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Chapter 5 Compliance & Enforcement for a TIP

It is essential that your Tribal Implementation Plan (TIP) includes legally enforceable requirements for measuring and reporting emissions from the facilities that the tribe regulates. These requirements will allow your tribe to determine the success or failure of facilities in achieving the emissions reductions necessary for reaching the tribe's air quality goals. To prove that they are making those reductions and complying with applicable emission limits, facilities will need to measure or monitor their emissions and report them to the tribe. This chapter provides information on establishing requirements for facilities to measure and report their emissions, and programs to enforce the regulations in your TIP through inspections, notices of violation, and fines.

Measuring & Reporting Emissions

Which emission measurement techniques must the tribe require?

The tribe can require some facilities to determine emissions indirectly and require other facilities to measure emissions directly, depending on their size, processes, and emissions.

Emission measurement requirements must be included in your tribe's TIP.[1] The appropriate measurement technique may depend on the type of facility, the pollutant to be measured, the type of process, and/or the nature of the facility's emission limitation. The quantity of emissions or size of facility may also be considered when setting these requirements because small facilities (which may be minor sources) may have a compelling need for the most economical measurement and reporting requirements.

There are three types of emission measurement techniques:

» Indirect measurement
» Periodic direct measurement (or "source testing")
» Continuous direct measurement

" Indirect measurement

Indirect measurement of emissions may be a suitable requirement for facilities with certain types of emissions. For example, the wood furniture industry includes many facilities that are sources of volatile organic compounds (VOC) emissions. A common method for reducing emissions from wood furniture manufacturers is requiring limitations on the VOC content of primers, paints, and other coatings. For example, EPA's emission limitation for topcoats (the final coating on a piece of wood furniture) is 0.8 lb VOC/lb solids (as applied).[2] "As applied" is the actual VOC concentration of the coating after any thinners have been added. "As purchased" is the VOC content of the coating before any thinner is added. The EPA has also set emission limitations for the other coatings used by the industry.

A furniture manufacturer could demonstrate compliance by using only "compliant coatings" (coatings that meet the emission limitations), maintaining records on the VOC content of coatings, and documenting the calculations of

the as-applied VOC content of the coatings used. The furniture manufacturer would need to keep accurate records of all the specific coatings and thinners it uses and the volume of coatings and thinners used. It would need to obtain the VOC content of the coatings and thinners from the product data sheets that are prepared and certified by coating and thinner manufacturers. Thus, the furniture manufacturer would certify emissions rates with records and calculations, but without directly measuring emissions.

This indirect measurement technique may also be appropriate for facilities if the individual sources of emissions are very numerous or dilute and hence cannot practically be connected to an exhaust vent or control device. For instance, a large wood furniture factory will have multiple production lines, dozens of spray booths and other applicators, and drying areas. The option of using compliant coatings and following the associated reporting requirements may be the least costly approach to meeting and demonstrating compliance with VOC emission limits.

" **Periodic direct measurement**

Another measurement option is to directly test emissions from a source to determine if it is in compliance with its emission limitations. Source testing is usually conducted under the most extreme conditions that can be reasonably expected at the facility, such as maximum and minimum production capacities. The tribe may require periodic retesting, for example every one to five years, to ensure that the source is continuing to comply with its emissions limitations.

The EPA has published approved emission test methods for criteria pollutants in Title 40 of the Code of Federal Regulations (CFR), part 60 Appendix A and part 40 Appendix M.[3] Links to these test methods can also be found at EPA's Emission Measurement Center website at www.epa.gov/ttn/emc/.

" **Continuous direct measurement**

Continuous direct measurement can be accomplished using a continuous emission monitoring system (CEMS). A CEMS uses probes placed in the path of exhaust gases to continuously measure pollutant emissions. Pollutant analyzer measurements and a conversion equation, graph,

CEMS monitoring.[4]

or computer program produce results in units of the applicable emission limitation or standard.

Large stationary sources such as power plants, pulp and paper mills, and smelters usually exhaust large volumes of combustion or process gasses through stacks. CEMS are advantageous for these facilities because they create timely and accurate records of compliance with emissions limits. The EPA requires some facilities, such as fossil fuel-fired power plants, sulfuric acid plants, nitric acid plants, and fluid bed catalytic cracking unit catalyst regenerators at petroleum refineries, to use CEMS.

