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MEMORANDUM

SUBJECT: Updated Guidance on Emergency Authority under Section 1431 of the Safe Drinking Water Act

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This memorandum transmits the Office of Enforcement and Compliance Assurance’s (OECA) updated guidance on invoking EPA’s emergency authority, granted under Section 1431 of the Safe Drinking Water Act (SDWA), 42 U.S.C. § 300i. This guidance has been reviewed by the Office of General Counsel (OGC) and the Office of Groundwater and Drinking Water (OGWDW). This guidance replaces EPA’s December 28, 1976 guidance entitled “Regional Guidance - Emergency Action on Water Supply Hazards” and September 27, 1991 guidance (Water Supply Guidance No. 68) entitled “Final Guidance on Emergency Authority under Section 1431 of the Safe Drinking Water Act.”

If you have any questions, please contact OECA’s Office of Civil Enforcement’s Water Enforcement Division. If the matter involves a federal facility specifically, please contact OECA’s
Federal Facilities Enforcement Office.

cc: OGC
    OGWDW
    Regional Drinking Water Enforcement and Program Branch Chiefs
UPDATED GUIDANCE ON INVOKING EMERGENCY AUTHORITY UNDER SECTION 1431 OF THE SAFE DRINKING WATER ACT

Purpose of Guidance

Section 1431 has broad application and provides EPA with an effective tool to address public health endangerments concerning public water systems (PWSs) and underground sources of drinking water (USDWs). One of the purposes of this guidance is to encourage a more widespread use of EPA’s Section 1431 authority by more fully explaining situations where this authority may be applied. In addition, this guidance discusses EPA’s internal procedures for taking action under Section 1431 and provides information on how to support and prepare an order. The Office of Enforcement and Compliance Assurance (OECA) is issuing this 2018 guidance update in response to the Office of Inspector General’s (OIG) October 20, 2016 Management Alert entitled “Drinking Water Contamination in Flint, Michigan, Demonstrates a Need to Clarify EPA Authority to Issue Emergency Orders to Protect the Public” (Report No. 17-P-0004).

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Disclaimer

This guidance document on the application of EPA’s emergency powers under Section 1431 of the SDWA is a statement of Agency policies and principles. It does not establish or affect legal rights or obligations. This guidance document does not establish a binding norm and is not finally determinative of the issues addressed. Agency decisions in any particular case will be made by

¹ For purposes of the SDWA, federally-recognized Indian tribes are considered “States” under Section 1401 and Section 1451. Similarly, when interpreting and applying Section 1431, EPA includes tribes, territories, and the District of Columbia under the “State and local authorities” element.
applying the law to the specific facts of the case. The Agency may take action at variance with this guidance.

Overview

Introduction

Drinking water sources can be contaminated by both naturally occurring contaminants or by activities in the watershed such as agriculture or industry. PWSs use treatment and monitoring to identify and protect consumers from such contaminants. Contaminants may be present in or released into the environment as a result of inadequate treatment of drinking water by a PWS, or potentially impact USDWs from sources like a leaking underground storage tank, or failure of an underground injection control (UIC) well, to name a few. These incidents may result in contamination in or near a PWS or USDW that may pose an “imminent and substantial” endangerment to human health.

Authority granted under SDWA Section 1431, 42 U.S.C. Section 300(i), gives the Administrator broad powers to take appropriate enforcement action\(^2\) if he or she receives information that:

- A contaminant is present in or likely to enter a PWS or USDW, or that there is a threatened or potential terrorist attack (or other intentional act designed to disrupt the provision of safe drinking water or to impact adversely the safety of drinking water supplied to communities and individuals), and

- The contaminant or attack may present an “imminent and substantial endangerment” to human health, and

- The appropriate state and local authorities have not acted to protect public health.

The purposes of a Section 1431 action are to prevent an impending dangerous condition from materializing, or to reduce or eliminate a dangerous situation once it has been discovered. Section 1431 focuses on “imminent and substantial endangerment,” which is a broadly defined concept (see discussion below). For example, one major function of Section 1431 is its use as a preventative enforcement measure.\(^3\)

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\(^2\) The legislative history of Section 1431 reflects the intent of Congress to confer broad power to the Administrator in Section 1431 actions. See 120 Cong. Rec. 37591 (1974) (stating the authority under Section 1431 is “broad in scope and provides a necessary enforcement tool for the Administrator”).

\(^3\) The preventative intent of Section 1431 is apparent in the legislative history, which states: “the Committee intends that this language be construed by the courts and the Administrator so as to give paramount importance to the objective of protection of the public health. Administrative and judicial implementation of this authority must occur early enough to prevent the potential hazard from materializing.” H.R. Rep. No. 1185, 93rd Cong., 2d Sess. 35-36, reprinted in 1974 U.S. Code Cong. & Ad. News 6454, 6488 (H.R. 93-1185). The discussion of Section 1431 in this 1974 House Report is shown in Attachment 2 of this Guidance.
As an “emergency” provision, however, Section 1431 should not be used as a substitute for other SDWA provisions, where such other provisions are adequate to protect public health. For example, under the Public Water System Supervision (PWSS) Program, violations of monitoring requirements or even of a maximum contaminant level (MCL) should generally be addressed through use of the enforcement authorities (including administrative order authority) in Section 1414. But if the MCL exceedance may present an imminent and substantial endangerment, then an emergency action under Section 1431 may be appropriate in addition to or in place of any SDWA Section 1414 enforcement action. Examples under the UIC program would include a Class II well injection pressure exceedance that causes movement of fluid into an USDW, or a Class V UIC well operator who is injecting contaminants that may be causing or contributing to an MCL exceedance or otherwise endangering an USDW. Although these generally would be enforced as a violation under Section 1423, a Section 1431 action also may be appropriate if an imminent and substantial endangerment may be present.

1986, 1996 and 2002 Amendments to Section 1431

The 1986 SDWA amendments clarified EPA’s existing authority to order the provision of an alternative water supply by persons who caused or contributed to the endangerment. In addition, the 1986 amendments strengthened EPA’s authority to enforce Section 1431. Previously, Section 1431 provided that EPA could enforce against any person who “willfully” violated or failed or refused to comply with a Section 1431 order. The 1986 amendments removed the term “willfully,” enabling EPA to enforce against any persons, whether or not their actions were willful. Also, the 1986 amendments clarified EPA’s authority to protect USDWs, as discussed on page 7.

Additionally, in 1996, Congress changed the maximum civil penalty from $5,000 to $15,000 per day. The 2002 SDWA amendments inserted language regarding terrorist attacks or other intentional acts designed to disrupt or adversely impact the safety of drinking water.

Delegation of Authority

In January 2017, the Administrator revised Delegation No. 9-17, which delegates the authority to take administrative action under Section 1431 to the Regional Administrators (RAs) and the Assistant Administrator (AA) for OECA. The January 2017 version of Delegation No. 9-17 supersedes

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4 H.R. 93-1185, at 36, states that “Section 1431 reflects the Committee’s determination to confer completely adequate authority to deal promptly and effectively with emergency situations which jeopardize the health of persons.” The Report further states that the authority of Section 1431 should “not be used when the system of regulatory authority provided elsewhere in the bill could be used adequately to protect the public health.” Id.

5 The penalty numbers in SDWA Section 1431 (and other statutes) are annually updated for inflation in accordance with the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015. 28 U.S.C. Section 2461 note. See 40 C.F.R. Section 19.4 for the most up-to-date numbers.
the May 11, 1994 and July 25, 1984 SDWA Section 1431 related delegations. Among other things, the January 2017 revision added a requirement for Regions to consult with OECA before issuing orders under Section 1431. Further, Delegation No. 9-16 was also updated in January 2017. Delegation No. 9-16A requires Regions to notify OECA before commencing a judicial action under SDWA. Under the limited circumstances of a temporary restraining order issued under SDWA Section 1431, Delegation No. 9-16D applies and requires notification to OECA before Regions exercise this authority. While Delegation No. 9-16 specifies notification, Regions are expected to consult with OECA in these instances, as discussed below.

Within OECA, the Office of Civil Enforcement’s (OCE) Water Enforcement Division (WED) has been designated to consult with the Regions on SDWA Section 1431 actions, and the Federal Facilities Enforcement Office (FFEO) has been designated for actions involving federal agencies. OECA is committed to providing feedback to the Regions as soon as possible, which typically is within 24 to 48 hours, and has responded even earlier where the endangerment is acute. In some Regions, the authority to issue Section 1431 orders has been redelegated below the RA level.

Under OECA’s February 1, 2017 “Revised Consolidated Procedures for Regional and Headquarters Coordination on Regulatory Enforcement Cases Involving Nationally Significantly Issues (NSIs)” List B, “any enforcement action invoking the imminent and substantial endangerment authority under SDWA Section 1431” requires consultation with OECA.6

If the order involves a federally recognized Indian tribe or Indian country entity, the Region should consult OECA’s January 17, 2001 “Final Guidance on the Enforcement Principles Outlined in the 1984 Indian Policy.” Where EPA issues an emergency order in Indian country, such actions are generally considered “exigent circumstances” that would not need the concurrence of OECA’s Assistance Administrator as provided for in the “Final Guidance on the Enforcement Principles Outlined in the 1984 Indian Policy.” However, consultation with OECA is still required before the Region takes a Section 1431 action.

