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WATER MANAGEMENT DIVISION

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OFFICE OF WATER

MEMORANDUM

SUBJECT: Identifying and Prioritizing Enforcement Cases at Class V Wells and Available Enforcement Options - Underground Injection Control Program Guidance #62

FROM: Michael B. Cook, Director
Office of Drinking Water

TO: Water Management Division Directors
Regions I - X

BACKGROUND AND PURPOSE

Regional Underground Injection Control Section Chiefs, Drinking Water Branch Chiefs and Regional Counsels have requested that this office develop guidance to assist them in taking enforcement actions against Class V well owners or operators. The purpose of this guidance is to offer a prioritizing scheme for enforcement actions against Class V wells that may adversely affect or imminently and substantially endanger human health[1]. The guidance also addresses enforcement options that are available based on the severity of the actual or potential contamination of USDWs from injection by a Class V well.

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[1] 42 USC §1421 reads "Regulations...shall contain minimum requirements for effective programs to prevent underground injection which endangers drinking water sources within the meaning of (d)(2)." Section 1421 (d)(2) reads "Underground injection endangers drinking water sources if such injection may result in the presence in underground water which supplies or can reasonably be expected to supply any public water system of any contaminant, and if the presence of such contaminant may result in such system's not complying with any national primary drinking water regulation or may otherwise adversely affect the health of persons."

42 USC §1431 reads "(a) Not withstanding any other provision of this title, the Administrator, upon receipt of information that a contaminant which is present in or is likely to enter an USDW 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...."

This guidance is provided for use by Regions directly implementing UIC programs to assist them in identifying and prioritizing Class V wells for enforcement under the two statutory provisions: §1423 of the SDWA based on adverse effect to human health under 144.12(a)[2] and §1431 of the SDWA based on imminent and substantial endangerment to human health. This guidance is not intended to limit the scope of what may be considered a violation of one or both standards. Rather it is intended to illustrate what should be considered a clear cut violation of one or both of these standards and first candidates for enforcement.

This guidance should not be construed to mean that any cases that do not fit the criteria described below do not constitute violations which are grounds for enforcement. Also, it should not be construed to require Regions to afford less attention to equivalent or higher priority enforcement actions at Class I-IV wells. This guidance only provides guidelines to help Regions prioritize their enforcement-related activities regarding Class V wells.

Finally, this guidance should not be construed as setting a ground-water protection standard or defining action levels for contaminated ground-water. It focuses on the well itself and the quality of the injectate and can be used in the absence of information on level of contaminants in ground-water.

GUIDANCE

A. <u>Identification of Class V Wells for prioritizing for purpose of enforcement under §1423 and/or §1431 of the SDWA</u>.

The following list of well types should be the primary focus of investigations to determine violation of §144.12(a) and/or actionable endangerment under §1431 of the SDWA and 144.12(e)[3]

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[2] 40 CFR §144.12(a) reads "No owner or operator shall construct, operate, maintain, convert, plug, abandon or conduct any other injection activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR Part 142 or may otherwise adversely affect the health of persons. The applicant for a permit shall have the burden of showing that the requirements of this paragraph are met."

[3] 40 CFR §144.12(e) reads "Notwithstanding any other provision of this section, the Director may take emergency action upon receipt of information that a contaminant which is present in or likely to enter a public water system or underground sources of drinking water may present an imminent and substantial endangerment to the health of persons. If the Director is an EPA official, he must first determine that the appropriate State and local authorities have not taken action to protect the health of such persons, before taking emergency action."

1. Industrial drainage wells used for the subsurface emplacement of run-off fluids including but not limited to storm-water run-off, spills and commercial leaks and located within the property boundary of the industrial or commercial facility.

2. Industrial waste disposal wells used to inject spent process water and waste fluids from industrial or commercial activities.

3. Motor vehicle facility disposal wells used to inject wastes and other fluids from, but not limited to, repair and service bays, floor drains, catch basins, pits, sumps, and wash basins by motor vehicle dealerships, service, and repair facilities.

4. Any Class V wells that the Region has identified as special problems for a State or the Region as a whole. For example, improperly used septic systems in Region I and sink holes in Region II.

B. Prioritizing Cases for Possible Enforcement: Screening Criteria (See Appendix A flowchart)

Each Region is requested to focus its time and available resources on selecting a number of high priority cases from those wells identified above. We realize the constraints on the Region and expect that only a small subset of identified Class V wells may be investigated. The Region should select wells which, based on general knowledge of conditions in a particular area and of the practices involved, are likely to meet the criteria listed below. For these wells, the Region should use the authority provided by section 144.27 to obtain the information necessary to build a legally defensible enforcement case.

