



ORMUG DOCKETED  
LISTED  
SCIENCE • INDUSTRY • MEDICINE • ACADEMIA

1601 West Fifth Ave. • Suite 233  
Columbus, Ohio 43212-2367  
MAY 26 P 4:00

18

OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

Secretary of the Commission  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

DOCKET NUMBER  
PROPOSED RULE PR 20  
(59 FR 9146)

Attn: Docketing and Service Branch

Re: ANPR, Federal Register Vol. 59, No. 38, p. 9146, Disposal of Radioactive Materials by Release into Sanitary Sewer Systems

The Ohio Radioactive Materials Users Group (ORMUG) is a non-profit, voluntary association of medical, industrial, university, utility, research organizations, and specialized individuals. Its main purpose is to support and assist public and private activities utilizing radioactive materials and in particular, development of a low level radioactive waste system for the State of Ohio. These activities are intended that such materials will be handled and disposed of in a safe and environmentally acceptable manner and as economically as possible, i.e. ALARA. The comments of the Board of Directors of ORMUG regarding the above cited Advance Notice of Proposed Rulemaking follow.

The disposal of certain radioactive materials via sanitary sewer has been a part of licensed activities for many years. However, even longstanding practices must be periodically scrutinized. The current state of sanitary sewer disposal, including the processing of sewage and the ultimate disposal of the products of processing, is rooted in the past and may be due further review, in light of technological advances in both areas.

First, it appears that the events cited in the case studies may have been the result of abnormal events. No amount of regulation, planning, or notification can prevent inadvertent releases as the result of a system failure or other error. Secondly, the revised 10 CFR 20 has reduced doses to the general public (including sewer workers) to 100 mrem/yr and the result has been substantial decreases in both ALI and DAC for all radionuclides. The regulations have also been changed regarding solubility and dispersibility, resulting in the closing of potential loopholes for disposal via sanitary sewer. As stated in the ANPR, most of the contaminants in the case studies are insoluble materials and would not meet current criteria. Given these modifications, it seems unlikely that the types of contamination events cited would occur under the current regulations. Therefore, the "problem" may have been fixed by the recent regulatory changes and clarifications, but not enough time has passed to make that determination definitively.

No information has been presented documenting radioactive contamination problems at publicly owned treatment works (POTW) later than the mid-1980s. What has occurred in the interim? Resources need not be expended on a "problem" that may already be fixed. Before proceeding with any actions, a study should be made of the extent of sanitary sewer disposal practices and determine the current status at POTWs with regard to radioactive contamination.

9406080040 940526  
PDR PR  
20 59FR9146 PDR

DS10

It should also be noted that not all licensees use the sanitary sewer for disposal. The cited 23,000 licensees may tend to overstate the problem potential and cause undue alarm. An initial step could be identification of those licensed activities which use sanitary sewer disposal. Licensing guidance provided by NRC could outline the information required for control of materials released by sanitary sewer, how this should be evaluated by a licensee, and how it would be best documented in any new license or renewal application. This would not result in an immediate, high-impact compliance burden, but a program of conversion phased-in over the period of license renewals.

The petition for rulemaking proposed by the Northeast Ohio Regional Sewer District (NEORS) is not an acceptable request. The twenty-four hour notification requirement would have no practical effect, since non-routine events know no schedule, and it must be presumed that normal operations under today's standards would not result in contamination of POTW facilities. A requirement for notification of the POTW would place undue burden on the licensee, both administratively and operationally. It would also serve to dilute the authority of the NRC, and place a measure of control for the use of radioactive materials, as well as the operation of licensee facilities, in the hands of individuals not empowered or qualified to have it.

The additional requested exemption for all POTWs that incinerate sludge to do so without regulation, is also without merit. This would only serve to provide an open-ended system for radioactive materials to pass into the environment and to the public without limitation or characterization. Responsibility for public health and welfare is not solely in the hands of the NRC or the licensee. The POTW operators certainly must now account for non-radiological materials in sludge and take steps to limit their dispersion. Radioisotopes are readily identifiable compared to the chemistry that must be done for other contaminants and could be included as a routine analysis. Sludge should be sampled prior to incineration or other treatment in order to limit dose to the general public, in accordance with the same limits and regulations as those individuals utilizing radioactive materials.

There has been an assertion by some that sanitary sewer disposals will be used as a means of relief from the current status of LLRW disposal. This suggestion is absurd and demonstrates little understanding of the nature of radioactive materials and LLRW. If the solution to waste disposal problems were indeed that simple, it would be a great revelation to thousands of radioactive material users throughout the region. In fact, such a means of disposal is specifically prohibited by the regulations.

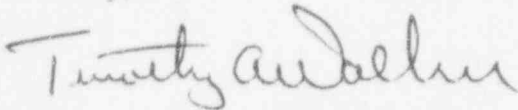
The exemption for patient excreta should be left intact for the present. No modeling has been done regarding these releases, and due to the sheer number of events and the randomness of the occurrence it may be very difficult. Lacking any definitive information, we should be wary of placing additional burden on the medical system. Certainly patients cannot be asked to monitor and record their "disposals" so the responsibility falls to the physician/hospital. This would only serve to drive up costs to individual patients, influence insurance costs, and perhaps affect the level of care given.

In summary, the disposal of radioactive materials via sanitary sewer is in need of review. However, before changing current practices, an evaluation should be made of the status of radioactive contamination events at POTWs. Given a lack of information regarding current radioactive contamination events, and that the regulations have been significantly changed since the last identified contamination, this would seem a reasonable starting place. The proposal from NEORS is not an

acceptable approach to the control of radioactive materials and should not be given further consideration. The current exemption for patient excreta should remain unchanged until a control plan and guidance for other materials is established and impact on health care can be assessed.

You may contact me at 614-424-7959, or at the above address, if discussion of these comments is desired. Thank you.

Sincerely,

A handwritten signature in cursive script that reads "Timothy A. Walker".

Timothy A. Walker, Vice-Chairman  
Ohio Radioactive Materials Users Group