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**VIA HAND DELIVERY AND CERTIFIED MAIL**

Information Quality Guidelines Staff
(Mail Code 2811R)
United States Environmental Protection Agency
1200 Pennsylvania Avenue N.W.
Washington, D.C. 20460

**Re: Information Quality Act Petition For Correction Regarding Underground Injection Rule, 70 Fed. Reg. 70513 (November 22, 2005)**

Dear Sir/Madam:

This is a Petition for Correction under the Information Quality Act (the "IQA"), Section 515 of Public Law 106-554, 44 U.S.C. § 3516, note, and the information quality guidelines issued by the Office of Management and Budget, 67 Fed. Reg. 8459-60 (Feb. 22, 2002) (the "OMB Guidelines").[1] Petitioners are the City of Sunrise, a Florida municipal corporation, and the East Central Regional Wastewater Treatment Facilities Operation Board, a Florida Interlocal Entity, through their counsel, Greenberg Traurig LLP, of Washington, D.C. Each will be adversely affected by, and has an interest in, the statements and information that are the subject of this Petition.

Petitioners seek correction of influential information disseminated by the Environmental Protection Agency ("EPA") in connection with the promulgation of final underground injection control program rule at 70 Fed. Reg. 70513 (the "Rule"), and disclosure of certain scientific information needed to determine whether all of the information disseminated in connection with the Rule meets IQA.

[1] EPA has issued its own set of IQA guidelines. *See* "Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by the Environmental Protection Agency," EPA/260R-02-008 (October, 2002)(the "EPA Guidelines"). However, the OMB Guidelines, and not the EPA Guidelines, are legally binding in this case. *See* 44 U.S.C. § 3516, note (Congress allowed agencies to create administrative review and correction mechanisms with OMB approval, but mandated agency compliance with quality standards contained in the OMB Guidelines).

## I. FACTUAL BACKGROUND.

For over twenty years, Florida municipalities in Brevard, Broward, Charlotte, Collier, Flagler, Glades, Hendry, Highlands, Hillsborough, Indian River, Lee, Manatee, Martin, Miami-Dade, Monroe, Okeechobee, Orange, Osceola, Palm Beach, Pinellas, St. Johns, St. Lucie, Sarasota, and Volusia counties, have used underground injection to safely and soundly dispose of treated municipal wastewater. 70 Fed. Reg. at 70516. Treated effluent[2] is injected between 650 - 3,500 feet below the ground surface, providing an environmentally beneficial alternative to the surface or ocean disposal of municipal wastewater. Municipal injection well facilities range in size from Gasparilla Island Water Utilities' one well disposing less than one million gallons per day, to Miami-Dade County's seventeen wells disposing approximately 110 million gallons per day. 70 Fed. Reg. at 70516.

The Rule regulates injection into the Floridan Aquifer System. Its uppermost geologic formations provide underground sources of drinking water (USDWs) for the Petitioners and others. Injection occurs into lower, geologically confined regions of that System. Critically, the subsurface geology is not uniform; the porosity and permeability variations of the carbonate rocks, and the existence of fractures within formations, results in confinement rate variations. According to EPA, "The porosity varies greatly, even within the same horizon or geological deposit of a particular time." 70 Fed. Reg. at 70516.

EPA asserts that the injection of treated effluent has resulted in "confirmed" or "suspected" upward fluid movement into an underwater source of drinking water ("USDW") at eight facilities, and that "there is evidence of movement outside the injection zone, though not into USDWs, at eight more." 70 Fed. Reg. at 70516. EPA has ruled fluid movement constitutes "endangerment" as defined in Section 1421(d)(2) of the Safe Drinking Water Act, 42 U.S.C. 300h(d)(2), and must be prohibited. However, EPA admits it lacks the data to determine whether, and to what extent, fluid movement actually may result in the presence of contaminants in USDWs that (a) may result in the municipal systems not complying with any national primary drinking water regulation, or (b) may otherwise adversely affect the health of persons. 70 Fed. Reg. at 70515. Furthermore, EPA states that it is unable to predict whether a fluid movement will occur in a given well.

