January 21, 2005

Mr. William B. Schatz, General Counsel
Northeast Ohio Regional Sewer District
3826 Euclid Avenue
Cleveland, Ohio 44115-2504

Dear Mr. Schatz:

I am responding to the petition for rulemaking that you submitted to the U.S. Nuclear Regulatory Commission (NRC) on August 2, 1993, on behalf of the Northeast Ohio Regional Sewer District (hereafter, the District). Your petition, docketed as PRM-20-22, requested that the NRC amend its regulations to: (1) require that all licensees provide no less than 24 hours advance notice to the appropriate sewage treatment plant before releasing radioactive material to the sanitary sewer system, and (2) explicitly exempt materials that enter the sanitary waste stream under 10 CFR 20.2003 from the requirements regarding obtaining NRC approval for incineration. Your rationale for the first amendment is that the District's Southerly Wastewater Treatment Center has been contaminated by disposal of radioactive wastes into the sanitary sewer system, resulting in costly characterization and remediation. You stated that the second amendment would clarify that NRC does not intend to inhibit the operation of over 200 sewage sludge incinerators across the nation due to discharges from NRC licensees.

On October 20, 1993, NRC published a notice of receipt of the District's petition for rulemaking in the *Federal Register* (58 FR 54071), to which 12 public comment letters were received. Ten of the 12 comment letters received addressed the District's request for no less than 24 hours advance notice requirement. Three commenters supported the petition; one commenter supported the intent of the petition without endorsing a rulemaking; and the other six commenters did not support such rulemaking citing unjustified regulatory burden and potential problems in implementing the proposed notification requirement. Eight of the 12 comment letters received related to the District's request regarding removal of the approval requirement for incineration. Two supported the petitioner's proposal, two requested clarification, and four opposed the petition because of undue risk placed upon the communities surrounding the incinerator.

On February 25, 1994, NRC published an advance notice of proposed rulemaking (ANPR) in the *Federal Register* (59 FR 9146) to seek information whether an amendment to its regulations governing the release of radionuclides from licensed nuclear facilities to sanitary sewer systems was needed based on then current sewer treatment technologies. The ANPR also noted the receipt of a petition submitted by the District and specifically solicited public comments on the two rulemaking changes requested in the petition. Through the public comment process for the ANPR, there were 21 comments related to the District's petition. The majority of comments opposed the reporting requirement proposed by the petitioner. Six commenters supported some type of reporting requirements. There were six comments that addressed the District's request regarding prior approval for incineration. Four commenters supported the petition, and two opposed the petitioner's proposed changes. Public comments on the two Federal Register notices are discussed in detail in the attachment to this letter.

Since there were concerns raised on a broader issue of long-term effects of releases of radioactive materials into sanitary sewer systems, resolution of the petition was deferred until studies are conducted regarding potential radioactive contamination in sewage sludge. Since 1994, NRC conducted several studies and participated in the Interagency Steering Committee on Radiation Standards (ISCORS). NRC has co-chaired, with the Environmental Protection Agency, the ISCORS Sewage Sludge Subcommittee to coordinate and facilitate a systematic and thorough study of potential concerns related to radioactive materials in sewage sludge. Mr. Tom Lenhart from the District is a member of the ISCORS Sewage Sludge Subcommittee. He has participated in meetings, evaluated survey data, reviewed dose modeling, and assisted in preparing the associated reports.

In November 2003, the results of the survey were published in NUREG-1775, "ISCORS Assessment of Radioactivity in Sewage Sludge: Radiological Survey Results and Analysis." Based on the survey report, most of the survey samples collected were at, or near, the detection limits, with the exception of naturally occurring radioactive materials (NORM). Draft report, NUREG-1783, "ISCORS Assessment of Radioactivity in Sewage Sludge: Modeling to Assess Radiation Doses" and draft final report, EPA 832-R-03-002B, "ISCORS Assessment of Radioactivity in Sewage Sludge: Recommendations on Management of Radioactive Materials in Sewage Sludge and Ash at Publicly Owned Treatment Works" were made available to the public for comment as announced in the *Federal Register* (68 R 66503; November 16, 2003). ISCORS is currently finalizing these two reports. There are no widespread public health and safety concerns identified by the survey and dose modeling due to releases of licensed material into sanitary sewer systems. The results indicated that radioactivity was primarily attributable to NORM rather than licensed material. These findings are significant because regulatory requirements for NRC licensees do not pertain to NORM. In addition, the concentrations found in sewage sludge were generally low compared to background and dose limits; they do not pose an undue risk to the public health and safety.

NRC is denying your request to amend 10 CFR 20.2003 to require that all licensees provide no less than 24-hour advance notification to the appropriate sewage treatment plant before releasing radioactive material to the sanitary sewer system because a review of the relevant data, analyses, comments, and reports does not support such a requirement. Radioactive materials discharged to sanitary sewer systems are already adequately controlled and managed as a result of the 1991 changes to 10 CFR 20.2003 and by NRC guidance. The majority of detectable radionuclides at sewage facilities are attributable to NORM and are not subject to NRC regulations proposed in this petition. In addition, any advance notice is impractical, especially for continuous or frequent batched discharges. NRC has concluded that the requested rulemaking would neither increase radiation safety nor reduce radiation exposure; therefore, the rulemaking would result in a significant regulatory burden, with no additional protection of health or safety.

NRC is also denying your request to amend 10 CFR 20.2004 to no longer require prior NRC approval for incineration of licensed radioactive materials that enter the sanitary waste stream under 10 CFR 20.2003. NRC regulations in 10 CFR 20.2004 apply to either an NRC or an Agreement State licensee and generally do not apply to a POTW or its operations. POTWs are not required to obtain NRC approval for incineration of their sewage sludge, unless they possess an NRC or Agreement State license for possession of licensed radioactive material in the sewage sludge. Studies, surveys, and modeling efforts conducted to date indicate that releases of radioactive material from licensed facilities in accordance with 10 CFR 20.2003

generally do not reconstitute in sewage sludge in sufficient concentrations to pose risk to public health and safety and thus it is unlikely that a POTW will be required to possess an NRC license for its sludge. Therefore, a change to 10 CFR 20.2004 regulations is not needed. If a licensee incinerates licensed material, NRC continues to believe that the NRC approval requirements are necessary to have reasonable assurance that the public health and safety are adequately protected.

NRC has considered your petition and the stated rationale. For the reasons provided in the attached *Federal Register* notice, NRC is denying your petition. The *Federal Register* notice for denying the petition is being transmitted to the Office of Federal Register for publication.

Sincerely,

/RA/

Annette Vietti-Cook,
Secretary of the Commission

Enclosure: *Federal Register* Notice