Elements of Section 1431 Authority

To apply the authority granted under Section 1431, two conditions must be met. First, the Administrator must have received “information that a contaminant which is present in or likely to enter a public water system or an underground source of drinking water, or that there is a threatened or potential terrorist attack (or other intentional act designed to disrupt the provision of safe drinking water or to impact adversely the safety of drinking water supplied to communities and individuals), which may present an imminent and substantial endangerment to the health of persons.”7 Second, the Administrator

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6 For federal facility matters, see the June 10, 2015 David J. Kling memorandum, “Revised Procedures for Determining Level of Federal Facility Enforcement Office Involvement in Formal Regulatory Enforcement Cases.”

7 It should be noted that unlike several of the imminent and substantial endangerment provisions in other statutes, SDWA Section 1431 uses the term “information” instead of “evidence.”
must have received information that “appropriate State and local authorities have not acted to protect the health of such persons.” To realize the full potential of Section 1431, the key elements of these conditions must be understood. Each element is discussed in greater detail below.

**Contaminant**

Section 1401(6) of the SDWA defines “contaminant” very broadly to include “any physical, chemical, biological, or radiological substance or matter in water.” Under this broad definition, EPA may take action under Section 1431 even when the contaminant in question is not regulated by a National Primary Drinking Water Regulation (NPDWR) or listed in a National Secondary Drinking Water Regulation (NSDWR) under the SDWA (e.g., EPA has not issued a NPDWR for the contaminant or the regulation has been promulgated, but is not yet effective). This authority is supported by the SDWA legislative history. Moreover, listing on EPA’s Contaminant Candidate List, under the Unregulated Contaminant Monitoring Rule, or establishment of a health advisory, are similarly not required for a substance to be considered a contaminant, and are not prerequisites for use of Section 1431 authority.

**Likely to Enter**

Application of the Section 1431 authority is not limited to existing contamination of a PWS or USDW, but also may be used to prevent the introduction of contaminants that are “likely to enter” drinking water. Thus, Section 1431 orders should ideally be issued early enough to prevent the potential hazard from materializing.

**Underground Sources of Drinking Water**

EPA’s Section 1431 authority is not limited to the protection of PWSs. It also extends to the protection of all USDWs, whether or not the USDW currently supplies a PWS. The 1986 amendments clarified EPA’s existing authority to protect USDWs by making this authority explicit in the statute.

The Agency has defined “underground sources of drinking water” in 40 C.F.R. Section 144.3. Under this definition, “USDW” includes both aquifers that currently supply a PWS and those that simply have the potential to supply a PWS (according to the criteria in Section 144.3). The ability to address the

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8 H.R. 93-1185, at 35, states, “The authority to take emergency action is intended to be applicable not only to potential hazards presented by contaminants which are subject to primary drinking water regulations, but also to those presented by unregulated contaminants.”

9 “Administrative and judicial implementation of this authority must occur early enough to prevent the potential hazard from materializing. This means that ‘imminence’ must be considered in light of the time it may take to prepare administrative orders or moving papers, to commence and complete litigation, and to permit issuance, notification, implementation, and enforcement of administrative or court orders to protect the public health.” H.R. 93-1185, at 35–36.
contamination of USDWs (rather than only PWSs) broadens EPA’s authority in two ways. First, it allows EPA to act under Section 1431 where the groundwater source in question is only a potential supplier of a PWS. Second, it allows the Agency to protect water supplies that do not meet the threshold of 25 persons served or 15 service connections in the definition of “public water system” (for example, many private wells) that are at risk because of the contamination or threatened contamination of an USDW.

**Imminent and Substantial Endangerment**

Assuming EPA can show that a contaminant is “present in or likely to enter” the drinking water supply (either PWS or USDW), EPA also must show that a contaminant “may present” an “endangerment” and that the endangerment is both “imminent” and “substantial.”

**Imminent Endangerment**

Section 1431 authorizes EPA to address “endangerments” that are “imminent.” The case law that has developed on these terms (as used in the SDWA or in analogous provisions of other statutes), together with the SDWA legislative history, suggests the following guidance.

An “endangerment” may include not only actual harm, but also a threatened or potential harm.\(^{10}\) No actual injury need ever occur.\(^{11}\) Therefore, while the threat or risk of harm must be “imminent” for EPA to act, the harm itself need not be.\(^{12}\) Public health may be endangered imminently and substantially “both by a lesser risk of a greater harm and by a greater risk of a lesser harm;” this will ultimately depend on the facts of each case.\(^{13}\)

An endangerment is “imminent” if conditions which give rise to it are present, even though the actual harm may not be realized for years.\(^{14}\) Courts have stated that an “imminent hazard” may be declared at any point in a chain of events that may ultimately result in harm to the public.\(^{15}\) For

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\(^{11}\) See Ethyl Corp. v. EPA, 541 F.2d at 13.

\(^{12}\) See U.S. v. Reilly Tar and Chemical Corp., 546 F. Supp. 1100, 1109-10 (D. Minn. 1982) (quoting H.R. 93-1185); U.S. v. Conservation Chemical Co., 619 F. Supp. at 193-94. The Conservation Chemical Co. court, construing similar language in CERCLA, stated that the standard is especially lenient since it authorizes action “when there may be risk of harm, not just when there is a risk of harm.” Id. at 193 (emphasis in original).

\(^{13}\) See Ethyl Corp. v. EPA, 541 F.2d at 18.


example, in U.S. v. Midway Heights County Water District,\textsuperscript{16} individuals were exposed to microbiological and turbidity exceedances, but actual illnesses had not yet been reported. The court found that the presence of organisms that were accepted indicators of the potential for the spread of serious disease presented an imminent (and substantial) endangerment.\textsuperscript{17}

Endangerments can more readily be determined to be imminent where they involve contaminants that pose acute human health threats. Examples include (but are not limited to):

- A nitrate MCL violation when a sensitive population is exposed (e.g., infants less than six months of age).
- A waterborne disease outbreak with or without MCL violations.
- A microbiological MCL or turbidity treatment technique violation with or without a waterborne disease outbreak.
- Migration of untreated sewage directly into or near an USDW.
- A release of surficial contamination that may ultimately migrate to a usable aquifer.
- A reduction or loss of pressure in a distribution system (e.g., due to broken water mains or power outages) that increases the risk of contaminants entering water.
- A sanitary problem such as dead birds or rodents in finished water storage tanks.

However, acute contaminants are not the only ones that might pose an imminent endangerment. Because an endangerment is created by the risk of harm, not necessarily actual harm, EPA should determine whether a risk of harm is imminent. Therefore, contaminants that lead to chronic health effects, such as carcinogens, also may be considered to cause “imminent endangerment”\textsuperscript{18} even though there is a period of latency before those contaminants, if introduced into a drinking water supply, might cause adverse health effects. A factor that a Region may consider is the length of time a population has been or could be exposed to a contaminant. In the SDWA legislative history, the House Report specifically states that an imminent endangerment may result from exposure to a carcinogenic agent.\textsuperscript{19}

\textsuperscript{16} 695 F. Supp. 1072, 1076 (E.D. Cal. 1988).
\textsuperscript{17} Id.
\textsuperscript{18} See Conservation Chemical Co., 619 F. Supp. at 194 (citing legislative history of RCRA Section 7003).
\textsuperscript{19} See H.R. 93-1185, at 36. This view is underscored by the numerous other references in the legislative history to the discovery of carcinogens and potential carcinogens in an ever-increasing number of water supplies. 1974 House Report, supr a, at 6, 10-11, 35; 120 Cong. Rec. 36372, 36374-75, 36398-99, 36401 (1974). This concern was reiterated and strengthened in subsequent Congressional reviews of the SDWA program. House Comm. on Interstate and Foreign
Examples could include (but are not limited to):

- An exposure, or threat of exposure, to chronic contaminants at levels exceeding their MCLs or health advisory levels (e.g., PFOA).
- Exposures to chronic-type contaminants, such as lead, that are present at high enough concentrations to cause not only immediate, but also long-term health effects.

Section 1431 should not be used in cases where the risk of harm is remote in time or completely speculative in nature. However, in determining the imminence of a hazardous condition, EPA may consider the time it may require to prepare orders, to commence and complete litigation, to implement and enforce administrative or judicial orders to protect public health, and to implement corrective action under Section 1431. For example, even where a contaminant is not likely to enter a ground water supply for several months or longer (as can be the case with a ground water plume moving toward a well), EPA may consider this hazard to be “imminent” in light of the time required to implement the actions described above. Further, even where a hazardous condition has been present for some time (even years), case law supports the view that EPA is not prevented from finding that the conditions present an imminent endangerment.