How can visible emissions (opacity) be monitored?

Many stationary sources discharge visible emissions in the form of black and white plumes. Opacity refers to the degree to which a plume reduces the transmission of light, obscuring the view of an object in the background. Higher opacity means greater visibility impairment.

Implementation plans must include opacity limits for particulate matter.[5] These regulations often limit opacity from agricultural and wood waste burners, charbroilers, and other stationary sources. Compliance can be determined by observers following the appropriate EPA reference methods, such as Method 9 - Visual Determination of the Opacity of Emissions From Stationary Sources.[6] The EPA trains and certifies observers in the use of these methods. Your tribe does not need a TIP to participate in training.

Which procedures for reporting and record-keeping must the tribe require?

Your TIP must require the regulated facilities to report and keep records of the information your tribe needs to determine compliance with, and enforce, the emissions limitations and other requirements that your tribe has set. The tribe needs to set schedules for submitting reports to ensure that the information is reported in a timely manner. For example, data from CEMS must be reported periodically (e.g., quarterly) to demonstrate compliance with emission limits.

The specific information required from a facility depends on its means of demonstrating compliance with the

emissions limitations and how your tribe plans on using the data once it is submitted. Different test methods, performance standards, and regulations will have different data reporting requirements. For example, if your tribe restricts VOC emissions through use of compliant coatings, your tribe should require coatings users to keep records on coating usage and to submit semiannual compliance certifications. The coatings users should possess certified product data sheets for all regulated coatings. Their records should document the VOC content (as applied) of each coating and the procedures for calculating the as-applied values. The compliance certifications should state that the coatings documented in the product data sheets are the coatings actually used at the facility.

How does a tribe start measuring emissions?

A tribe starts measuring emissions using one of the three measurement techniques mentioned previously. Using the VOC situation above, if a tribe required indirect measurements, the tribe could request the facility's records and then calculate their "as-applied" values. To take periodic measurements, a tribe could require the facility to do a source test using a Federal Reference Method, such as those in 40 CFR Part 60 Appendix A and Part 40 Appendix M, and then submit the report to the tribe. For continuous measurement, a tribe could require the facility to submit its CEMS data report directly to the tribe. When requiring the facility to undergo a source test, it is recommended that you understand which Federal Reference Methods are required to be able to use the results of the test.

How does a tribe include measuring and reporting in your TIP?

In the TIP, a tribe must identify the regulated sources, the pollutants that must be measured or monitored, acceptable measurement and monitoring techniques, the data to be reported, and the frequency of measurement and reporting. Tribes must also explain how they will use the reported data, such as for compliance assurance, and for an emissions inventory. For more information on measuring and reporting emissions, see EPA's Emission Measurement Center at www.epa.gov/ttn/emc/.

Your regional EPA office can also provide assistance (see Appendix A, *Tribal Contacts at EPA*).

Developing an Enforcement Program

Why is an enforcement program needed?

It is very important that tribes establish the authority and procedures necessary to ensure compliance with the emission limitations, control technology requirements, and other requirements in their TIP. One basic purpose of regulations is to list the actions that the owners and operators of sources must take to help achieve your tribe's air quality goals. The second basic purpose is to specify the penalties that sources will incur for failing to comply with the regulations. Two appendices in this document can help your tribe write enforceable regulations: *TIP Enforceability Checklist* (Appendix H) and *Regulation Development* (Appendix J).

What are the elements of an enforcement program?

A demonstration that the tribe can enforce the regulations it adopts must accompany a TIP. And, a TIP should include an enforcement program for its regulations. For example, the tribe must have the authority to enforce any regulation included in the attainment or maintenance strategy or preconstruction permit program to assure compliance. An enforcement program should include all of the following elements:

» Resolutions and laws passed by the tribal government to establish authority to do inspections and enforce laws

» Procedures as to how emission sources monitor their emissions and periodically report emissions data and other information needed to determine compliance to the tribe

» Procedures for inspecting sources to verify that emission limits are met, issuing notices of violations, and assessing fines

» Evidence that the authority to require owners and operators of emission sources subject to tribal regulations to monitor processes, measure emissions, keep records, make reports, etc., similar to EPA's

authorities under section 114 of the CAA has been adopted

» Evidence that trained staff are available and maintained to perform inspections (described below)

Limitations on a tribe's criminal enforcement authority will not prevent TIP approval. In some cases it may be appropriate for the tribe to enter into a Memorandum of Agreement with EPA to cover certain elements of its enforcement program as described in 40 CFR 49.7(a) and 49.8. (Memorandum of Agreement is discussed in the "Must your tribe posses criminal enforcement authority?" section.)

