

MPCA Voluntary Mercury Reduction Agreements: Program Guidelines

Overview

The MPCA voluntary agreement program challenges mercury sources in the state to design and carry out their own creative, cost-effective mercury reduction plans. Rather than requiring formal, complicated agreements with the MPCA, this program strives to be simple and flexible. In their voluntary agreements, mercury sources can lay out plans to reduce their own mercury releases or releases from other sources. Participants can team up with others. And they can conduct or fund research—or other activities—aimed at reducing mercury releases.

MPCA Role

The MPCA will provide technical assistance, verify results, and report progress. Participants and the agency will have to agree on how progress and results will be measured, recorded and reported on. The voluntary agreement program is scheduled to end no later than December 31, 2005. If the program is successful, however, the agency could continue a similar program after that date.

Guidelines

In a July 1, 1999 letter, the MPCA invited major mercury sources in the state to participate in the voluntary agreement program and laid out some initial ground rules. Since then, many of the major mercury sources requested more details on how the program would work. In response, the agency prepared these guidelines.

The guidelines are designed to be flexible and to make it as easy as possible for large and small mercury sources to participate—while maintaining program credibility and effectiveness. The guidelines are not meant to be exhaustive or prescriptive. We can change them as we move forward.

The guidelines are divided generally into six parts:

- Goals
- Participation
- Early Reduction Credit
- Verification and Measurement
- Public Reporting
- Mandatory vs. Voluntary Reductions

Goals

Minnesota's 1999 mercury-reduction law sets a statewide goal of reducing mercury releases to air and water by 60 per cent by the end of 2000 and by 70 per cent by the end of 2005, starting from a 1990 baseline. The voluntary reduction agreement program—and other reduction strategies—are primarily intended to help cost effectively reduce mercury releases and lower the concentration of mercury found in Minnesota's fish.

The voluntary agreements are also intended to help:

1. Refine the statewide mercury release inventory and better track progress;
2. Accelerate development of innovative mercury reduction strategies; and
3. Evaluate the feasibility of non-regulatory environmental programs.

How To Participate

Letter of Intent

Sources planning to participate in the program but not ready to submit a proposal can start by sending the MPCA a short letter of intent. If you are planning to participate in the program, please submit your letter of intent by January 15, 2000-or sooner if possible. If you have an anticipated general approach and schedule, you can briefly describe that in the letter of intent, too.

Proposed Agreement

To formally participate in the program, submit a proposed agreement—as short as a few pages—that outlines four things:

1. A statement reiterating your decision to participate in the program;
2. An summary of your specific plans and objectives;
3. A proposed implementation schedule and reporting schedule; and
4. A summary of how you will measure progress.

If you have more details ready, including any measurement, quality assurances, or record keeping plans, by all means submit that information too. Otherwise, the technical details of your measurement and data procedures can be worked out later, within two months or so of submitting the proposed plan. As you finalize the details of each part of your plan and subsequent changes, submit them to the MPCA. Those details then become part of your voluntary agreement too.

Signature

A senior level manager should sign the letter of intent and the proposed agreements. Please address the letter of intent and proposal to:

Tim Scherkenbach
Director, Policy & Planning Division
MPCA
520 Lafayette Road
St. Paul, MN 55155-4194

MPCA Certificate of Participation

As outlined in the July 1, 1999 MPCA letter, we will accept the proposed voluntary agreement if it:

- Focuses on reducing mercury releases or related research;
- Outlines how your results will be tracked and measured; and
- Goes beyond existing regulatory requirements.

Assuming your proposal meets these general requirements, the MPCA will mail you a certificate indicating your participation in the program.

At the end of the program—if we reach or exceed our mercury reduction goals—you will receive another certificate indicating your contribution to its success. Sources that don't achieve immediate reductions but make substantial contributions to reducing future mercury releases will be acknowledged equally to those making more immediate reductions.

Experiments, Revisions, and Updates Encouraged

The voluntary agreements under this program will not be formal, static documents—but works in progress. Flexibility will be a key to the success of the program. Revisions are expected and encouraged. We'll all be learning what works and what doesn't.

Participants can simply modify their proposals by sending in their proposed changes. We'll accept changes as long as the overall plan still meets the three criteria outlined above.

Deadlines

Again, the MPCA asks that mercury sources with estimated releases over 50 pounds per year send in a letter of intent by January 15, 2000. After that, we expect sources to submit initial proposals by March 30, 2000, and the details to be worked out with us by

June 1, 2000. The agency will be soliciting voluntary agreements from smaller mercury sources in the state during this time, as well.

Federal Early Reduction Credits: No Guarantee

The MPCA wants to make it as likely as possible that voluntary, proactive mercury reduction efforts under this program are recognized in any subsequent regulatory programs—state or federal. The MPCA will register verified reductions in a state database.