In addition, Section 1431 may be used to address threats to health from exposure pathways other than direct ingestion of drinking water. For example, in U.S. v. Midway Heights County Water District, individuals were exposed to bacteriological and turbidity contamination through uses such as bathing, showering, cooking, dishwashing, and oral hygiene. The court determined that, although the water primarily was not used for drinking water, an imminent and substantial endangerment existed from “human consumption.” EPA has defined human consumption broadly to include these various uses. Section 1431 may be invoked in situations where, for instance, the risks involve exposure to contaminants like Legionella or disinfection byproducts in water vapor from a shower.

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20 This interpretation is supported by H. Rep. 93-1185. See also W.R. Grace & Co. v. United States EPA, 261 F.3d 330, 339 (3d Cir. 2001).
22 See In re FCX, Inc., 96 B.R. 49, 55 (Bankr. E.D.N.C. 1989) (“even when there is an inordinate delay [by EPA], the court must find an immediate danger to public health if in fact one exists”).
23 695 F. Supp. at 1076.
24 See 40 C.F.R. Section 141.801.
Substantial Endangerment

The term “substantial endangerment” can apply to a range of existing or threatened hazards and should not be limited to extreme circumstances. Actual reports of human illness are not required to establish the presence of a “substantial” endangerment to water consumers.25 One court, interpreting “substantial endangerment” as used in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), has stated that “the word ‘substantial’ does not require quantification of the endangerment (e.g., proof that a certain number of persons will be exposed, that ‘excess deaths’ will occur, or that a water supply will be contaminated to a specific degree).”26 Instead, the court found, an endangerment is substantial if there is a reasonable cause for concern that someone may be exposed to a risk of harm. The court stated that a number of factors (e.g., the quantities of CERCLA hazardous substances involved, the nature and degree of their hazards, or the potential for human exposure) may be considered in determining whether there is a reasonable cause for concern, but in any given case, one or two factors may be so predominant as to be determinative of the issue.27 Of course, the emergency authority of Section 1431 should not be used in cases where the risk of harm is completely speculative in nature or is de minimis in degree.28

House Report 93-1185 gives the following examples of what may be considered a “substantial” endangerment:

- “a substantial likelihood that contaminants capable of causing adverse health effects will be ingested by consumers if preventative action is not taken.”
- “a substantial statistical probability exists that disease will result from the presence of contaminants in drinking water.”
- “the threat of substantial or serious harm (such as exposure to carcinogenic agents or other hazardous contaminants).”29

There is no bright line test for when Regions and OECA should consider emergency action; it is always a case specific decision based on the facts in a particular matter. It is important to remember that EPA may consider various types of “information” when determining whether a contaminant “may present an imminent and substantial endangerment to the health of persons.” As part of the required consultation with OECA, a Region can discuss with OECA whether the information available is sufficiently credible and warrants the use of Section 1431’s emergency powers. For a nonexhaustive list of appropriate, potential types of supporting information, see Attachment 4.

27 Id.
28 See H.R. 93-1185, at 35.
29 Id. at 36.
Role of State and Local Authorities

One of the crucial requirements of a Section 1431 enforcement action is that “appropriate State and local authorities have not acted to protect the health of such persons.” Generally, EPA considers the lack of sufficient actions of State and local officials to be a finding the Agency must make, supported by a record, when taking an action under Section 1431. Accordingly, Section 1431 should not be used to deal with problems that are being handled effectively by state (including tribes or territories) or local governments in a timely fashion. Effective and timely State and local actions could include the issuance of an administrative order containing enforceable compliance deadlines and, if necessary, the provision of alternative drinking water. In other situations, for instance where E. coli was detected at a child care facility, an example of a timely State action was the development of an action plan, approved by the Region, that included: discontinued use of the contaminated well; installation of a new, deeper well; provision of interim bottled water to employees; and delay of school start date until a new, safe well was online.

OECA recognizes there are sensitivities associated with determining whether a State or local authority has not acted to protect the health of persons. Section 1431 does not require any finding that a State or local authority has “failed” to act. When assessing State and local actions, it is not a black and white test. Instead, there is often a range of potential responses to a specific situation. For example, State and local authorities intentionally may defer action to, or request action by, EPA because the Section 1431 authority may be more powerful or expeditious. In addition, the State or local authorities may not have acted due to lack of jurisdiction. In other cases, a State may have made a good faith effort to address an emergency, but EPA may determine the State actions have not been effective, or are no longer effective, to protect public health, and, thus, that additional actions are needed. These additional actions may help fill a gap and could be included in an EPA Section 1431 action (e.g., State agency has only provided alternative water to a portion of an impacted area, but information indicates other people are at risk so EPA addresses the rest in a federal order). Further, State or local authorities may decide to act jointly with EPA. In such cases, EPA would determine that State and local authorities have not acted (on their own) to sufficiently protect the health of persons. Therefore, EPA may proceed with Section 1431 actions when State and local authorities are working jointly with EPA.

Section 1431 also provides that before taking action and to the extent practicable in light of the imminent endangerment, EPA shall consult with the State and local authorities to confirm the information on which EPA is basing the proposed action and to determine what action the State and local

30 See Footnote 1.
31 It should be noted one court has held that the receipt of such information is a jurisdictional prerequisite to action under this section. United States v. Occidental Petroleum Corp., No. 79-989 (E.D. Cal. 1980).
32 See H.R. Rep. 93-1185, at 35. This implements legislative intent expressed in House Report 93-1185 to “direct the Administrator to refrain from precipitous preemption of effective State or local emergency abatement efforts.”
33 Reading the SDWA to say that any action by the state (even if minor or ineffective) deprives EPA of authority to act would strip EPA of its statutory emergency powers and be at odds with the clear purpose of the statute to preserve and protect the public health. Trinity Am. Corp. v. EPA, 150 F.3d at 397.
34 Id. at 398-399.
governments are taking or will take. Under Section 1431, then, it is not mandatory to consult with the State and local authorities (i.e., they should be contacted “to the extent practicable”). Nevertheless, the Regions should be aware that EPA will need a basis in the record for the finding. This written basis could be simply a log of a telephone conversation or correspondence between EPA and the State and local authorities.

If EPA has information that State/local agencies are going to act, then EPA must decide whether the action is timely and protective of public health. If EPA determines that the action is insufficient and State and local agencies do not plan to take additional actions to ensure public health protection, in a timely way, then EPA should proceed with an action under Section 1431.

Unlike under Sections 1414 or 1423, a notice of violation (NOV) need not be issued prior to taking a Section 1431 action. No violation of any requirement is needed for a Section 1431 order. An NOV, even if issued, would not be a means of consulting with the State and local authorities to determine whether they have acted in a timely and appropriate manner to protect the health of persons. Rather, an NOV serves as a prerequisite under Sections 1414 or 1423 for the EPA to take certain enforcement actions in primacy states.

The Regions should note that they need to determine that neither State nor local authorities acted adequately to protect public health before bringing a Section 1431 action. The State can be of assistance to EPA in making this determination because the State should be able to identify the appropriate local authorities and may be aware of whether these authorities have taken any actions.

It is important to remember EPA is authorized to act under Section 1431 regardless of whether a State, territory or tribe has primary enforcement authority. EPA has invoked Section 1431 in cases where it is not the primacy agency, but is instead exercising its oversight authority and taking independent, federal action to address an emergency.

35 This language was added from an amendment offered during a House debate on November 19, 1974: “To the extent [the EPA Administrator] determines it to be practicable in light of such imminent endangerment, he shall consult with the State and local authorities in order to confirm the correctness of the information on which action proposed to be taken under this subsection is based and to ascertain the action which such authorities are or will be taking.” In explaining the amendment, Representative Murphy of Illinois stated that it “requires [] the Federal Administrator [to] consult with State and local authorities as to the emergency, what information it is based on, and what action he proposes to take, so that [EPA] can work hand in glove with the local and State authorities.” See 120 Cong. Rec. 36400 (1974).
36 “State health authorities, therefore, must not only have acted, but acted in a way adequate to protect the public health; and EPA, the agency with expertise in this area, determines if the state efforts were adequate.” Trinity Am. Corp., 150 F.3d at 398.
37 Congressional reports and floor debates support the view that Congress inserted this language in Section 1431 (and added certain procedural prerequisites before allowing federal enforcement in a primacy state) simply to avoid duplication between the federal and state enforcement and to preserve the primary responsibility for protecting the public at the state and local levels. H.R. Rep. 93-1185, at 22-34, 35; S. Rep. No. 93-231, 93rd Cong., 1st Sess. 9, 10 (1973); 120 Cong. Rec. 36372, 36374-75, 37591-92 (1974).
Remedial Actions That May Be Ordered

Once EPA determines that action under Section 1431 is needed, a very broad range of options is available. The statute provides that EPA may take actions as may be necessary to protect the health of persons. Moreover, EPA may take such actions notwithstanding any exemption, variances, permit, license, regulation, order, or other requirement that would otherwise apply.38

The actions that EPA may take may include (but are not limited to):39

- issuing orders as necessary to protect the health of persons who are or may be users of such system (including travelers), including orders that require:
  - the provision of alternative water supplies, at no cost to the consumer, by persons who caused or contributed to the endangerment (e.g., provision of bottled water, installing and maintaining treatment, drilling of new well(s), connecting to an existing PWS).
  - information about actual or impending emergencies (e.g., if standard information gathering tools like SDWA Section 1445 would not result in an expeditious response or may not apply in a certain case).
  - public notification of hazards (e.g., door-to-door, posting, newspapers, electronic media).
  - an investigation to determine the nature and extent of the contamination in the environment.
  - a survey to identify PWSs, private supply wells or ground water monitoring wells near potentially contaminated areas.40
  - monitoring of regulated or unregulated potential or identified contaminants.
  - development of a feasibility study to assess potential remedial actions to abate an endangerment.
  - an engineering study proposing a remedy to eliminate the endangerment and a timetable for its implementation.