The Rule provides that the owner or operator of an injection well that has or "may" demonstrate fluid movement must implement high level pre-injection treatment to kill all pathogenic microorganisms prior to injection. 70 Fed. Reg. at 70524. EPA did not cite any data suggesting the pathogenic microorganisms are present in treated, injected effluent that moves from the deep sub-surface into USDWs at levels that may result in the municipal systems violating a national primary drinking water regulation, or may otherwise adversely affect the health of persons using that water, to rationalize Rule promulgation. Instead, EPA justified the

[2] Effluent is treated to secondary wastewater treatment standards. See 40 CFR Part 133.

Rule on the alleged inadequacy of the data demonstrating injection was safe. See 70 Fed. Reg. at 70526. It stated:

> EPA acknowledges... that there will be some level of pathogen die-off in the deep subsurface, and that a shallow confining system may serve as a barrier to the movement of contamination in some locations. However, EPA believes that there is incomplete information about the movement and fate of pathogens in the subsurface. This lack of information prevents EPA from concluding that the pathogen die-off is sufficient to protect USDWs in the areas of Florida targeted by [the Rule].

70 Fed. Reg. at 70525.

As written, the Rule imposes high level pre-injection disinfection duties on owners and operators of any well that "has caused, or may cause movement of injection or formation fluids into a USDW..." 70 Fed. Reg. at 70532. No limits are placed on the Underground Injection Program Director's discretion to rule that a well "may" cause fluid movement. See 70 Fed. Reg. at 70532 (Director may decide using "any relevant data available" without any additional criteria for decision-making). Furthermore, EPA requires high level pre-injection disinfection for every new injection well, not just new wells at facilities for which there is data demonstrating that operation has caused or may cause fluid movement, without directly articulating a scientific or legal basis for this requirement.

## II. IQA REQUIREMENTS.

In December 2000, the Congress enacted IQA, requiring government information to meet quality standards, providing "affected persons" with the right to seek and obtain correction of disseminated information, and directing agencies to provide those persons with an administrative mechanism that could be used to obtain the requisite relief. IQA provides:

> (a) IN GENERAL – [OMB] shall...issue guidelines...that shall provide policy and procedural guidance to Federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by Federal agencies....
>
> (b) CONTENT OF GUIDELINES – The guidelines under subsection (a) shall - -
>
> (1) apply to the sharing by Federal agencies of, and access to, information disseminated by Federal agencies; and
>
> (2) require that each Federal agency to which the guidelines apply-
>
> (A) issue guidelines ensuring and maximizing the quality, objectivity, utility, and integrity of information (including statistical

information) disseminated by the agency, by not later than 1 year after the date of issuance of the guidelines under subsection (a);

(B) establish administrative *mechanisms allowing affected persons to seek and obtain correction of information* maintained and disseminated by the agency that does not comply with the guidelines issued under subsection (a) (emphasis added).

IQA was enacted to ensure government information is objective and supported by scientifically sound data, and that the public has meaningful access to the data and methodological information needed to test and reproduce the government's results. See 67 Fed. Reg. at 8455-57. It stands for the principle that the quality of government-disseminated scientific information is a direct function of the information's objectivity and reproducibility. 67 Fed. Reg. at 8459. The law recognizes that the public's capacity to test the objectivity and reproducibility of government information depends entirely upon the quality of an agency's scientific data and research methods disclosure. 67 Fed. Reg. at 8455-58. Therefore, IQA requires disclosure of the scientific information supporting the information disseminated in this case. Id. (agency must identify sources of disseminated information so public can assess for itself the objectivity of that information, and have access to full, accurate, transparent documentation and error sources affecting data quality). By mandating such disclosure, IQA encourages sound government decision-making, and promotes scientific discourse by deterring agencies from relying on flawed studies, drawing scientifically unwarranted conclusions, and disseminating inaccurate information.