How is tribal enforcement authority established for a TIP?

The CAA requires your tribe to demonstrate that you have adequate authority under tribal law to carry out the TIP.[7] The tribal government must make the emissions reductions and limits that are included in the TIP part of the tribal code. Acting pursuant to tribal law, your tribe's governing body must provide a tribal agency, such as the environmental agency, with the authority for enforcing the requirements in its TIP. To demonstrate enforcement authority to EPA, your tribe may need to adopt rules providing for the authority to enter a regulated facility and inspect it, conduct stack tests and opacity tests, issue violation notices and fines, and pursue other enforcement actions described below. These rules support the TIP but would be separate from it. Of course Tribal governments already have their own authority to adopt tribal law.

Haze on the Fort Hall Reservation, home of the Shoshone-Bannock Tribes. A major stationary source on the reservation contributes to the PM_{10} nonattainment designation (see Chapter 1). (Photo courtesy of the Shoshone-Bannock Tribes.)

In order for your tribe to be approved to administer a federal program (such as the Prevention of Significant Deterioration, or PSD, program), the tribal government must request formal approval from the EPA of enforcement authority as one part of the overall approval of authority to administer the program. Again, your tribe must adopt rules to demonstrate enforcement authority.

What enforcement actions must your tribe be prepared to take?

There are several enforcement actions your tribe must incorporate into its program for enforcing EPA-approved regulations, including:[8]

» Performing compliance evaluations
» Issuing administrative sanctions
» Taking civil action
» Issuing sanctions
» Issuing field citations
» Taking emergency action

Compliance evaluations can be full evaluations, partial evaluations or investigations at a facility.[9] A full compliance evaluation would determine the current compliance status of all regulated pollutants from all regulated emission units within a facility. It would also assess the facility's ability to maintain compliance at each regulated emission unit. A full compliance evaluation could take a year to complete (up to three years for a very large facility) and should include a review of all required reports (e.g., periodic monitoring and excess emissions reports, malfunction reports), a review of facility records and operating logs, assessments of control device operating conditions and performance, assessments of process parameters and operating conditions, visible emissions observations, and emissions measurements where necessary or appropriate. A partial compliance evaluation would focus on a subset of regulated pollutants, regulatory requirements, or regulated emission units at the facility. An investigation is a more in-depth assessment of a particular issue at a portion of a facility that is usually undertaken based on information discovered during a full or partial compliance evaluation.

Timucuan Ecological and Historic Preserve, FL
This preserve was established to protect one of the last unspoiled coastal wetlands on the Atlantic Coast and to preserve historic and prehistoric sites within the area. The area was inhabited by the native Timucuan people over four thousand years before the arrival of the first Europeans.
(Photo courtesy of the National Parks Service)

If someone has complained about an emission source, the tribe should inspect it promptly to evaluate compliance. The tribe should have both planned and unplanned inspections. If sources know the tribe will be inspecting regularly for excess emissions, they have a greater incentive not to emit illegally. Inspectors should receive basic inspector training in health, safety and respiratory protection, and training in legal, technical, and administrative subjects, and communication skills. Inspectors should also receive specific training regarding air pollution sources, controls, regulations, and monitoring and testing techniques. Inspectors should receive medical monitoring, if needed.[10] Inspectors from the regional EPA

Natchez Trace Parkway, Mississippi
Established May 18, 1938, the parkway follows a historic Indian trail between Nashville, TN and Natchez, MS. Significant historical sites such as Emerald Mound, the second largest ceremonial mound in the United States, are found throughout the parkway.
(Photo courtesy of the National Parks Service)

office will accompany newly trained inspectors at the tribe's request.