38 The legislative history supports this view. See H.R. Rep. 93-1185, at 35.
39 The House Report specifically mentions several of these listed actions as among those EPA may take.
40 Portion of the emergency order mandating that Trinity identify all potential users of the contaminated wells in the three-quarter-mile area is not a “‘limitless’ or unduly burdensome task.” Trinity Am. Corp., 150 F.3d at 401.
- control of the source of contaminants that may be contributing to the endangerment, including by halting disposal.

- cleanup of contaminated soils endangering an USDW.

• commencing a civil action for appropriate relief including a restraining order, or a temporary or permanent injunction. The injunction may require the PWS owner or operator, UIC well owner or operator, or the responsible party to take steps to abate the hazard.

Use of Judicial vs. Administrative Orders

Except where the responsible party is a federal agency, the Region may issue a Section 1431 administrative order and/or ask the Department of Justice to file a civil judicial action. 41 A civil referral may be preferable to a Section 1431 administrative order if the Region believes the responsible party will be uncooperative or recalcitrant or if the necessary relief is long-term or otherwise appropriate for supervision by a U.S. District Court (e.g., expected cost of relief is high).

A Section 1431 administrative order offers EPA some unique powers. EPA may issue unilateral Section 1431 orders or enter into administrative orders on consent. Unlike compliance orders (e.g., issued under Sections 1414 or 1423), Section 1431 orders enable the Agency (versus the courts) to order actual injunctive-type relief. This relief is limited only by the usual constraints of the Administrative Procedure Act (APA). The APA requires all Agency actions be reasonable and not “arbitrary or capricious.” 42 Thus, by issuing an administrative order instead of filing a civil judicial action, the Agency rather than the District Court determines the scope and timing of appropriate relief in the first instance.

The recipients of an administrative order may challenge its terms. Under the judicial review provisions of SDWA Section 1448, the petition must be filed within 45 days in the appropriate Court of Appeals (a District Court does not have jurisdiction to hear challenges to a Section 1431 administrative order). If the recipient fails to meet this condition, he or she loses the right to contest the terms of the order.

Section 1431 administrative orders have long been considered final agency action subject to review under Section 1448. Following the Supreme Court’s 2012 decision in Sackett, 43 on March 21, 2013, OECA issued guidance to the Regions about “Language Regarding Judicial Review of Certain Administrative Enforcement Orders Following the Supreme Court Decision in Sackett v. EPA.” In

41 In the case of a federal agency recipient, the action will be a Section 1431 administrative order.
42 5 U.S.C. Section 706(2).
the March 2013 guidance, OECA provided specific language to be included in unilateral orders, such as Section 1431 orders (i.e., respondent may seek federal judicial review) and administrative orders on consent (i.e., respondent waives any and all remedies, claims for relief and otherwise available rights to judicial or administrative review). Regions should include the appropriate Sackett language in their administrative actions (whether unilateral or on consent).

Except where the responsible party is a federal agency, any enforcement actions to require compliance with an administrative order or to seek civil penalties for its violation must be in District Court. Where the recipient is a federal agency, EPA may issue an administrative penalty order under Section 1447(b) of the SDWA for the federal agency’s failure to comply with a Section 1431 administrative order. A recipient who violates or fails or refuses to comply with the terms of the administrative order, may be subject to a civil penalty pursuant to Section 1431(b); a federal agency recipient may be subject to a penalty pursuant to Section 1447(b). 45

**Relationship between Section 1431 and Other EPA Emergency Authorities**

A Section 1431 order can be taken in conjunction with emergency orders under other statutes. Emergency provisions include:

- Resource Conservation and Recovery Act (RCRA) - Section 7003
- CERCLA - Section 106
- Clean Water Act (CWA) – Sections 504(a) and 311
- Toxic Substances Control Act - Section 7
- Clean Air Act (CAA) - Sections 112(r)(9) or 303

Although similar in general terms, each of the emergency provisions of these statutes is somewhat different. Guidance on EPA’s authority to address imminent and substantial endangerment under CERCLA, RCRA, CWA and CAA have been issued by the Agency. 47 For example, Section

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44 For more information about EPA’s federal facility penalty authority under the SDWA, see “Guidance on Federal Facility Penalty Order Authority Under the Safe Drinking Water Act, as amended in 1996,” signed on May 29, 1998 by Steven A. Herman, Assistant Administrator, Office of Enforcement and Compliance Assurance (Steven A. Herman memorandum).

45 See Footnote 5 above regarding annual adjustments for inflation. Also note that for federal agency recipients, “As a matter of practice, EPA will seek penalties against a Federal agency which violates or fails or refuses to comply with a § 1431 order not to exceed [the maximum penalty for non-federal parties] for each day in which such violation occurs or failure to comply continues.” Steven A. Herman memorandum, Footnote 5.

46 CERCLA Section 106 orders against Executive Branch agencies require the concurrence of the Attorney General.

47 “Guidance on CERCLA Section 106(a) Unilateral Administrative Orders for Remedial Designs and Remedial
7003 of RCRA is very broad in that it allows for protection of the “environment.”48 However, it is somewhat limited in that the threat must be caused by a “solid waste.” Section 1431, on the other hand, is limited to the protection of a PWS or an USDW, but covers a broad universe of “contaminants.” Regions may consider issuing joint orders under more than one of these statutory authorities, or separate orders that complement each other. When issuing orders under more than one authority, Regions should be sure to coordinate with each appropriate office. However, if the order is being unduly delayed by coordination difficulties, the Region should proceed with the Section 1431 order, followed by an order under the other statute or statutes.

**Parties over Whom Section 1431 Grants EPA Authority**

Section 1431 by its terms gives EPA broad discretion to issue any orders necessary to protect the health of persons. EPA may issue Section 1431 orders not only to an owner or operator of a PWS, but also, for example, to federal, state, tribal, territorial or local governments; owners or operators of underground injection wells; area or point source polluters; or to any other person whose action or inaction requires prompt regulatory intervention to protect public health.49

In cases where the responsible party is not clearly known, one option is to issue the order to the most likely contributor(s) based on the type of contaminant(s) found in the PWS and/or USDW compared to current and past land practices in the area. As part of the order, EPA can require that a study be performed to more clearly determine the responsible parties. In such a case, additional orders may be issued as knowledge accumulates. Thus, an initial Section 1431 order may merely request records, samples, or other existing data/documents to help clarify what or who caused the endangerment before ordering other actions be taken, and a subsequent order(s) would

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48 Under Section 7003 of RCRA, EPA may “authorize[] the cleanup of a site, even a dormant one, if that action is necessary to abate a present threat to the public health or the environment[,]” but that it ‘could not order the cleanup of a waste disposal site which posed no threat to health or the environment.’ Because the ‘authority conferred . . . by section 1431 of SDWA is quite as broad as that conferred by RCRA,’ we believe the limitations under the latter provision are equally applicable to the former. As is the case with RCRA, EPA cannot order cleanup under section 1431 of SDWA when there is no threat to the public’s health.” *W.R. Grace & Co.*, 261 F.3d at 340 (citing *United States v. Price*, 688 F.2d 204, 214 (3d Cir. 1982)).

49 See H.R. 93-1185, at 35.
address the potential harm. For example, if a PWS is contaminated with benzene, toluene, and xylene, and there are five gasoline service stations located near the PWS, an initial order could require each of the service stations to test for leaks in their underground storage tanks. However, Regions should keep in mind that the delay involved with such an approach (e.g., a series of orders) must be weighed against the danger posed by the contaminant(s) in the water, the need to protect public health as soon as possible and concerns with issuing a broader initial order with additional requirements. For instance, in an area with karst geology and more than one source of nitrate contamination, the Agency, to protect public health, has the authority to issue multiple formal administrative orders containing enforceable milestones (e.g., control discharges) and, if necessary, requirements for the provision of alternative drinking water until compliance is achieved. Issues like this should be discussed during the required consultation with OECA before taking Section 1431 action.