The following steps should be taken in order to prioritize Class V wells:

1. Determine whether injection is taking place directly into or above a USDW.

First priority should be given to wells injecting directly into USDWs. In cases where injection is above a USDW, an effort should be made to determine hydrogeologic conditions at the site, particularly the thickness and nature of the unsaturated zone and the presence or absence of confining or impermeable strata between the bottom of the well and the USDW.

2. <u>Analyze the injectate to identify and quantify the contaminants of concern.</u>

The injectate should be analyzed for the presence of contaminants for which the Agency has established peer-reviewed health based limits. In selecting contaminants for analysis, consideration should be given to the contaminants most likely to be encountered based on the type of operation generating the injected fluids. Consideration should also be given to the weight of the evidence behind these health-based limits with preference given to those which have been promulgated in regulations. At the present time, health-based limits include:

(a) Maximum Contaminant Levels. See 40 CFR §141;

(b) Agency-approved Lifetime Health Advisories issued by the Health Effects Branch (HEB), ODW;

(c) Health-based limits based on Verified Reference Doses or Potency Factors verified by EPA's agency-wide Reference Dose and Carcinogenic Risk Assessment Verification Endeavor (CRAVE) Workgroup;

(d) Chemical specific, Agency-approved Advisory Guidance found in the Toxicological Profiles issued by EPA for the Agency for Toxic Substances and Disease Registry, Department of Health and Human Services.

Information concerning (b), (c) and (d) can be obtained by contacting HEB, ODW (FTS 382-7586). In addition, information on (b) and (c) is available in IRIS[4].

Where peer-reviewed standards are not available, valuable toxicity information may be obtained from the Office of Solid Waste where information is currently being compiled but not yet verified on many of the hazardous constituents contained in Appendix VIII of

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[4]Access IRIS (Integrated Risk Information System) through EPA's Electronic mailbox system. Call FTS 684-7254 if assistance is needed.

the RCRA regulations of Part 261[5]. Contact the Technical Assessment Branch, Office of Solid Wastes, FTS 382-4761.

For wells injecting directly into USDWs, the highest priority should be given to wells injecting contaminants at concentrations equal to or greater than 10 times any of the health-based limits.

For wells injecting above USDWs, but with no confining layer between the bottom of the well and the USDW, priority should be given to those wells injecting contaminants at concentrations equal to or greater than 20 times the Agency health-based limits.

This limit should be raised to 50 times the Agency health-based limits where the bottom of the well is separated from the USDW by a confining zone, or other mitigating factors exist, such as a very low water table and low rate of recharge.

The factors listed above should absolutely not be construed as an Agency policy on acceptable ground-water contamination levels or as minimum standards for violating §144.12(a) or for action under §1431 of the SDWA and §144.12(e). These factors have been chosen in the absence of a numeric standard which would constitute a violation or actionable situation at the well-head in much the same way that the Agency chose an attenuation factor of 100 in defining the characteristic of EP Toxicity for hazardous waste. As stated in the preamble to the May 19, 1980 promulgation of the Part 261 regulations: "EPA is adopting a 100-fold attenuation factor because it is confident that anything which fails the EP at this factor has the potential to present a substantial hazard regardless of the attenuation mechanisms at play." 45 FR 33111. Similarly, we believe that wells

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[5]If a contaminant is found to be "hazardous" under 40 CFR §261.3 of the RCRA regulations as defined in the UIC program §144.3, the well is classified as Class I or Class IV and this guidance is inapplicable. If the contaminant does not meet the strict definition of hazardous as defined under §261.3 or if it does, but is excluded under §261.3, these information sources may also assist Regions to quantify the contaminants of concern for purposes of this guidance.

injecting contaminants at concentrations listed above have a high potential to adversely affect human health. We have adopted more conservative factors for this guidance because the EP toxicity assumes that wastes are placed in engineered structures on the land rather than directly into USDWs or the unsaturated zone. However, just as the characteristic of EP toxicity does not define the ground water protection standard contained in the RCRA regulations at 264 Subpart F, the factors listed in this guidance do not define endangerment for purposes of violations of §144.12(a) or for purposes of action under §1431 of the SDWA and §144.12(e). In some cases, injection of contaminants at lower concentrations could also result in a violation of these standards. These factors are simply a means for prioritizing enforcement actions.

3. Determine the imminence of the threat to human health.

This determination should be based on:

-- presence or absence of drinking water wells down gradient from the Class V well and drawing water from the same aquifer;

-- distance between the Class V well and any water wells;

-- quantity of contaminants injected; and

-- environmental fate of the contaminants, particularly their behavior in water.

The attached flow chart illustrates what we would consider the most likely candidates for enforcement cases.

C. Available Enforcement Options

Four enforcement options are available to Regions once priority Class V wells are identified. Use of one option over another will be left to the discretion of each Region based on the severity of the problem, completeness of the record, willingness and ability of the owner or operator to cooperate and State assistance. These options are available whether or not there is actual contamination to a USDW as long as there is a prospect of one or more contaminants entering a USDW because the statutory definition of endangerment at 42 USC §1421(d) is "to be liberally construed so as to effect preventive and public health protective purposes of the [Act]." HR. 93-1185 p. 564, July 10, 1975.