Administrative sanctions can be written letters to a source indicating that it is violating a regulation. These sanctions could take the form of warning letters, violation notices, and orders requiring the source to come into compliance. These sanctions should include how the source must come into compliance and the schedule by which it must do so. The source can discuss the violation and sanction with the enforcement authority; however, if the order is disregarded, it may be followed by a civil action.

A **civil action** is the process by which the enforcement authority assesses a civil penalty against a source. Civil penalties may be up to $27,500 per day (adjusted for inflation) of a violation.[11]

Sanctions could include restraining orders or orders prohibiting businesses from functioning normally until they comply with regulations. Sanctions could also lead to criminal proceedings.

For a "knowing" violation of the CAA, violators may be charged with felonies. They may be **criminally prosecuted**, fined, and imprisoned. A "knowing" violation is one in which the responsible party is aware of an environmental regulation, yet still takes an action that causes the regulation to be violated. (Additional information on criminal enforcement is provided below in the section "Must your tribe possess criminal enforcement authority?"). **Emergency actions** can also be taken against a source when emissions pose an immediate danger.

Are there any occasions that warrant exceptions to enforcement actions?

Yes, there may be. Short and infrequent periods of excess emissions may occur during periods of startup and shutdown. Sometimes a piece of equipment will malfunction and it will be necessary for the operator to bypass pollution control equipment in order to prevent injury to the people working at the facility. Although EPA views all excess emissions as violations of the applicable emission limitation, it recognizes that the imposition of a penalty for a sudden and unavoidable malfunction caused

by circumstances beyond the control of the owner or operator may not be appropriate. Accordingly, the enforcement authority can use its "enforcement discretion" during these episodes to refrain from taking an enforcement action. These types of situations should be examined on a case-by-case basis. The enforcement authority should consider whether the source can adequately demonstrate that the excess emissions could not have been prevented through careful planning and design, and that bypassing of control equipment was unavoidable to prevent loss of life, personal injury, or severe property damage.[12]

Must your tribe possess criminal enforcement authority?

EPA recognizes that, in certain circumstances, Indian Tribes have limited criminal enforcement authority. Such limitations will not prevent EPA from approving a TIP if the tribe and the EPA Region enter a Memorandum of Agreement that will allow EPA to investigate and prosecute environmental crimes. Therefore, if the program for which your tribe is seeking approval for requires it to assert criminal enforcement authority, but the tribe is precluded from asserting such authority, your tribe and the EPA Region must agree to procedures by which the tribe will provide potential investigative leads to EPA and/or other appropriate Federal agencies in an appropriate and timely manner. The procedure must cover all circumstances in which the tribe cannot exercise applicable enforcement requirements.[13]

Does EPA have enforcement power on reservations?

Yes, EPA has the responsibility and authority, under the CAA, to enforce the regulations in an approved TIP. The EPA would exercise its enforcement authority if for some reason your tribe's environmental agency does not or cannot enforce the EPA approved regulations in your tribe's TIP. The EPA will work cooperatively with your tribe to develop a means to enable the facilities to comply, providing technical support and consultation as necessary and consistent with EPA policies. In those situations where such assistance does not result in compliance, EPA may, consistent with EPA policies, take criminal, civil, judicial and/or administrative enforcement actions against the facilities (whether they are owned or managed by the tribe or by private parties) in order to protect human health and the environment. The EPA will notify your tribal

government of any anticipated enforcement action and consult with them on a government-to-government basis prior to initiating any enforcement action.[14]

How does a tribe start developing an enforcement program?

The Cherry Creek Reservation of the Cheyenne River Sioux in North Central South Dakota.
(Photo courtesy of the Cheyenne River Sioux.)

The EPA provides several sources that can assist your tribe in developing an enforcement program.[15]

» The Office of Enforcement and Compliance Assurance (OECA) has many resources that may help the tribe develop and implement enforcement measures.

» The National Enforcement Training Institute (NETI), run by OECA.

» The American Indian Lands Environmental Support Project (AILESP), developed by OECA.

» Two appendices in this document can help your tribe write enforceable regulations: *Enforceability Checklist* (Appendix H) and *Regulation Development* (Appendix J). Your regional EPA office can also provide assistance (Appendix A).