EPA may even use Section 1431 authority to reach parties that are not responsible for the endangerment. Orders to a non-responsible party ordinarily should be limited to those instances where no responsible party exists or is suspected and the issuance of an order to a non-responsible party is the most appropriate means to protect or mitigate the endangerment. For example, an order may require a PWS, contaminated by unknown polluters, to filter or relocate its water source.

**Taking Action Under Section 1431**

**Components of an Administrative Order**

The recommended basic components of a Section 1431 order are:

- EPA’s Statutory Authority
- Findings of Fact
- Conclusions of Law
- Conditions or Actions Required by the Emergency Order - Should also contain a statement that requires the respondent to advise the Agency of his or her intentions to comply with the terms of the order in a specified short time frame (e.g., 24 hours)
- General provisions to address issues such as modification, termination and judicial review (e.g., the *Sackett* language described above)
- Name and Address of EPA Contact
• Opportunity to Confer for Orders Against Federal Agencies

Civil Judicial Action

If a judicial order is sought, the Agency must still determine that an “imminent and substantial endangerment” exists. If proceeding judicially, the Region, OECA and DOJ will draft and discuss the appropriate court filings.

Degree of Support

Development of a Record

The issuance of a Section 1431 order as an administrative action must be supported by an adequate written record. Therefore, the Regions should ensure that the findings of fact in the order are adequately supported by documents in the record showing the basis for EPA’s technical determinations. Similarly, before bringing a judicial action under Section 1431, Regions should ensure that sufficient information has been compiled and can be presented to a court to support the action. This information would take the form of technical documents (e.g., such as statements from a toxicologist), other background materials, such as records of correspondence indicating the State and local authorities are not acting sufficiently to protect public health or have requested that EPA act on their behalf, and memoranda to the file. Regions should refer to OECA’s May 16, 2013 “Guidance on Developing Administrative Records for Unilateral Administrative Enforcement Orders.” Additionally, EPA issued general guidance on administrative records (“EPA’s Action Development Process: Administrative Records Guidance,” September 2011).

Absolute Proof Not Required

Even though EPA should strive to create a record basis to support its Section 1431 actions, the Regions should recognize that EPA does not need uncontroverted proof that contaminants are present in or likely to enter the water supply or that an imminent and substantial endangerment may be present before acting under Section 1431. Similarly, EPA does not need uncontroverted proof that the recipient of the order is the person responsible for the contamination or threatened contamination. Courts generally will give deference to EPA’s technical findings of imminent and substantial endangerment. The purpose of Section 1431 actions is to prevent harm from occurring. Extensive efforts to document the available information should be avoided, where the delay in obtaining such information or proof could impair attempts to prevent or reduce the hazardous situation. The Region may use, for example, sampling data from public and/or private wells, the exceedance of the unreasonable risk to health level, data from toxicological studies, and/or the opinion of a

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50 See Steven A. Herman memorandum.
51 See U.S. v. Conservation Chemical Co., 619 F. Supp. at 193 (because of scientific and medical uncertainties, proof with certainty is impossible).
toxicologist or other expert as evidence that an “imminent and substantial endangerment” may exist.52

State and Local Authorities Have Not Acted

As stated previously, before taking an action under Section 1431, EPA must explain and document, as necessary, why the ordered action is needed even if state or local governments may have taken or are taking actions to protect public health. As highlighted above, EPA makes this determination in each specific case and, significantly, when assessing the actions of a State, tribal, territory or local authority, potential responses may vary based on particular factual circumstances. This is another important issue to discuss with OECA during the consultation process when contemplating a Section 1431 action in a particular matter. The Region should have a written basis for its finding that federal action is necessary notwithstanding action by a State, tribal, territorial or local authority; that state or local authorities requested assistance; or that EPA is working with the State or local authority. This may consist of a telephone log or written communications (e.g., emails or letters), that serves to document contact between EPA and State and local authorities.

Headquarters Contact

The Region must consult with OECA before issuing an administrative Section 1431 order or referring a Section 1431 matter to DOJ. OECA will coordinate with other Headquarters offices as appropriate (e.g., OW, OGC). OECA is committed to providing feedback to the Regions as soon as possible, which typically is within 24 to 48 hours, and has responded even earlier where the endangerment is acute. Consulting with OECA staff in advance may protect against subsequent adverse judicial determinations.

Regardless of whether the Region prepares an administrative order or requests that a court issue a judicial order, OECA requests that the Region submit copies of all final orders for its central files. The Region’s emergency action should also be reflected in the Agency’s Integrated Compliance Information System (ICIS). ICIS is the database of record for all federal enforcement actions.

No Citizen’s Suits To Compel EPA Action Under Section 1431

SDWA Section 1449 authorizes citizen’s suits against EPA when the Agency has failed to take actions that are mandatory under the statute. Because EPA’s authority to act under Section 1431 is discretionary, citizen’s suits to compel EPA to act under Section 1431 are not authorized.53

52 See Attachment 4.
SEC. 1431. (a) Actions authorized against imminent and substantial endangerment to health. Notwithstanding any other provision of this title, the Administrator, upon receipt of information that a contaminant which is present in or is likely to enter a public water system or an underground source of drinking water, or that there is a threatened or potential terrorist attack (or other intentional act designed to disrupt the provision of safe drinking water or to impact adversely the safety of drinking water supplied to communities and individuals), which may present an imminent and substantial endangerment to the health of persons, and that appropriate State and local authorities have not acted to protect the health of such persons, may take such actions as he may deem necessary in order to protect the health of such persons. To the extent he determines it to be practicable in light of such imminent endangerment, he shall consult with the State and local authorities in order to confirm the correctness of the information on which action proposed to be taken under this subsection is based and to ascertain the action which such authorities are or will be taking. The action which the Administrator may take may include (but shall not be limited to) (1) issuing such orders as may be necessary to protect the health of persons who are or may be users of such system (including travelers), including orders requiring the provision of alternative water supplies by persons who caused or contributed to the endangerment, and (2) commencing a civil action for appropriate relief, including a restraining order or permanent or temporary injunction.

(b) Penalties for violations; separate offenses. Any person who violates or fails or refuses to comply with any order issued by the Administrator under subsection (a)(1) may, in an action brought in the appropriate United States district court to enforce such order, be subject to a civil penalty of not to exceed $15,000 for each day in which such violation occurs or failure to comply continues.
Section 1431 reflects the Committee’s determination to confer completely adequate authority to deal promptly and effectively with emergency situations which jeopardize the health of persons.

The authority conferred by this section is intended to override any limitations upon the Administrator’s authority found elsewhere in the bill. Thus, the section authorizes the Administrator to issue such orders as may be necessary (including reporting, monitoring, entry and inspection orders) to protect the health of persons, as well as to commence civil actions for injunctive relief for the same purpose.

The authority to take emergency action is intended to be applicable not only to potential hazards presented by contaminants which are subject to primary drinking water regulations, but also to those presented by unregulated contaminants.

The authority conferred hereby is intended to be broad enough to permit the Administrator to issue orders to owners or operators of public water systems, to State or local governmental units, to State or local officials, owners or operators of underground injection wells, to area or point source polluters, and to any other person whose action or inaction requires prompt regulation to protect public health. Such orders may be issued and enforced notwithstanding the existence of any exemption, variance, permit, license, regulation, order, or other requirement. Such orders may be issued to obtain relevant information about impending or actual emergencies, to require the issuance of notice so as to alert the public to a hazard, to prevent a hazardous condition from materializing, to treat or reduce hazardous situations once they have arisen, or to provide alternative safe water supply sources in the event any drinking water source which is relied upon becomes hazardous or unusable.

Willful violation of the Administrator’s order is made punishable by a fine of up to $5,000 per day of violation.

In using the words “that appropriate State or local authorities have not acted to protect the health of persons,” the Committee intends to direct the Administrator to refrain from precipitous preemption of effective State and local emergency abatement efforts. However, if State or local efforts are not forthcoming in timely fashion or are not effective to prevent or treat the hazardous condition, this provision should not bar prompt enforcement by the Administrator.

In using the words “imminent and substantial endangerment to the health of persons,” the Committee intends that this broad administrative authority not be used when the system of regulatory authority provided elsewhere in the bill could be used adequately to protect the public health. Nor is the emergency authority to be used in cases when the risk of harm is remote in time, completely speculative in nature, or de minimis in degree. However, as in the case of U.S. v. United States Steel, Civ. Act. No. 71-1041 (N.D. Ala. 1971), under the Clean Air Act, the Committee intends that this language be
construed by the court and the Administrator so as to give paramount importance to the objective of protection of the public health. Administrative and judicial implementation of this authority must occur early enough to prevent the potential hazard from materializing. This means that “imminence” must be considered in light of the time it may take to prepare administrative orders or moving papers, to commence and complete litigation, and to permit issuance, notification, implementation, and enforcement of administrative or court orders to protect the public health.

Furthermore, while the risk of harm must be “imminent” for the Administrator to act, the harm itself need not be. Thus, for example, the Administrator may invoke this section when there is an imminent likelihood of the introduction into the drinking water of contaminants that may cause health damage after a period of latency.