An agency's data and methods must be sufficiently transparent that "an independent reanalysis could be undertaken by a qualified member of the public." Consequently, agencies must generally make available the "data and methods needed" to determine whether scientific results reported in government information are reproducible in any given case. This standard applies both to agency analysis of data from a single study, and to analyses that combine information from multiple studies. 67 Fed. Reg. at 8459-60. Additionally, agencies responsible for disseminating influential scientific, financial, or statistical information (such as the information at issue here) must provide a "high degree of transparency about data and methods to facilitate reproducibility of such information by qualified third parties." 67 Fed. Reg. at 8460.

EPA's analysis of the risk posed by fluid movement, its determinations that (a) fluid movement constitutes a Section 1421(d)(2) endangerment, and (b) all new injection facilities must implement high level pre-injection disinfection treatment, and its dissemination of the influential information in promulgating the Rule, were each subject to information quality requirements imposed by 42 U.S.C. 300g-1(b)(3)(A) and (B). Section 300g-1(b)(3)(A) mandated that EPA's analysis, determinations, and information dissemination be based on the best available peer reviewed studies, using data collected by accepted or the best available scientific methods. Section 300g-1(b)(3)(B) obligated EPA to prepare a document identifying

each population addressed by its estimate of public health effects, the expected risk or central estimate of risk for each specific population, each appropriate upper-bound or lower-bound estimate of risk, each significant uncertainty identified in the risk assessment, all known peer-reviewed studies that are either directly relevant to or fail to support EPA's estimate of health effects and the methodologies EPA employed to reconcile inconsistencies in the data. See 67 Fed. Reg. at 8460.

## III. PETITIONERS ARE AFFECTED PERSONS.

Petitioners will be directly and substantially harmed if the requested corrections and disclosure are not granted.

Sunrise is a Florida municipal corporation that owns and operates a regional water and wastewater utility system in Western Broward County. Sunrise currently provides potable water service and wastewater treatment and disposal service to an estimated population of 180,000 people. Sunrise's service area is approximately 90 square miles, encompassing the City of Sunrise, parts of the Town of Davie, the City of Weston, the Town of Southwest Ranches and areas of unincorporated Broward County. The City of Sunrise operates three (3) Class I municipal underground injection wells and one (1) Class I concentrate disposal well that provide final disposal of treated domestic wastewater and membrane filtration concentrate.

The East Central Regional Wastewater Treatment Facilities Operation Board ("ECR") is a Florida Interlocal Entity created pursuant to Section 163.01, et. seq., Fla. Stat. The ECR Board is comprised of the representatives of the entities served by the facility, namely: the City of West Palm Beach, the City of Lake Worth, the City of Riviera Beach, the Town of Palm Beach, and Palm Beach County. ECR operates six (6) Class I municipal underground injection wells.

The interests of Petitioners are affected persons in that the Rule would mandate capital expenditures and operational requirements to be employed by the Petitioners with the effect of negatively impacting the Petitioners' ability to meet its legal and financial obligations, and potentially imposing a multi-million dollar unfunded capital mandate on the Petitioners as well as materially increasing its costs of operations without a funding source for those expenses. The capital cost to convert secondary effluent treatment to the Rule's standards is estimated between $1.00 to $5.00 per gallon (e.g., a 10 MGD wastewater facility would cost between $10 Million to $50 million to retrofit, which if funded by bond borrowing converts to an annual estimated debt service payment of between $800,000 and $4,000,000.) The operating cost of retrofitted treatment processes is estimated between $0.20 to $1.00 per thousand gallons (e.g., a 10 MGD wastewater facility would see increased operating costs between $750,000 to $3,500,000 per year).

## IV. REQUESTED CORRECTIONS AND DISCLOSURE.

(a) Correction.

Petitioners request correction of the following disseminated, influential information for failure to meet IQA quality requirements.

(1) Statement: "The quality of injected fluids [in the area subject to the Rule] is poor and the movement of fluid into a USDW is likely to endanger its use..." 70 Fed. Reg. 70523 (emphasis added).

