UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

MEMORANDUM

SUBJECT: Use of Next Generation Compliance Tools in Civil Enforcement Settlements

FROM: Cynthia Giles, Assistant Administrator

TO: Regional Counsels
Regional Enforcement Division Directors
Regional Enforcement Coordinators
OECA Office Directors
Office of Civil Enforcement Division Directors
Office of Site Remediation Enforcement Division Directors
Federal Facility Enforcement Office Staff Directors

I. Introduction

Next Generation Compliance is our initiative to increase compliance with environmental regulations by using advances in pollutant monitoring and information technology combined with a focus on designing more effective regulations and permits to reduce pollution. Next Gen consists of five interconnected components, including Innovative Enforcement, each of which is designed to move us forward toward higher compliance and more environmental benefits from our regulations and enforcement authorities.[1] This memorandum focuses on the use of Next Gen compliance tools in civil enforcement settlements, which is a subset of the Innovative Enforcement component.

While case teams must consider a number of different case-specific facts and factors in arriving at appropriate settlements that achieve environmental compliance and are consistent with relevant law and applicable EPA guidance,[2] case teams are expected to consider these Next Gen compliance tools in all cases other than expedited settlements, and to include them whenever appropriate in civil judicial and administrative settlements.[3] These tools can be incorporated into settlements in a variety of ways, such

[1] For a full description of Next Generation Compliance see the *Next Generation Compliance: Strategic Plan*, October 2014, at http://www2.epa.gov/compliance/next-generation-compliance-strategic-plan-2014-2017.

[2] This memorandum is to be read and implemented in conjunction with other OECA civil settlements guidance. Guidance documents that are publicly available can be accessed at http://www2.epa.gov/enforcement/policy-guidance-publications.

[3] This memorandum is intended for use by EPA personnel and does not create any right or benefit, substantive or procedural, enforceable at law by a party against the United States, its agencies, its officers, or any person. This memorandum is not intended to supersede any statutory or regulatory requirements or agency policy. Any

as injunctive relief, mitigation, or Supplemental Environmental Projects.[4] The extent to which these tools are appropriate and how they are included in a settlement will depend on the particular facts and circumstances of each case.[5]

Next Gen compliance tools in settlements are often defined by one or more of these three key features: 1) use of a practice or requirement that is not yet commonly included in most settlements; 2) use of modern information technology and/or advanced technology so that information about pollutant releases and their qualitative levels is available closer to real time, is more accessible, and is more complete; and 3) use of approaches to provide an effective structure for the settling party to comply with settlement requirements without increasing the EPA's oversight burden.

More specifically, these tools include:[6]

- Advanced monitoring, including both point source emission/discharge monitoring and ambient monitoring (e.g., fence-line monitoring of air pollution at the border of a facility),
- Independent third party verification of a settling party's compliance with settlement obligations,
- Electronic reporting, and
- Public accountability through increased transparency of compliance data.

Including these tools in settlements can enhance compliance with settlement provisions and environmental requirements by: 1) helping regulated entities more easily identify and address environmental compliance problems and report compliance information to the EPA and 2) facilitating review and analysis by the EPA and the public of meaningful environmental compliance information. Whenever appropriate, the agency will use its legal and settlement authorities to find innovative and effective ways to incorporate Next Gen compliance tools in enforcement settlements.[7]

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inconsistencies between this memorandum and any statute, regulation, or policy should be resolved in favor of the statutory or regulatory requirement, or policy document, at issue.

[4] See policies on Supplemental Environmental Projects at http://www2.epa.gov/enforcement/policy-guidance-publications#sep and EPA's memorandum on "Securing Mitigation as Injunctive Relief in Certain Civil Enforcement Settlements (2nd Edition) (Nov. 14, 2012)" at http://www2.epa.gov/sites/production/files/2013-10/documents/2ndeditionsecuringmitigationmemo.pdf.

[5] Next Gen compliance tools can be considered in settlements that require some form of injunctive relief but may also be appropriate to consider as SEPs in certain penalty-only cases.

[6] This list of Next Gen tools is not exhaustive. There may be other Next Gen approaches that do not easily fit into one of these four categories, yet are equally effective at increasing compliance. For example, tools in which the settling party's actions will not only improve its compliance but are also directed at improving compliance among its distributers, vendors, contractors, or suppliers.