Among those situations in which the endangerment may be regarded as “substantial” are the following: (1) a substantial likelihood that contaminants capable of causing adverse health effects will be ingested by consumers if preventive action is not taken; (2) a substantial statistical probability that disease will result from the presence of contaminants in drinking water; or (3) the threat of substantial or serious harm (such as exposure to carcinogenic agents or other hazardous contaminants).
ATTACHMENT 3

Office of Inspector General, Management Alert, Report No. 17-P-0004, “Drinking Water Contamination in Flint, Michigan, Demonstrates a Need to Clarify EPA Authority to Issue Emergency Orders to Protect the Public” (October 20, 2016).
Management Alert: Drinking Water Contamination in Flint, Michigan, Demonstrates a Need to Clarify EPA Authority to Issue Emergency Orders to Protect the Public

Project No. 17-P-0004

October 20, 2016
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Abbreviations
EPA U.S. Environmental Protection Agency
MDEQ Michigan Department of Environmental Quality
OECA Office of Enforcement and Compliance Assurance
OIG Office of Inspector General
SDWA Safe Drinking Water Act

Cover photo: Flint Water Plant, Flint, Michigan. (EPA OIG photo)

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Why We Did This Review

The U.S. Environmental Protection Agency (EPA) Office of Inspector General (OIG) is reviewing the circumstances of, and the EPA’s response to, the contamination in the city of Flint, Michigan’s, community water system, including the EPA’s exercise of its oversight authority. We are issuing this report to alert the EPA about factors that delayed its intervention using emergency authority under Section 1431 of the Safe Drinking Water Act (SDWA). When our review is completed, we plan to issue a subsequent report.

After Flint switched its drinking water supply in April 2014, inadequate treatment exposed many of the residents to lead. Emergency authority was available to EPA to take actions to protect the public from contamination.

This report addresses the following EPA goals or cross-agency strategies:

- Protecting America’s waters.
- Protecting human health and the environment by enforcing laws and assuring compliance.
- Working to make a visible difference in communities.

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Listing of OIG reports.

Management Alert: Drinking Water Contamination in Flint, Michigan, Demonstrates a Need to Clarify EPA Authority to Issue Emergency Orders to Protect the Public

What We Found

EPA Region 5 had the authority and sufficient information to issue a SDWA Section 1431 emergency order to protect Flint residents from lead-contaminated water as early as June 2015. Region 5 had information that systems designed to protect Flint drinking water from lead contamination were not in place, residents had reported multiple abnormalities in the water, and test results from some homes showed lead levels above the federal action level.

EPA Region 5 did not issue an emergency order because the region concluded the state’s actions were a jurisdictional bar preventing the EPA from issuing a SDWA Section 1431 emergency order. However, the EPA’s 1991 guidance on SDWA Section 1431 orders states that if state actions are deemed insufficient, the EPA can and should proceed with a SDWA Section 1431 order, and the EPA may use its emergency authority if state action is not protecting the public in a timely manner. However, EPA Region 5 did not intervene under SDWA Section 1431, the conditions in Flint persisted, and the state continued to delay taking action to require corrosion control or provide alternative drinking water supplies.

In September 2015, EPA Region 5 first briefed the EPA headquarters’ Office of Enforcement and Compliance Assurance (OECA) about Flint’s water crisis. OECA recommended the region take SDWA Section 1431 action. During the fall, the state began to take actions to correct the problems in Flint. EPA Region 5 maintained that the state was acting, but the contamination continued. The EPA Administrator subsequently directed OECA to issue an emergency order on January 21, 2016. The emergency order stated the EPA had determined that Flint’s and Michigan’s responses to the drinking water crisis were inadequate, and the EPA ordered specific actions to address a public health threat.

These situations should generate a greater sense of urgency. We are issuing a management alert report on this matter to promote awareness and facilitate immediate EPA action. The OIG’s evaluation of the Flint drinking water crisis is ongoing, and we expect to issue an additional report when our work concludes.

Recommendations

We recommend that OECA update the EPA’s 1991 guidance on SDWA Section 1431 emergency authority. We also recommend that OECA require all relevant EPA drinking water and water enforcement program management and staff to attend training on SDWA Section 1431 authority.
October 20, 2016

MEMORANDUM

SUBJECT: Management Alert: Drinking Water Contamination in Flint, Michigan, Demonstrates a Need to Clarify EPA Authority to Issue Emergency Orders to Protect the Public
Report No. 17-P-0004


TO: Cynthia Giles, Assistant Administrator
Office of Enforcement and Compliance Assurance

During our evaluation to examine the circumstances of contamination in the city of Flint, Michigan’s, community water system, including the U.S. Environmental Protection Agency’s (EPA’s) response to the situation, we became aware of significant factors that delayed EPA intervention in Flint using its emergency authority granted under the Safe Drinking Water Act. We identified the need for the EPA to update and clarify how and when it should act in response to drinking water contamination. As a result, we are providing you with this management alert. We plan to issue a subsequent report when our evaluation concludes.

This report represents the opinion of the Office of Inspector General (OIG) and does not necessarily represent the final EPA position. Final determinations on matters in this report will be made by EPA managers in accordance with established audit resolution procedures. Accordingly, the findings described in the report are not binding upon the EPA in any enforcement proceeding brought by the EPA or the U.S. Department of Justice.

Action Required

Prior to issuing this report, we met with agency officials to discuss our report, and the officials agreed with our recommendations, with revisions. Please provide a formal written response to this report within 30 calendar days that includes planned corrective actions and projected completion dates for the recommendations. Your response will be posted on the OIG’s public website, along with our memorandum commenting on your response. Your response should be provided as an Adobe PDF file that complies with the accessibility requirements of Section 508 of the Rehabilitation Act of 1973, as amended. The final response should not contain data that you do not want to be released to the public; if your response contains such data, you should identify the data for redaction or removal along with corresponding justification.

This report will be available at www.epa.gov/oig.
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Purpose

The U.S. Environmental Protection Agency’s (EPA’s) Office of Inspector General (OIG) has an ongoing review to examine the circumstances of, and the EPA’s response to, the contamination in the city of Flint, Michigan’s, community water system, including the EPA’s exercise of its oversight authority. The purpose of our issuing this initial report is to alert the EPA of key factors that delayed its intervention in Flint using its emergency authority granted under the Safe Drinking Water Act (SDWA), and to recommend that the EPA update and clarify how and when it should intervene. When our review is complete, we plan to issue a subsequent report.

Background

Inadequate drinking water treatment exposed many of the nearly 100,000 residents who were customers of the city of Flint community water system to lead. Flint switched from purchasing treated water from Detroit Water and Sewerage to sourcing and treating its water supply from the Flint River in April 2014. Treated water from Detroit Water and Sewerage included a corrosion-inhibiting additive, which lined pipes and connections to minimize the level of lead leaching into drinking water. Flint’s treatment of the new drinking water source did not include a process for reducing the corrosion of lead-containing pipes and connections, which allowed lead to begin leaching into drinking water.

After the source switch, residents began reporting to the EPA that there were color and odor problems with the water. In February 2015, the public health risk escalated as indications of lead were identified in the drinking water supply. In April 2015, the EPA discovered that the necessary corrosion control had not been added in the community water system since the source switch. In August and September 2015, private researchers identified numerous homes with lead contamination, and also identified an increase in the blood lead levels of children living in Flint.

Potential Health Effects From Lead in Drinking Water

High levels of lead may cause liver or kidney damage. Long-term lead exposure in adults can lead to nervous system problems and reproductive, brain and kidney damage, and can ultimately cause death. Children under the age of 6 are especially vulnerable to lead poisoning, which can severely affect mental and physical development.
In October 2015, Flint switched back to purchasing treated water from Detroit Water and Sewerage. In January 2016, the EPA Administrator directed the headquarters’ Office of Enforcement and Compliance Assurance (OECA) to issue an emergency administrative order under Section 1431 of the SDWA. This order required the city to, among other things: continue to add corrosion inhibitors; demonstrate it has the technical, managerial and financial capacity to operate the system presently and before it switches to a new water source; and sample water quality and make data publicly available.

On the day the EPA issued the emergency order, the EPA Administrator established the agency’s Policy on Elevation of Critical Public Health Issues. This policy, which supports the EPA’s mission to protect human health and the environment, calls for EPA leaders to encourage staff to elevate issues that have the following characteristics:

- “There appears to be a substantial threat to public health;
- “EPA is or can reasonably be expected to be a focus of the need for action; and/or
- “Other authorities appear to be unable to address or are unsuccessful in effectively addressing such a threat;
- “Recourse to normal enforcement and compliance tools is not appropriate or unlikely to succeed in the near term;
- “High and sustained public attention is possible.”

After the emergency order was issued, OECA provided SDWA enforcement training to some headquarters and regional managers and staff. In addition, the EPA Region 5 acting Regional Administrator stated he is taking steps to implement the Administrator’s new policy.

