMACT for thermal units that emit mercury. New or modified units are required to implement the NvMACT immediately, without "phasing-in." The NMCP Program uses the "phase" and "tier" designations to describe the chronological staging of a discrete emission point phasing into the NvMACT. There are (2) Phase and (3) Tier designations. Phases are denoted as "Phase-1" and "Phase-2." Tiers are designated as "Tier-1," "Tier-2" or "Tier-3." Each Tier and Phase has a specific set of requirements.

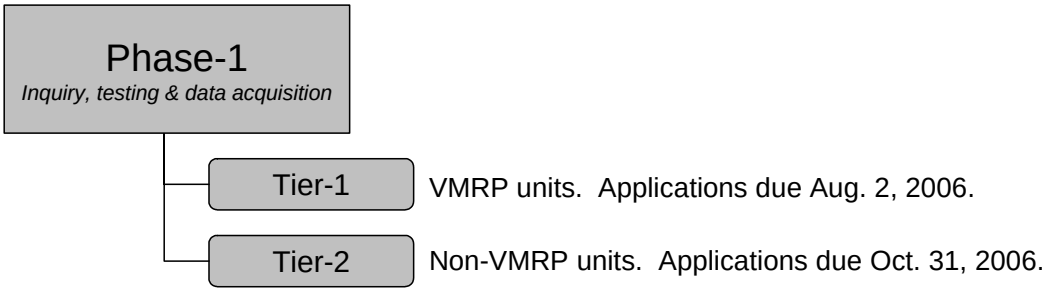
In broad terms, Phase-1 is designed to collect information for NMCP fees and to establish consistent monitoring, recordkeeping and reporting methods and to begin stack testing of thermal units with the potential to emit mercury. In Phase-2, the NvMACT is established from the data acquired in the Phase-1 source tests and specific mercury emission limits, testing requirements, monitoring, record keeping and reporting requirements are established in the Mercury OPTC.

"Tiers" designate different emission units. Tier-1 designates a VMRP emission unit and it's emission control(s) as designated in NAC 445B.3653. Tier-2 denotes a thermal unit that emits mercury other than a Tier-1/VMRP unit (or Tier-3/de minimis unit). Tier-3 is a Director-designated de minimis unit.

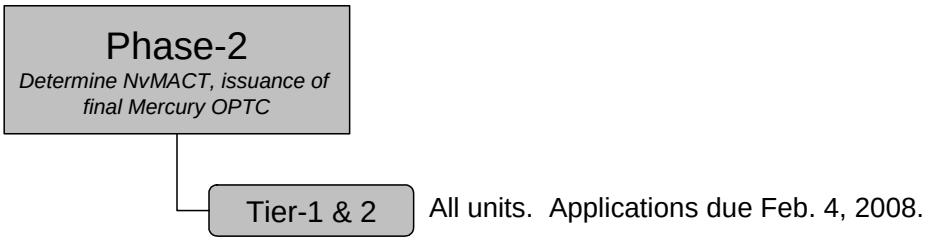
The phasing process begins with the Phase-1, Tier-1 units (VMRP). Phase-1, Tier-1 applications are required for submittal by August 2, 2006. Next are the Phase-1, Tier-2 units (non-VMRP) which require applications submitted by October 31, 2006. These two Tiers encompass all units in industry. Phase-1 permits are required for existing units constructed before March 4, 2006.

Following Phase-1 is Phase-2, which includes Tier-1 and Tier-2 units. Phase-2 applications are required for submittal by February 4, 2008. After a public review process, NDEP will make a determination of final NvMACT standard for each subject thermal unit that emits mercury with appropriate revisions to the facility's mercury OPTC.

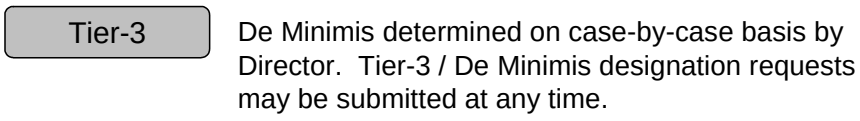
Tier-3 applications may be submitted at any time during either Phase.



- Application questions similar to Questionnaire questions;
- No NvMACT established yet—facilities operate existing controls as-is;
- Phase-1, Tier-1 & Tier-2 will encompass all of regulated community;
- Facilities submit a plan for monitoring, record keeping and reporting;
- Facilities test thermal units with potential to emit mercury;
- Permit lists emission units; limits not established until Phase-2;
- Public notice for each facility unit.



- Set NvMACT using source data acquired in Phase-1;
- NvMACT set using guidelines of MACT in CAA 112(d);
- Phase-2 permit is final permit for NvMACT (until exp.);
- Monitor, record keeping & reporting requirements;
- Permit has mercury limits and testing requirements;
- Public notice for each facility unit.



Mercury emitting thermal unit

1. A mercury emitting thermal unit has the potential to emit (even if very low mercury in ore).
2. Only mercury emitting thermal units are brought into NvMACT; not thermal units.
3. All laboratory mercury emitting thermal units are regulated; however, laboratory furnaces (only) are not included in fiscal billing. Laboratory hoods themselves are not included in fiscal billing, but equipment vented out them may be. Laboratory equipment are not default de minimis.
4. A laboratory hood is not a mercury emitting thermal unit; however, equipment vented to the hood may be (the hood stack would be the emission discharge point).
5. The definition of thermal unit is intended to be for units involved with metallic mineral processing/ore (not air make-up heaters, generators, etc.)

Application for Existing Units

Among other requirements, applications must include: limitations on the operation which affect mercury emissions, a description of the fuels, fuel use and raw materials to be used and the rates of production and operating schedules for each unit (445B.3671).