[7] Fully consistent with the expectations set forth in this memorandum, EPA's FY2015 Action Plan for the Cross-Agency Strategy for Communities, states in section 3 that by September 30, 2015, EPA will seek to incorporate the use of monitoring tools into negotiated enforcement settlements or EPA-issued permits in 1-2 environmentally overburdened communities per region as appropriate. The Action Plans can be found at http://www2.epa.gov/planandbudget/fy-2015-cross-agency-strategies-action-plans.

II. Benefits of Next Generation Compliance Tools

All four types of Next Gen compliance tools discussed below have the potential to promote compliance and provide benefits to the EPA, the public, and settling parties when they are incorporated into enforcement settlements. Some are particularly effective when used in tandem (e.g., fence-line monitoring and transparency). Use of these tools can help the EPA conserve oversight resources by having settlement compliance information provided in a more readily available format and available to outside parties (such as the public) who can assist in monitoring compliance. Some tools allow individuals and communities that are impacted by a facility's environmental noncompliance to have real-time access to environmental information stemming from a settlement. The settling party could benefit from the use of these tools; for example, a more transparent demonstration of compliance with settlement obligations may help the settling party's relationship with its neighboring community. In some cases, the use of these tools may also be appropriate as future conditions in the regulated entity's upcoming permit, and thus the settlement document could specify that the settling party has agreed to such provisions being included in its next permit issuance or modification.

A. Advanced monitoring.

Advanced monitoring refers to a broad range of sampling and analytic equipment, systems, techniques, practices and technologies for better detecting and measuring pollution. Advanced monitoring technology is generally defined by one or more of these factors:

1. Not yet in widespread use in a particular sector or particular regulatory program.
2. Monitors pollutants on a real-time or near real-time basis, often without lengthy lag times for laboratory analysis.
3. Less expensive, easier to use, or more mobile compared to technologies currently in widespread use.
4. Provides acceptable data quality that is more complete or easier to interpret and can meet a specific need.
5. Is an existing technology but used in a new way to provide better information on pollutants, pollution sources, or environmental conditions.

Advanced monitoring includes 1) monitors that can measure emissions or discharges from a particular source and 2) those that monitor pollutants in the ambient environment (such as air, water, soil, products, or building). Advanced monitoring often provides more complete and timely data without lengthy laboratory analysis compared to traditional monitoring. It can also be used to provide communities and individuals with real-time information about pollution that impacts them. Enforcement settlements that include advanced monitoring, and in particular those that require collection of real-time data, may enable a settling party and the EPA to more efficiently and effectively prevent and/or remedy violations or even better identify and remedy pollution problems before they become violations.

A facility collecting real-time environmental data may be able to quickly remedy emissions or discharges over an allowed limit or identify problematic spikes in pollution that might not be as apparent with averaged samples. Advanced monitoring is likely to be most effective when the information is immediately available to the facility operators so they can quickly investigate and respond to elevated pollution levels. Further, advanced monitoring becomes a more powerful compliance driver when the information is also provided to the EPA, states, and/or the public. Facilities are more likely to take extra caution to self-police and ensure their operations are addressing pollution problems when the information is transparent.

Including advanced monitoring in settlements provides an opportunity to test new monitoring technologies and may help identify more-effective or less- expensive methods that may later become standard industry practices and included in subsequent regulations. Some of these monitoring tools are already in existence,[8] while others are newly emerging. The agency is keeping abreast of these new technologies and actively identifying ways to incorporate them into our enforcement settlements. Many advanced monitoring technologies have been developed to measure air emissions, and similar advances are being made to measure water pollution. These and newly emerging technologies can be more powerful when they are connected to communications technologies such as email, smart phones, or the internet that notify a facility official, a regulatory agency, and/or the community of pertinent pollutant information. Several recent agency settlements require the use of advanced monitoring with such information being made available to the public.

Advanced-ambient monitoring, such as fence-line monitoring, has the potential to provide valuable information to impacted communities that are located near a facility. These technologies can allow for the collection of ambient air or water data, upstream and downstream of a facility. To be most useful, ambient monitoring should be coupled with tools that make the information transparent, as described below. For example, if elevated air emissions from a refinery or smelter are of concern to a nearby community, a settlement may include monitors at the facility fence line or in the surrounding community. Similarly, a settlement may require water quality monitoring to be conducted upstream and downstream of a discharger, allowing information to be shared with the public about the condition of a particular water body on a near real-time basis.