What SDWA and EPA Guidance Provides

Congress enacted the SDWA in 1974 to protect the quality of drinking water in the United States. Public water systems are required to comply with SDWA. States, territories and tribes (collectively referred to as “states” herein) have primary implementation and enforcement authority. The EPA retains national oversight responsibility for state administration and enforcement of SDWA.

Section 1431 provides the EPA with emergency authority to address imminent and substantial endangerment to human health from drinking water contamination. The EPA can use this discretionary authority whenever:

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1 Nearly all states, including Michigan, have primacy to implement the SDWA. Primacy is granted to states that adopt regulations at least as stringent as national requirements, develop adequate procedures for enforcement (including conducting monitoring and inspections), adopt authority for administrative penalties, and maintain records and make reports as the EPA may require.
(1) contamination is in or likely to enter a drinking water source which may present an imminent and substantial endangerment to the health of persons; and

(2) the appropriate state and local authorities have not acted to protect human health.

The EPA’s authorized actions include issuing administrative orders requiring specific actions that are necessary to protect human health or commencing a civil judicial action.

In 1994, the EPA Administrator delegated the authority to issue administrative emergency orders under Section 1431 to EPA Regional Administrators and, in multi-regional cases or cases of national significance, to the Assistant Administrator for OECA. The authority to make a Section 1431 judicial referral remains with headquarters.

The EPA’s Final Guidance on Emergency Authority under Section 1431 of the Safe Drinking Water Act (1991) is designed, in part, to encourage more widespread use of the EPA’s Section 1431 authority by more fully explaining situations where this authority may be applied. This guidance clarifies that the EPA may use its emergency authority even when a state is acting or is going to act. Regarding whether the state action is in fact protecting the public from the contaminants in a timely fashion:

If EPA has information that State/local agencies are going to act, EPA must decide whether the action is timely and protective of public health. If EPA determines that the action is insufficient and State and local agencies do not plan to take stronger or additional actions to ensure public health protection, in a timely way, EPA should proceed with an action under Section 1431.

Scope and Methodology

We began our evaluation in February 2016, and our work is ongoing. We are conducting this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform our work to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. Our ongoing work may provide supplemental findings to this report. We believe that the evidence obtained provides a reasonable basis for the findings and conclusions in this report based on our audit objectives.

We reviewed the laws, regulations, policies, procedures and guidance related to the SDWA program. At EPA headquarters, we interviewed the EPA Administrator, and staff and officials from the Office of General Counsel, Office
of Water and OECA. We also interviewed staff and officials in EPA Region 5, including the former EPA Region 5 Regional Administrator and the Region 5 acting Regional Administrator. Further, we interviewed staff from the Michigan Department of Environmental Quality (MDEQ), former and current employees of the city of Flint, and Flint residents. In addition, we reviewed criteria documents provided to us by the EPA and MDEQ.

Results of Review

Based on information we obtained, EPA Region 5 had the information it needed about the drinking water issues in Flint in June 2015 to exercise its discretionary authority to issue an emergency order under SDWA Section 1431. The information EPA Region 5 had in June 2015 met the two requirements necessary for an emergency order under SDWA Section 1431, as shown in Table 1:

Table 1: SDWA Section 1431 Emergency Order Requirements and EPA’s Information about Flint Events in June 2015

<table>
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<th>Emergency order requirement</th>
<th>EPA’s information about Flint events by June 2015</th>
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| 1. The contamination may present imminent and substantial endangerment to human health.    | • EPA Region 5 received the first Flint drinking water distribution system lead sampling test result, indicating a requirement for corrosion control (February 2015).  
   • State informed EPA Region 5 that no corrosion control was in place (April 2015).  
   • EPA Region 5 had information that at least four homes had lead in drinking water in concentrations above the action level (June 2015). |
| 2. Appropriate state and local authorities have not acted to protect the health of persons. | • State informed EPA that no corrosion control was in place (April 2015).  
   • State and city had not disclosed risk of potential lead exposure to the public. |

Source: SDWA Section 1431 and OIG analysis of EPA Region 5 documents.

2 Under SDWA, the Lead and Copper Rule requires optimized corrosion control for systems servicing populations over 50,000. The rule also deems a drinking water system to have optimized corrosion control when lead sampling results fall at 5 parts per billion or less at test sites throughout the system. The city’s lead sampling results were 6 parts per billion.

3 The Lead and Copper Rule requires that drinking water utilities take action when lead exceeds 15 parts per billion in a sample of homes. An action level exceedance is not a violation, but it triggers other required actions to minimize exposure to lead and copper in drinking water. Those other actions include water quality parameter monitoring, corrosion control treatment, source water monitoring/treatment, public education, and lead service line replacement.
EPA Region 5 Had Sufficient Information and the Authority to Issue an Emergency Order in June 2015, but Did Not

By June 2015, EPA Region 5 had information that the city of Flint exceeded the lead level at which corrosion control is required, and that Flint was not using a corrosion inhibitor. EPA Region 5 also had information that at least four homes had concentrations of lead in household drinking water above the action level of 15 parts per billion. These factors and others indicated that some residents were being exposed to lead-contaminated water, and that exposure to lead-contaminated drinking water was likely to increase as corrosion continued within the distribution system.

Additional information from the public provided further evidence of Flint drinking water abnormalities. Between April 2014 (month of the water source switch) and June 2015, EPA Region 5 received many documented complaints from Flint residents.4

By June 2015, EPA Region 5 also knew that the state and local authorities were not acting quickly to protect human health. In February 2015, the state initially told the EPA that Flint had an optimized corrosion control program in place. Subsequently, in April 2015, the state admitted that Flint was not using corrosion control, but the state also said none was required. Neither state nor local authorities disclosed the risks of potential lead contamination to residents.

EPA Region 5 began discussing the issue with the state and offered the state technical assistance in February 2015. However, instead of acting immediately to protect human health, the state delayed action by awaiting the results of the second round of lead sampling (not anticipated until August 2015). The state argued Flint had as many as 5 years from the date of the source switch to optimize corrosion control. The city of Flint also did not take action.

On June 24, 2015, an EPA Region 5 regulations manager produced an interim report about lead contamination identified in Flint homes and described major public health concerns in the city of Flint. However, on July 9, 2015, the then Flint mayor held a press conference assuring Flint residents that the water was safe to drink. Despite these conditions, the region did not issue an emergency order because the region concluded the state’s ongoing activities were a jurisdictional bar preventing the EPA from issuing a SDWA Section 1431 emergency order.

The EPA’s 1991 guidance on taking emergency action under Section 1431 describes how and when the EPA can use its emergency authority even if a state or local agency acts:

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4 These complaints were submitted to EPA Region 5 directly or forwarded to Region 5 from the EPA OIG or the White House.
The Regions should not view this standard - whether a State or local authority has acted to protect the health of persons - as an issue of whether these authorities have “failed” to protect public health. Instead, these authorities intentionally may defer action to EPA because the Section 1431 authority may be more powerful or expeditious…. Further, State or local authorities may decide to take action jointly with EPA. In such cases, EPA would determine that State and local authorities have not acted (on their own) to protect the health of persons. Therefore, EPA may proceed with Section 1431 actions when State and local authorities are working jointly with EPA.

Our analysis of the publicly available data on SDWA Section 1431 actions taken by EPA regions prior to the Flint incident shows that it is rare for a region to issue an emergency order to a municipality in a state with primacy. OIG analysis showed that the vast majority of the SDWA Section 1431 emergency orders taken by EPA occurred in Wyoming and in Indian country, where the EPA regions directly implement SDWA and there is no “state” entity to consider. Based on the publicly available data, the majority of Section 1431 emergency orders issued by the EPA were to businesses and federal facilities.5

Emergency action by EPA Region 5 could have required the city and state to provide alternative water supplies to affected residents, study the extent and severity of lead contamination within the water system, or immediately begin corrective actions to reduce and eliminate lead contamination in the drinking water system. However, EPA Region 5 did not intervene under SDWA Section 1431 to require immediate actions to protect human health, and the conditions in Flint continued.

In the absence of EPA intervention in Flint, the state continued to delay taking action to require corrosion control or provide alternative drinking water supplies. Additional data in August and September 2015 demonstrated lead contamination was widespread, and also demonstrated an increase in the blood lead levels of children living in Flint. It was not until December 2015 that Flint began adding a corrosion inhibitor to optimize corrosion control in the water system.

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5 OIG analyzed information from the EPA’s public Enforcement and Compliance History Online database. The EPA informed the OIG that this public database does not reflect all EPA Section 1431 actions taken.
Region 5 did not formally brief OECA about Flint’s water issues until September, 2015. Staff and managers in OECA viewed the Flint situation as one in which it was appropriate for the region to take Section 1431 action, and recommended that the region take such action. However, Region 5 declined to take emergency action, on the basis that the ongoing state actions constituted a jurisdictional bar.

Table 2 provides examples of federal, state and local events occurring in Flint during the fall and early winter.