Basis for Correction: EPA did not cite any data suggesting the pathogenic microorganisms are present in treated, injected effluent migrating into USDWs at levels that may result in the municipal systems violating a national primary drinking water regulation, or that may otherwise adversely affect the health of persons using that water. In the absence of such data, its claim that fluid movement is "likely" to endanger USDWs does not meet IQA quality standards.

An agency's data and methods must be sufficiently transparent that "an independent reanalysis could be undertaken by a qualified member of the public." Consequently, agencies must generally make available the "data and methods needed" to determine whether scientific results reported in government information are reproducible in any given case. This standard applies both to agency analysis of data from a single study, and to analyses that combine information from multiple studies. 67 Fed. Reg. at 8459-60. Additionally, agencies responsible for disseminating influential scientific, financial, or statistical information (such as the information at issue here) must provide a "high degree of transparency about data and methods to facilitate reproducibility of such information by qualified third parties." 67 Fed. Reg. at 8460.

Due to EPA's failure to be completely transparent regarding its data and methods, Petitioners are unable to test or reproduce EPA's conclusions that (i) the quality of injected fluids in the area subject to the Rule is poor, or (ii) and the movement of fluid into a USDW is likely to endanger its use.

Requested Correction: Deletion.

(2) Statement: "[A]dditional wastewater treatment to remove pathogenic organisms is needed to ensure that continued [injection] does not endanger USDWs..." 70 Fed. Reg. 70524.

Basis for Correction: EPA cited no study or sample data in the Rule demonstrating all USDWs subject to the Rule are now or may become actually endangered. Furthermore, EPA acknowledged that "there will be some level of pathogen die-off in the deep subsurface." 70 Fed. Reg. at 70525. However, EPA apparently did nothing to reconcile the apparent data inconsistency between its claims of endangerment and the evidence of pathogen die-off, a reconciliation required by law. See 42 U.S.C. 300g-1(b)(3)(B)(v); 67 Fed. Reg. at 8460.

IQA requires disclosure of the scientific information supporting the disseminated information. 67 Fed. Reg. at 8455-58 (agency must identify sources of disseminated information so public can assess for itself the objectivity of that information, and have access to full, accurate, transparent documentation and error sources affecting data quality). EPA did not do so in this case, and the record is bare of evidence supporting the challenged statement.

Requested Correction: Deletion.

(3) Statement: "[P]athogens may remain in wastewater following secondary treatment and can threaten USDWs if injected in certain parts of Florida..." 70 Fed. Reg. 70524.

Basis for Correction: This general claim regarding the potential threat posed by pathogens that "can threaten" USDWs "in certain parts of Florida" fails IQA's utility and objectivity tests. See 67 Fed. Reg. at 8459. Given that the Rule concerns a discrete universe of facilities, within a defined geographic and geologic area, this generalized claim about a potential, undefined threat, is not useful. Also, the OMB Guidelines mandate that disseminated information must be presented in an accurate, clear, complete, and unbiased manner. Id. The generalized statement cited is neither complete nor unbiased.

Requested Correction: Clarification, based on IQA-compliant data, that pathogens "can threaten" USDWs with endangerment only under certain site-specific circumstances. Alternatively, deletion.

(4) Statement: "[I]ncomplete information about the movement and fate of pathogens in the subsurface....[prevents] EPA from concluding pathogen die-off is sufficient to protect USDWs in the areas of Florida targeted by today's rule" as stated at 70 Fed. Reg. 70525.