Please note that in cases where the Region has investigated a Class V well, but has decided not to pursue a civil or administrative enforcement action at this time, the Region, where appropriate, should notify the owner or operator that he is operating a Class V well subject to the requirements of the SDWA, and that an enforcement action can and will be brought against him for any violation of the regulations. It is very important, particularly in cases where the Region has requested information under section 144.27, that the owner or operator not be given the impression that he is in compliance with the regulations or §1431 of the SDWA.

The options for enforcement are:

Option 1. Emergency Administrative Powers under the authority of 42 USC §1431 and 40 CFR §144.12(e) if potential or actual "imminent and substantial endangerment to the health of persons" from potential or actual contamination of a USDW "and appropriate State and local authorities have not acted to protect the health of such persons". This authority is broad. The advantage of this approach is that it provides EPA the most expedient relief especially when there is cooperation by the State and local authorities.[6] The Administrator may take such actions as he may deem necessary in order to protect human health that may be endangered. For example, he may issue an emergency order to an owner or operator to cease injection and provide alternative drinking water to users. The disadvantage of this approach is that while an emergency administrative order provides EPA the most expedient enforcement power, it may not include the up-front assessment of a civil penalty. Moreover, it only provides a maximum civil penalty of $5,000.00 for each day in which a violation of the order occurs or failure or refusal to comply continues.

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[6] A §1431 Administrative order becomes final once issued. The Administrator is not required to provide the violator an opportunity to be heard prior to issuance of the order. Yet a §1423 order does not become final until the alleged violator is provided an opportunity to be heard. Because of the differences in purpose and effect between orders under each of these statutory provisions, §1431 and §1423 of the SDWA, proposed and final orders under §1423 and orders under §1431 should not be combined into a single order, although EPA may, for example, issue separately a §1431 order and a §1423 proposed penalty order for the same violation.

Option 2. Civil Administrative Order (A.O.) under the authority of 42 USC §1423(c) for violation of 40 CFR §144.12(a). This authority is available in instances where violations and issues are fairly well defined and documented and the imminence of the violation is not of paramount concern such that an emergency action is required. This authority is not recommended for use in complex cases or cases involving penalties that may near or exceed $125,000.00, the statutory maximum, or in cases involving long compliance schedules. An advantage of using this authority over commencing a civil action under §1423(a) and (b) is that the Region can proceed more expeditiously through early enforcement activity than is generally possible with judicial referrals. Also, penalties up to $125,000.00 may be obtained, and the Regions are encouraged to seek penalties in all cases of highest priority. Some disadvantages are that higher penalties are available if a civil action is commenced. Also, civil enforcement may be more effective if the owner or operator is expected to resist all other enforcement efforts by the Region.

Option 3. Civil Judicial Referral under the authority of 42 USC §1423 (a) and (b) for violation of 40 CFR §144.12(a). This option is appropriate when the threat does not justify the use of §1431 and where, for example, the case is complex or involves a long compliance schedule or where penalties sought may near or exceed the $125,000, statutory maximum that is available administratively, or where court action, rather than administrative action is deemed to be necessary in order to attain compliance. While obtaining relief under this authority may take more time than it would take under §1423(c), EPA may obtain a court ordered temporary restraining order or such other prompt, interim relief as EPA requests and as the court deems necessary to prevent or stop the activity.

Option 4. Criminal Judicial Referral under the authority of 42 USC §1423 for violation of 40 CFR §144.12(a). This authority is available when the Region has reason to

believe that the owner or operator is wilfully violating §144.12(a). Such owner or operator may, in addition to or in lieu of a civil penalty of not more than $25,000 for each day of violation, be imprisoned for not more than 3 years, or fined in accordance with title 18 of the United States Code, or both under this authority.

D. Permitting

Apart from enforcement, the Region may choose to pursue permitting a rule-authorized Class V well. This approach is most useful to Regions that have identified wells of potential, but not current, concern that are best monitored through a permit rather than under authorization by rule. This includes wells identified under this guidance that are not of highest priority but are of potential concern to the Director. Under 40 CFR §§144.12(d) or 144.25(a)(3), the Director may require owners or operators to obtain a permit in which the Region can include requirements for corrective action, monitoring, reporting, and operation, including setting effluent limitations, as may be necessary to protect the USDW from injected contaminants that endanger human health. In the absence of regulatory standards, best professional judgment (BPJ) should be employed by Regions to develop permit limitations on injectate quality.