Table 2: Examples of Federal, State and Local Actions in Flint — September 2015 through January 2016

<table>
<thead>
<tr>
<th>Month</th>
<th>Event</th>
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| September| • External researchers inform the EPA about broader scope of lead contamination and elevated blood lead levels in Flint children.  
           • Flint mayor announces that corrosion control will be initiated; invites EPA experts to Flint.  
           • City of Flint and Genesee County issue formal health advisory. |
| October  | • Region 5 establishes Flint task force to provide technical expertise.  
           • Michigan develops a 10-point action plan.  
           • Flint returns to purchasing treated water from Detroit Water and Sewerage. |
| November | • EPA Office of Water issues memo verifying that the Lead and Copper Rule requires that large drinking water systems, such as Flint, have optimized corrosion control technologies in place.  
           • Region 5 Flint task force concludes that contamination in Flint is still not controlled, because the city did not comply with a request for information that would give this assurance. |
| December | • Flint begins to implement supplemental corrosion control.  
           • Flint mayor declares state of emergency. |
| January  | • Michigan governor declares state of emergency.  
           • President declares federal state of emergency for Flint.  
           • EPA issues emergency order to MDEQ and Flint. |

Source: OIG

According to OECA staff and management, as these events unfolded, OECA continued to discuss a Section 1431 action with EPA Region 5 leadership, stressing that this would formalize the state’s planned actions. This would also have federalized the response. However, OECA and the EPA Administrator’s office did not initiate SDWA 1431 action from the EPA headquarters level, and continued to rely on EPA Region 5’s determination that the state was acting. However, the contamination continued.

The Administrator, in delegating to OECA the authority for SDWA Section 1431 emergency action, limited OECA to taking these actions in “multi-regional cases or cases of national significance.” However, the Administrator retains the authority to act in all cases. Only in January 2016 did it become clear to OECA that even though the contamination continued to be unresolved by months of ongoing activity, the EPA Region 5 Regional Administrator did not adequately recognize the available authority under Section 1431 to take an emergency action.
The EPA Administrator directed OECA to issue an emergency order to the state of Michigan, MDEQ and the city of Flint on January 21, 2016.

While the 1991 guidance provides that the EPA may proceed if state actions do not serve to protect public health, the guidance does not provide examples of state actions that would and would not be deemed timely and protective. The guidance also does not provide a checklist or other tools for determining when the Regional Administrators and OECA Assistant Administrator should consider emergency action under SDWA Section 1431.

We are issuing a management alert report on this matter to promote awareness and facilitate EPA action to clarify and update its guidance and scenarios under which a SDWA Section 1431 emergency order should be considered. The OIG’s evaluation of the Flint drinking water crisis is ongoing, and we expect to issue an additional report when our work concludes.

Conclusion

EPA Region 5 had sufficient information to issue an emergency order to Flint as early as June 2015, but did not. Issuing an emergency order to a state or local entity is a rare occurrence at the EPA. The former EPA Region 5 Regional Administrator believed that the state of Michigan’s actions to address the Flint situation barred formal federal action. While events were complicated, given what we know about the consequences of the Flint drinking water contamination, it is clear that EPA intervention was delayed. These situations should generate a greater sense of urgency. The EPA must be better prepared and able to timely intercede in public health emergencies like that which occurred in Flint.

To that end, the EPA has since taken some responsive steps by issuing the policy on elevation of critical public health issues and conducting SDWA enforcement trainings. However, the EPA can do more to emphasize that SDWA Section 1431 is a tool that should be used in cases where responding with urgency will protect human health. This management alert identifies initial actions we believe the EPA must take to clarify regions’ authorities to use this tool, and to clarify OECA’s role in recommending and taking emergency action to immediately address urgent drinking water issues.

Specifically, the EPA should update its 1991 SDWA Section 1431 guidance to include relevant examples of how and when Section 1431 orders have been issued, and examples of timely and protective state action. The updated guidance should include the current delegation of authority for issuing Section 1431 orders, and should establish a guide to give employees direction about when Section 1431 emergency action could be taken. Further, the EPA should require all relevant EPA drinking water and water enforcement management and staff to attend training on the use of the authorities provided in SDWA Section 1431. As the...
OIG completes its work, it will examine the management and program controls in place at the EPA and make further recommendations as warranted.

**Recommendations**

We recommend that the Assistant Administrator for Enforcement and Compliance Assurance:

1. Update the EPA’s *Final Guidance on Emergency Authority under Section 1431 of the Safe Drinking Water Act (1991)* to:
   
   a. Include the most relevant examples of Safe Drinking Water Act Section 1431 orders nationwide and examples of state actions that would be considered timely and protective.
   
   b. Reflect the current delegations of authority to both the Regional Administrators and the Assistant Administrator for Enforcement and Compliance Assurance.
   
   c. Establish checklists for when both the Regional Administrators and the Assistant Administrator for Enforcement and Compliance Assurance should consider emergency action under the Safe Drinking Water Act Section 1431.
   
2. Train, in cooperation with the Assistant Administrator for Water, all relevant EPA drinking water and water enforcement program management and staff on the Safe Drinking Water Act Section 1431 authority and updated guidance.
### Status of Recommendations and Potential Monetary Benefits

#### RECOMMENDATIONS

<table>
<thead>
<tr>
<th>Rec. No.</th>
<th>Page No.</th>
<th>Status¹</th>
<th>Subject</th>
<th>Action Official</th>
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<tr>
<td>1</td>
<td>9</td>
<td>O</td>
<td>Update the EPA’s <em>Final Guidance on Emergency Authority under Section 1431 of the Safe Drinking Water Act (1991)</em> to:</td>
<td>Assistant Administrator for Enforcement and Compliance Assurance</td>
</tr>
<tr>
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</table>

¹ O = Recommendation is open with agreed-to corrective actions pending.
   C = Recommendation is closed with all agreed-to actions completed.
   U = Recommendation is unresolved with resolution efforts in progress.
Appendix A

Distribution

Office of the Administrator
Assistant Administrator for Enforcement and Compliance Assurance
Regional Administrator, Region 5
Agency Follow-Up Official (the CFO)
Agency Follow-Up Coordinator
General Counsel
Associate Administrator for Congressional and Intergovernmental Relations
Associate Administrator for Public Affairs
Principal Deputy Assistant Administrator, Office of Enforcement and Compliance Assurance
Deputy Assistant Administrator, Office of Enforcement and Compliance Assurance
Deputy Regional Administrator, Region 5
Audit Follow-Up Coordinator, Office of Enforcement and Compliance Assurance
Audit Follow-Up Coordinator, Region 5
ATTACHMENT 4

Examples of Information to Support a SDWA Section 1431 Action

The following is a nonexhaustive list of the types of information that could be included or considered as part of an administrative record when issuing a SDWA Section 1431 order. Note that not all the following information needs to be obtained, especially if some of the information is not available or time consuming or expensive to attain. As noted in the guidance document, extensive efforts to document the available information should be avoided where the delay in obtaining such information or proof could impair attempts to prevent or reduce the hazardous situation. Additionally, as stressed above, SDWA Section 1431 applies to regulated and unregulated contaminants, and thus any information related to unregulated contaminants can and should be considered.

For example, the following circumstances, accompanied by appropriate supporting information, may lead EPA to consider utilizing Section 1431 authority:

- **Data generated by:**
  - EPA or other federal agencies
  - State, tribal or territorial agency
  - Local authorities
  - Independent organizations (e.g., universities or local citizen groups)
  - Potentially responsible parties

- **Contamination:**
  - Was there a recent or historic release, spill, discharge, or emission?
  - What contaminants are being detected? Is there more than one contaminant of concern?
  - What media (e.g., surface water, ground water, soil, air) has been impacted?
  - When did the release, spill, discharge, or emission occur?
  - What are the current levels and concentrations?
  - What is the toxicity?
  - What is the mobility of the contaminant(s)?
  - What are the techniques for mitigation (e.g., bottled water, point of use/point of entry treatment)?

- **Exposure information:**
  - What are the exposure pathways (e.g., ingestion, inhalation, dermal risks)?
  - Have persons using (or that may use) the water been alerted not to consume it? Have any other precautions or warnings been issued?
  - Are sensitive populations consuming the water? For example: pregnant women and women of childbearing age; children, including those fed mixed (powdered) formula; or individuals with compromised immune systems?
  - What is the amount of time the population may have been exposed?
  - Is the water coming from a PWS or private wells?
What are potential future exposures?
What is the proximity of release to exposure points?
Fate/transport modeling to exposure points? Hydrology?

- **Health information from:**
  - CDC and other federal agencies (e.g., studies and reports, email and/or phone communications)
  - State, tribal, territorial and local health or environmental agencies (e.g., hospital reports of illnesses/symptoms, blood levels)
  - Residents or other members of the public
  - Peer reviewed journals and other credible sources

- **Citizen complaints or petitions received by:**
  - EPA
  - State, tribal or territorial agencies
  - Local authorities
  - PWSs
  - Congress

- **Additional possible considerations:**
  - History of water supply and treatment processes
  - Data that results from the water supply and treatment process decisions
  - EPA, State, tribal or territorial enforcement actions