Conclusion

Adoption and implementation of adequate enforcement authorities (authorities to collect information, monitor emissions, perform compliance evaluations, issue sanctions, assess fines, etc.) is vital to the success of achieving the emission reductions necessary to reach the air quality goals your tribe set in their TIP. Once your tribe has developed its enforcement authorities, it can hold public hearings, adopt the TIP, and submit it to EPA for approval as described in Chapter 6.

Endnotes

1. See the CAA section 110(a)(2)(F) for emissions monitoring and reporting requirements for stationary sources. See 40 CFR 51.210 through 51.214 for monitoring and record-keeping regulations.

2. More precisely, this limitation is one component of the presumptive norm for RACT for wood furniture manufacturing operations.

3. EPA also has approved test methods for other pollutants in 40 CFR 60 Appendix A, 40 CFR 61 Appendix B, and 40 CFR 63 Appendix A.

4. Image provided courtesy of Air Resource Specialists, Fort Collins, CO.

5. The requirement for states to establish opacity limits in SIPS is given in 40 CFR 51.212(b).

6. Visible emission limits can be determined by following EPA Methods 9 and 22, available at 40 CFR 60 Appendix A and at the Emission Measurement Center's promulgated test methods site (www.epa.gov/ttn/emc/promgate.html).

7. For more information on tribal enforcement authority, see CAA section 110(a)(2)(E).

8. See the CAA section 120 for more information on noncompliance penalties.

9. See the *Clean Air Act Stationary Source Compliance Monitoring Strategy*, Memorandum from Michael Stahl, Director of the Office of Compliance, April, 2001.

10. For more information on standards for inspectors, see the Office of Enforcement and Compliance Assurance guidance document titled, *Authorization Criteria for State, Tribal, and Territorial Inspectors*, at http://es.epa.gov/oeca/main/statetribal/stateandtribalinsp.pdf. For more information on training inspectors, contact your regional EPA office (see Appendix A).

11. OECA's description of noncompliance penalties regarding enforcement of Clean Air Act Amendment programs can be found at http://www.epa.gov/compliance/civil/programs/caa/caaenfstatreq.html.

12. For more information on EPA guidelines on emissions during malfunctions, startups, and shutdowns, see the memorandum from S. Herman (EPA Office of Enforcement and Compliance Assurance) and R. Perciasepe (EPA Office of Air and Radiation), "State Implementation Plans (SIPs): Policy Regarding Excess Emissions During Malfunctions, Startup, and Shutdown," September 1999 (www.epa.gov/ttn/oarpg/t1pgm.html).

13. For information on criminal enforcement authority and the Memorandum of Agreement, see 40 CFR Part 49.7(a)(6) and 49.9.

14. Federal power to enforce approved implementation plans is established in the CAA section 113. The EPA's *Guidance on the Enforcement Principles Outlined in the 1984 Indian Policy* (Steve Herman, January 17, 2001), provides information on EPA's enforcement policies against Tribal facilities.

15. This chapter gives the following references for developing an enforcement program:
    » The Office of Enforcement and Compliance Assurance (OECA) has many

enforcement resources, including "virtual" (telecommunications-based) Compliance Assistance Centers for specific industry sectors that have large numbers of small businesses and entities that face federal regulation (http://es.epa.gov/oeca/main/compasst/compcenters. html). The sectors include printing, metal finishing, automotive services and repair, printed wiring boards, small chemical manufacturers, and agriculture. The centers are designed to provide comprehensive, easy-to-understand compliance information, fact sheets, and other tools.

» OECA also runs NETI, the National Enforcement Training Institute, which is responsible for training federal, state, local, and tribal lawyers, inspectors, civil and criminal investigators and technical experts in the enforcement of environmental laws. The NETI provides courses on case support, statute enforcement, compliance assistance, and environmental criminal enforcement. Training is provided at EPA Regional offices, other state sites, and NETI training centers in Washington, DC, Colorado, and Georgia. For more information, see www.epa.gov/oeca/neti or call 1-800-EPA-NETI.

» OECA has also developed the American Indian Lands Environmental Support Project (AILESP) which includes a database with recent multi-media point-source releases, the potential impacts of contaminants, and recent compliance and enforcement histories for facilities located on and within five kilometers of tribal lands (http://es.epa.gov/oeca/ailesp). The AILESP database assimilates and synthesizes disparate data sources and integrates them into a geographic information system (GIS) that is publicly available.

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