Phase-1, Tier-1: methods of monitoring and recordkeeping for controls, proposed schedule for sampling and performance tests annually (according to 445B.252), requirement to report mercury emissions and co-product annually (by unit). Initial testing must be reported to the Director by December 31, 2006. After submitting, initial test results may request alternate testing schedule (445B.3673).

Phase-1, Tier-2: methods of monitoring and recordkeeping for controls, proposed sample and performance tests, report mercury emissions (based on test data) and co-product annually (by unit) (445B.3673).

Phase-2, Tier-1 and Phase-2, Tier-2: Must include a NvMACT analysis, conducted by applicant and a monitoring plan pursuant to 445B.3675.

Application Review and Action (445B.3677)

New Phase-1 or Phase-2 and Revision of mercury OPTC for Tier-1 or Tier-2: The Director shall determine completeness within 30 calendar days of receipt. If deemed incomplete, the applicant must re-submit within 15 days. Date deemed complete = official date of submission or 31st day after receipt.

New Phase-1, Revision of mercury OPTC issued pursuant to Phase-1 for Tier-1 or Tier-2: Within 180 days director shall propose permit conditions, include presumptive NvMACT for Tier-1, apply early reduction credit actions.

New Phase-2, revision of mercury OPTC issues pursuant to a Phase-2 application for a Tier-1 or Tier 2 thermal unit: within 9 months after official date of submittal

Director shall propose conditions and determine NvMACT. Director's review and proposed conditions for mercury OPTC will have 30 days public notice/comment period. Public hearing may be requested. Within 12 months Director will take final action on new/revised Phase-1 OPTC; 16 months for new/revised Phase-2 OPTC.

NvMACT must be implemented within 24 months after OPTC issued pursuant to Phase-2 application. If early reduction credit had been approved by director, must be implemented within 48 months.

Application for new or modified thermal units that emit mercury (445B.3681).

Application for revision or new mercury OPTC must include, among other requirements: limitations on the operations which affect emissions of mercury and NvMACT analysis.

Review and Action on application for new/modified thermal unit that emits mercury (445B.3683).

Within 30 days after date of receipt Director will determine if complete. Official date of submission = date deemed complete or defaults complete on 31st day. Within 180 days after official date of submittal director shall propose conditions, make a determination of NvMACT, make a preliminary determination to issue or deny and establish public notice and 30 day comment period. Public hearing if requested. 60 days after comment period Director shall make decision to issue or deny.

OPTC Expiration and Extension (445B.3687).

Construction must commence within 18 mos. after date of OPTC issuance. Director may extend construction commencement date if justified.

Billing / Program Funding

NDEP determined that $300,000 was required for the first year of the NMCP operations. The Nevada Mining Association (NMA) and the precious metals mining and processing industry were approached to help craft the program funding methodology. The final funding methodology was proposed by NMA and consisted of 2 steps. In the first step it was established that the VMRP facilities would split $50,000, and in the second step, the VMRP facilities and other precious metal processing facilities that have mercury emitting thermal units would pay the remaining $250,000 balance. The remaining $250,000 balance was distributed by charging per mercury emitting thermal unit. Per unit cost was determined by dividing the total number of mercury emitting thermal units in the precious metal mining industry reported in the Mercury Questionnaire by $250,000. It was recognized by NMA, industry and the NDEP that for the billing methodology to

equitably distribute the financial cost, that accurate data reporting on the Mercury Questionnaires would be critical.

The NDEP has received a number of comments regarding the equitability of the billing process. Commenters have voiced concern that some facilities under-reported or did not report accurately and therefore did not contribute their fair share to the Program costs. The billing process will be significantly refined for the second billing year. The required Phase-1 mercury applications will provide detailed emission unit information and the NDEP will begin facility inspections. In addition, facilities will have the opportunity to have thermal units designated as de minimis, thereby removing the units' from eligibility for billing.

De Minimis

1. De minimis mercury emissions means mercury emissions from a thermal unit that emits mercury which are determined by the Director to be insufficient to require compliance with the requirements for a mercury operating permit or application of NvMACT.

2. De minimis is a separate concept from an insignificant activity. De minimis designation does not deem a unit Insignificant; nor does an Insignificant status deem a unit de minimis. Insignificant is an Air Quality Operating Permit concept; de minimis is a mercury permit concept.

3. De minimis is a case-by-case determination. There are no default excluded items (eg: list of excluded items). There is no default status by equipment specification, throughput or operational procedure.

4. A facility must demonstrate an emission unit's de minimis status annually to retain the de minimis designation.

Some Notable Dates

January 15, 2006	Questionnaire sent out as formal information request
March 8, 2006	NMCP adopted
March 15, 2006	Questionnaire to be returned completed to NDEP
May 4, 2006	NMCP effective
July 3, 2006	Director's determination regarding de minimis.
August 2, 2006	An owner or operator of Tier-1 thermal unit that emits mercury (VMRP sources as listed in 445B.3651) shall submit a Phase-1 application.
September 1, 2006*	NDEP determine completeness of Phase-1 applications
October 31, 2006	An owner or operator of Tier-2 thermal unit that emits mercury (non-VMRP and not de minimis) shall submit a Phase-1 application.
November 30, 2006*	Director determine completeness deadline for Phase-2 application.
December 31, 2006	Phase-1 application testing (approved test method with speciation) due.
August 2007*	Issue or deny Phase-1 permit (from complete application)
February 4, 2008*	An owner or operator of a Tier-1 or Tier-2 thermal unit that emits mercury shall submit a Phase-2 application.
March 2008*	Determination of completeness for Phase-2 application.

* These times may vary--represent "deadline dates"; actions may occur earlier.