E. Significant Noncompliance Reporting Under 144.8

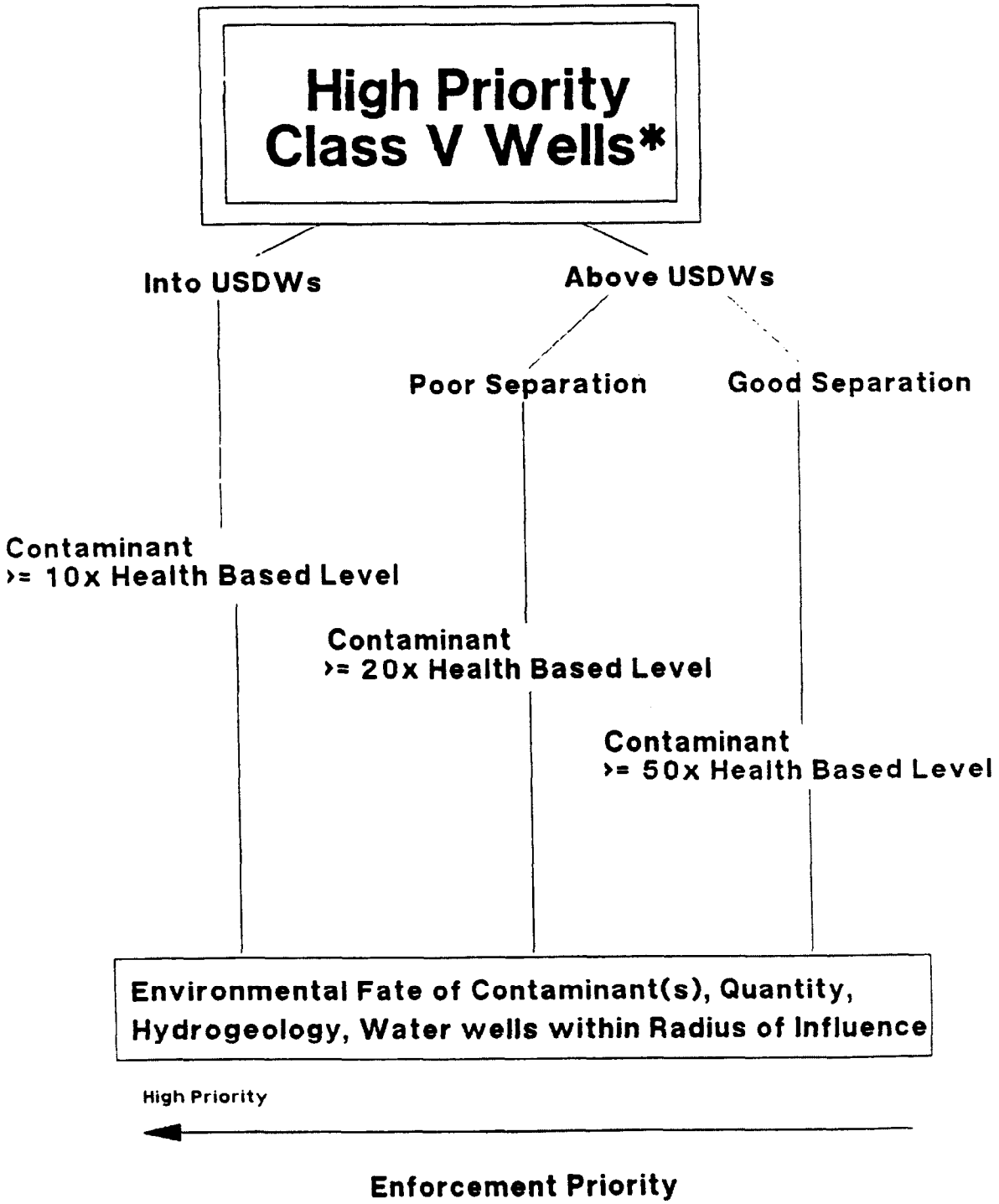
The Region is requested to report all cases identified as highest priority cases for enforcement using Options 1, 2, 3 or 4 on EPA forms 7520-2A and B, 7520-3 and 7520-4.

F. Guidance Implementation

The Regions should act on high priority Class V enforcement cases using standard operating procedures currently in place. These procedures include, for example, the administrative order (AO) procedures provided in the January 20, 1987 AO Issuance Guidance and the AO headquarters review procedures triggered for use by Regions preparing their first three UIC draft and final AO's. This guidance is not intended to provide for new or different operating procedures.

Because high priority Class V cases identified by Regions will involve issues of national significance or precedential value, the Regions are encouraged to consult with Headquarters on initial enforcement actions in this area, and as precedential issues arise thereafter.

Attachment



* This overall approach is intended to be useful to Regions in identifying high priority wells for enforcement under one of the options provided in this guidance. If the Region determines that it will not take anenforcement action under one of the options it should continue to oversee the well to assure continued compliance with all applicable program requirements.