Then, if the federal government establishes regulations with an early reduction credit program, verified reductions under the Minnesota program may be more likely to earn credit than those that don't. The MPCA is prepared to argue for recognition of early reduction credits on behalf of companies with verified, voluntary reductions should new mandatory mercury regulations be imposed under state or federal law.

These state guidelines, however, are not designed to anticipate future federal mercury regulations. Tailoring current state guidelines to try to guarantee early reduction credits in a future federal program would require close coordination and communication with EPA and probably require a complex analysis of "baseline" emission projections. Other legal and technical complications would have to be resolved.

In summary, the MPCA cannot guarantee credits under a future federal program—especially since such a program does not yet exist—but we can provide additional information on what might increase your chances. And we will continue to pursue the issue with EPA.

Data Verification

The MPCA needs enough information to be able to verify that release estimates and claimed reductions are defensible and reasonable. Except in unusual cases, the MPCA will not be completing detailed inspections, on-site verification, or detailed review of final sampling, analytical or data collection documents or procedures. The final measurement and recording procedures needed, however, will vary by industry, project, as well as expected mercury reduction and other factors.

Measurement Protocols and Data Reporting

The MPCA needs good mercury data from the voluntary agreements for at least two reasons. First, we need to be able to verify and confidently report on the progress of your voluntary agreement. Second, we will use the data to refine the statewide mercury inventory and to establish the state's overall progress in meeting reduction goals.

General Data Guidance

This section provides some general guidance on expected mercury measurement and documentation procedures. Mercury sources should generally follow these measurement guidelines, but we will be flexible. If you think an alternative approach would be more logical and sufficient for your specific proposal we are open to discussing it.

Minimize New Reporting

If you already submit mercury data to meet other state or federal requirements, the MPCA might be able to use some or all of that data, and compile it for our purposes. If that is the case, let us know where and when you submit the data. In general, if there is any way we can help make reporting smarter and simpler for you, tell us and we will do whatever we can.

Additional Measurements Likely

Larger mercury sources, however, probably need do additional monitoring for their voluntary agreement, particularly if they want to any of the following:

- verify significant reductions in stack or effluent releases;
- develop or improve a facility mass balance or inventory;
- conduct research or pilot projects; or
- maximize the potential for early reduction credits, in case a future regulatory program covers your industry.

The MPCA could still help by consolidating your reports or exploring other ways to minimize your reporting burden. It is also possible that by accurately measuring and monitoring your facility's mercury releases now, you could reduce or better focus future monitoring and reporting requirements later.

The MPCA Recommends Mass Balance

For major sources, the MPCA recommends that as a first step each facility perform a mass balance between inputs and outputs. Because mercury moves easily between environmental compartments, it is often removed from one source only to be re-released elsewhere.

A good mass balance will also confirm that the flow of mercury through the facility is understood, and will provide a framework for understanding the impact of changes in materials, fuels, process, or pollution control equipment. In addition, a mass balance would help evaluate potential mercury control options and help identify where additional monitoring should be focused. It is often less expensive to reduce mercury in inputs than to capture mercury from outputs.

Finally, the mass balance framework can be used to improve estimates of current mercury releases, to refine estimates of past releases and to improve projections of future releases. If your processes have not changed, a properly conducted mass balance should be a good tool for back estimating releases for the benchmark year of 1990. If release estimates have changed since 1990, the mass balance can help explain what process or input modification caused the change. Note that the statewide goal of 70% reduction from 1990 levels by the end of 2005 is a relative goal, subject to refinements of 1990 baseline release estimates.

Estimate Releases for Benchmark Dates of 1990, 2001, & 2006. If your plan currently anticipates some direct mercury release reductions, please estimate what releases were for 1990 and project any reductions in annual releases that you expect by December 31, 2000 and December 31, 2005, to coincide with the dates in the mercury reduction legislation. Your progress reports should compare actual results expected and why, in order to allow others to learn from your efforts. The basis for the calculations should be clearly laid out. As time progresses, annual reports of emissions would be desirable, along with more detailed retrospective estimates. Estimates for 1990, 2001, and 2006 are essential, and estimates for 1995 and annually after 2000 are desirable.

Maintain Records. Recording periods and methods will vary for different reduction plans and techniques. But logs, periodic sampling, laboratory reports, and inspection reports are commonly used as recording methods. Appropriate records will vary from industry to industry and plan to plan.

Annual Progress Reports. Provide at least one progress report annually—by July 1 of each year, for example. More often would be better, particularly if a breakthrough occurs or a new effort is introduced.

Transparent Analyses. Progress reports will have to show how you measured or estimated mercury releases, including measurement methods, and the accuracy/replicability of the sampling and analytical methods. Reported results will have to be detailed enough for reviewers to understand uncertainties in your estimates.