Basis for Correction: EPA did not specifically identify nor disclose the studies or evaluations it relied upon in making the disseminated statement. Furthermore, given that EPA cited no data, study, or information demonstrating that pathogens are or will be present, to a reasonable scientific certainty, in USDWs at levels that constitute a Section 1421(d)(2) as the result of the fluid movement that is the subject of the Rule, its rejection of data demonstrating pathogen die-off represents a particularly egregious IQA violation. Furthermore, EPA did not discuss how it reconciled the pathogen die-off data with its determination that pathogens endangered USDWs, a reconciliation required by 42 U.S.C. 300g-1(b)(3)(B)(v) and the OMB Guidelines. See 67 Fed. Reg. at 8460. Finally, IQA requires disclosure of the scientific information supporting the disseminated information. 67 Fed. Reg. at 8458 (agency must identify sources of disseminated information so public can assess for itself the objectivity of that information, and have access to full, accurate, transparent documentation and error sources affecting data quality). EPA did not do so.

Requested Correction. Deletion.

(b) Data And Methods Disclosure.

Petitioners request disclosure of the following:

(1) The underlying data and methods EPA used to determine that the fluid movement referenced in 70 Fed. Reg. 70527 poses a Section 1421(d)(2) endangerment.

(2) The underlying data and methods EPA used to establish criteria for determining when an injection well "may" pose a Section 1421(d)(2) endangerment.

(3) The underlying data and methods EPA used to determine that "without the filtration that goes with high-level disinfection, there is no assurance that the treatment would effectively remove pathogenic protozoa..." as stated at 70 Fed. Reg. 70525.

(4) The underlying data and methods EPA used to determine that relying on hydrogeologic demonstrations "would not be sufficiently protective of USDWs" as stated at 70 Fed. Reg. 70527.

(5) The underlying data and methods EPA used to determine that "where injection has caused or may cause fluid movement into USDWs, pretreatment, secondary treatment, and high-level disinfection is the only effective alternative to the 'no movement' standard as a means of ensuring non-endangerment" as stated at 70 Fed. Reg. 70526.

(6) The underlying data and methods EPA used to determine "applying the [Rule] to new wells [will not] prohibit new facilities or wells from being conducted" as stated at 70 Fed. Reg. 70527.

(7) The underlying data and methods EPA used to determine the fluid movement referenced in the Rule will always result in the movement of "contaminants," as used and defined by the Safe Drinking Water Act, 42 U.S.C. 300f et seq. and/or 40 CFR 144.12(b) into a relevant USDW.

(8) The underlying data and methods EPA used to determine injected fluid disposed at the facilities subject to the Rule contains "high concentrations" of pathogens as stated at 70 Fed. Reg. 70524.

(9) The underlying data and methods EPA used to determine "there is incomplete information about the movement and fate of pathogens in the subsurface....[that prevents] EPA from concluding pathogen die-off is sufficient to protect USDWs in the areas of Florida targeted by today's rule" as stated at 70 Fed. Reg. 70525.

(10) The underlying data and methods EPA used to establish and support the "premise that the quality of injected fluids [in the area subject to the Rule] is poor and the movement of fluid into a USDW is likely to endanger its use" as stated at 70 Fed. Reg. 70523 (emphasis added).

(11) The underlying data and methods EPA used to determine that the Rule and the related disseminated information are consistent with the quality requirements of OMB Guidelines §V(3)(ii)(C).

The document EPA prepared identifying each population addressed by its estimate of public health effects, the expected risk or central estimate of risk for each specific population, each appropriate upper-bound or lower-bound estimate of risk, each significant uncertainty identified in the risk assessment, all known peer-reviewed studies that are either directly

relevant to or fail to support EPA's estimate of health effects, and the methodologies EPA employed to reconcile inconsistencies in the data. See 67 Fed. Reg. at 8460.

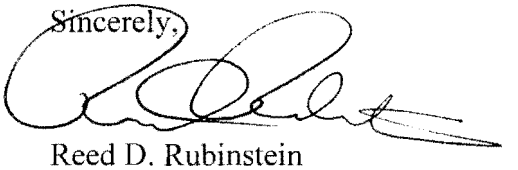
## V. RELIEF REQUESTED.

Petitioners request the following relief:

(a) Correction as requested in Section IV(a) of this Petition.

(b) Disclosure, as requested in Section IV(b) of this Petition.

Sincerely,



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RDR:jmj