Enforcement settlements may also require point source advanced water monitoring that is coupled with informational tools where the data can be shared with the potentially impacted community. Such water pollution information may be communicated to the public by automated signal lights on the water body to warn users when a combined sewer overflow is happening or email, text or other electronic notices to the public of such events. Data derived from both advanced-ambient and point-source monitoring can be used to inform future permitting decisions and other regulatory actions. The availability of reliable advanced-ambient and point-source environmental data can also result in more constructive conversations between a facility and its neighbors.

B. Independent third party verification of a settling party's compliance with a settlement.

Independent third party verification can be included in a settlement as a resource-efficient way for the government, the settling party, and the public to obtain information about a facility's compliance with settlement obligations. For example, settlement agreements have used independent third party verification for the following functions:

- To certify as to the proper installation of pollution control equipment;
- To ensure the appropriate design of a landfill cap;
- To oversee the closure of a concentrated animal feeding operations lagoon; and
- To oversee compliance with various settlement requirements.

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[8] Examples of existing advanced monitoring technologies include infrared video cameras to "see" emissions, mobile monitors such as geospatial measurements of air pollution (GMAP), fence line monitors such as the ultraviolet differential absorption spectroscopy measurement (UVDOAS), continuous emissions monitoring (CEM), solar occultation flux, and differential absorption light detection and ranging methodology (DIAL), among others.

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This type of tool is particularly valuable where settlements are complex and require long-term injunctive relief, especially in light of limited agency resources. The key requirement for establishing third party verification is ensuring that the verifier is independent and qualified. There is a growing literature on how to establish effective independent third party verification programs.[9] Third party verifiers should be required to provide their findings and reports to the EPA at the same time as they provide them to the settling party, and the agency will then exercise its discretion to determine whether the defendant is in compliance with the settlement obligations. In general, if the third party is allowed to provide the settling party or its counsel with drafts of the reports prior to submission to the EPA, these third parties should be characterized as consultants to the settling party and not as independent third party verifiers.

C. Electronic reporting.

Electronic reporting is not simply emailing files to the government; rather, at a minimum it describes a system whereby a settling party electronically submits required reports and data in a searchable format. Electronic reporting generally requires that the EPA have systems in place to facilitate data submission from the settling party and tools for the agency to receive and analyze this information.[10] For example, a settling party can electronically submit progress reports to the EPA with data showing how the settlement requirements are being implemented in a way that can be sorted or searched by the agency. When electronic reporting is combined with transparency, the submitted information can also be easily uploaded to an EPA database or website or provided directly on the settling party's website. Electronic reporting can ultimately: 1) provide more accurate, complete and timely information on pollution sources, pollution, and compliance; 2) save time and resources in overseeing compliance with settlement requirements; and 3) reduce paper transaction costs for the settling party associated with creating, mailing, and entering compliance information, as well as error correction.

D. Public accountability through increased transparency of compliance data.

Public accountability drives better compliance. Transparency as a settlement tool refers to providing meaningful information to the EPA and the public about a facility's compliance with specific settlement obligations and other environmental requirements. Settlement information coupled with information about a facility's compliance (or noncompliance) with specific settlement compliance milestones, including monitoring data, can provide valuable information to support the agency's compliance monitoring responsibilities. It also allows the public, impacted community members, neighboring facilities, and other agencies to play a role in assessing compliance. Ways to increase transparency include providing readily accessible, relevant and understandable information on the settling party's website, via a mailer, or through the Enforcement and Compliance History Online database or other publicly available EPA websites. As noted above, combining transparency tools with other tools, such as advanced monitoring, can tie data to geographic information which can provide insights to ambient environmental conditions and significant pollutant loadings.

III. Conclusion

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[9] Lesley K. McAllister, Regulation by Third-Party Verification, 53 B.C. L. REV. 1, 22-23 (2012). And see Esther Duflo, Michael Greenstone, Rohini Pande & Nicholas Ryan, Truth-Telling By Third-Party Auditors And The Response of Polluting Firms: Experimental Evidence From India, 128 Q. J. OF ECON. 4 at 1499-1545 (2013).

[10] Electronic reporting usually begins with a smart form or web tool that guides regulated entities through the reporting process.

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Many case-specific factors must be considered when arriving at an appropriate settlement to resolve environmental violations. Next Gen compliance tools have the potential to improve compliance and provide significant benefits to the EPA, the public, and the regulated community. As such, they should be considered in all civil enforcement cases and incorporated in civil and administrative settlements whenever appropriate.

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