In some cases, you will have to strike a balance between an ideal level of accuracy and the sampling, time, and laboratory expense needed to reach that ideal. Taking the time to clearly describe your assumptions and calculations so that they are transparent—simple and easily understood—may in some cases be more cost effective and persuasive than additional sampling. The MPCA is open to innovative ways that you can focus your measurements in ways that will be most useful for evaluating your progress and most useful to the overall mercury inventory.

Detailed Technical Procedures: Case by Case

Reaching the right balance between data needs and burdens will be important to the success of the voluntary agreement program. In general, rather than anticipating the level of detail needed to verify results for multiple industries with multiple proposals, we will use a case-by-case approach. Agreement on technical details will have to be worked out with the MPCA for each proposal, usually within one month or so after we accept an initial proposal. Once final, the detailed procedures and measurement techniques agreed on would be available to other participants and the public.

Each of the following industry sectors will have somewhat different interests in the program and will present different analytical and technical challenges:

- Electricity Generation (Coal)
- Taconite Facilities
- Oil Refineries
- Publicly Owned Treatment Works
- Metal Shredders and Processors
- Installed Mercury or Mercury-Products Removal

We expect sources with complicated analytical and sampling plans to coordinate closely with MPCA staff, and perhaps each other, to ensure that their mercury reduction efforts can be verified and registered under this program. Again, we can change sampling, documentation and measurement details after we start, if something's not working and needs to be revised.

Publicity and Public Reporting Protocol

The Minnesota Pollution Control Agency (MPCA) will generally follow its regular, established procedures in announcing voluntary agreements between the agency and mercury sources and reporting on the general progress of the program.

Public Reporting Procedures

The MPCA must prepare two legislative reports that are required by the 1999 Mercury Reduction Act. In addition, the MPCA will periodically issue press releases and information updates to the interested public and the press. General progress updates on the voluntary agreements and other mercury programs will be released, first in late spring, 2000, and then once or twice a year after that. Additional press releases, informational mailings, or announcements are likely if and when significant new voluntary mercury reduction agreements are finalized or for other events.

The MPCA will expand its World Wide Web site to provide an extensive information clearinghouse on mercury reduction activities efforts and developments nationwide. This information will be developed primarily for mercury sources but it will be available to the general public as well. The web site will also provide updated information on the content

and status of voluntary mercury reduction agreements as well as other aspects of the mercury reduction efforts.

Press Releases

As a matter of policy, the MPCA does not issue joint press releases with regulated parties. When regulated parties want joint releases, the MPCA encourages them to issue their own press releases about voluntary agreements. The agency will, if feasible, consider joint review of the respective releases to ensure that the information in them is accurate. The MPCA and regulated parties may suggest changes and reasons for them, but final decisions about content of releases will rest with the respective parties.

Public Information Status

Draft agreements and other documents that are submitted to the MPCA are public information unless validly designated as protected non-public data under the state Data Practices Act.

Agency Won't Critique Substance of Voluntary Agreements

The MPCA will review a proposal to see if it meets the three minimum criteria needed for acceptance into the program. But the agency will generally not critique or publicly comment on the substance or adequacy of voluntary agreements or directly compare the efforts of individual mercury sources or sectors.

The MPCA will regularly report on the content and progress of the agreements. So, if an agreement is withdrawn or substantially modified, that information will be available to the public. In addition, MPCA staff may comment directly or indirectly on voluntary agreements if necessary to help inform the MPCA board or other decision-making groups regarding permitting or environmental review of specific projects that involve mercury emissions.

Voluntary vs. Mandatory Reduction Efforts

The 1999 mercury reduction law (Minn. Stat. § 116.915) states that the MPCA shall implement the strategies recommended by the MPCA advisory council—including voluntary agreements—to reach the statewide mercury reduction goals..

Room to Breathe

The MPCA recognizes that if the voluntary agreement program is to succeed, the agency must allow mercury sources room to try out and revise ideas without the threat of immediate, new “command and control” regulations. We also recognize that mercury source’s enthusiasm for the voluntary program will collapse if elements of their agreements are quickly turned into mandatory permit conditions without their consent.

Drawing the Line

On the other hand, the 1999 law does not require—or even allow—the MPCA to restrict or modify its authority to impose mercury limits or permit conditions for specific facilities under specific circumstances. For individual projects, the agency cannot change its normal review, comment, or decision-making process either because (1) there is a voluntary mercury reduction program in place or (2) because a specific facility is directly or indirectly part of a voluntary agreement. We believe that, when necessary, mercury issues in individual permits can be resolved through mutually agreed upon permit conditions.

No Link

So, there is no direct link between voluntary mercury reduction agreements and mandatory, enforceable permit limits or conditions for any particular facility. For example, no mercury source will be required to enter into a voluntary agreement—as a permit condition or otherwise. And participation in the voluntary agreement program does not affect whether mandatory, enforceable limits or conditions are necessary for any given facility. By definition, voluntary efforts are those that go beyond existing legal requirements.