



DOCKET NUMBER
PROPOSED RULE

PR Chap. 1

(53FR 49886)

DOCKETED
USNRC

258

'89 DEC 13 P4:07

STATE OF ILLINOIS
DEPARTMENT OF NUCLEAR SAFETY

1035 OUTER PARK DRIVE
SPRINGFIELD 62704
(217) 785-9900

TERRY R. LASH
DIRECTOR

December 11, 1989

The Honorable Kenneth Carr, Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Chairman Carr:

It is my understanding that the Commission recently considered a staff proposal regarding exempting certain radioactive materials from regulatory control. As applied to the disposal of low-level radioactive waste, this proposal is usually referred to as a Below Regulatory Concern (BRC) policy. I am deeply concerned about any policy the Commission might consider that would result in the disposal of low-level radioactive waste (LLW) at any place other than a licensed LLW disposal facility. In my opinion, such a policy is not in the public interest and could cause irreparable damage to the work being done by states and regional compacts to site and develop new facilities for the disposal of LLW, as required by federal law.

On September 19, 1988, I wrote to the Office of Management and Budget to express my concerns regarding a similar BRC proposal being considered by the U.S. Environmental Protection Agency. (See enclosed letter.) I stated then that the development of new LLW disposal facilities and the adoption of other volume reduction measures have made adoption of a BRC policy unnecessary. I also noted that, ironically, a BRC policy would "solve a problem that does not exist, the shortage of LLW disposal capacity, only to exacerbate the solid waste disposal crisis." This observation is still valid. Not only does disposal of LLW in landfills reduce the availability of their disposal capacity, but permitting disposal of LLW in such facilities would make it practically impossible to site new landfills.

The fiscal implications of a BRC policy on generators of LLW are not immediately apparent. While a BRC policy would probably benefit those generators who can dispose of LLW without regard to the radioactive hazard, the unit costs of disposal at LLW disposal facilities would increase, because fixed costs of facility development and operation would have to be borne among fewer generators. In particular, the adoption of a BRC policy by the Commission would make it even more expensive to dispose of LLW wastes at the regional facilities being developed by the states and compacts.

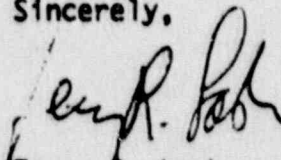
DS10

The Honorable Kenneth Carr
December 11, 1989
Page 2

Finally, adoption of a BRC policy based on an individual dose limit of 10 millirems per year is particularly objectionable. Illinois has adopted an individual dose limit of 1 millirem per year for its low-level radioactive waste disposal facility. Illinois would find it very difficult to implement a BRC standard that permits greater exposures than would result if the waste were disposed of at the LLW disposal facility. Not only would this be contrary to generally accepted ALARA principles, but implementation of such a BRC policy would also result in an unacceptable situation where radiation exposures at unregulated facilities could be greater than those permitted at the licensed LLW disposal facility.

For these reasons, I strongly urge you not to propose a policy statement on the subject of BRC. The State of Illinois had strong objections to the draft policy statement. It does not appear that these objections have been resolved to our satisfaction. Therefore, Illinois would strongly oppose any action the Commission takes towards adoption of a BRC policy.

Sincerely,



Terry R. Lash
Director

TRL:sp

Enc.



CORRECTED VERSION

STATE OF ILLINOIS
DEPARTMENT OF NUCLEAR SAFETY

1035 OUTER PARK DRIVE
SPRINGFIELD 62704
(217) 785-9900

September 19, 1988

TERRY R. LASH
DIRECTOR

VIA FEDERAL EXPRESS

Mr. Arthur G. Fraas, Chief
Natural Resources Branch
Office of Information and Regulatory Affairs
Office of Management and Budget
New Executive Office Building, Room 3019
725 - 17th Street, N.W.
Washington, D.C. 20503

Dear Mr. Fraas:

The Illinois Department of Nuclear Safety (IDNS) is concerned about a proposed rule that the U.S. Environmental Protection Agency (EPA) has recently submitted to the Office of Management and Budget. The proposed rule concerns the disposal of low-level radioactive waste (LLW) and certain wastes containing naturally occurring or accelerator-produced radioactive materials (NARM). Our understanding of this proposed rule is based primarily on a document entitled "Overview of EPA's Environmental Standards for the Land Disposal of LLW and NARM Waste in 1988" ("Overview"), which was presented at the 10th Annual DOE Low-Level Waste Management Conference held on August 30-September 1, 1988, in Denver, Colorado. The document was authored by James M. Gruhlke, Floyd L. Galpin and William F. Holcomb of EPA's Office of Radiation Programs. A copy is enclosed.

For the reasons detailed below, I believe that the proposed rule contains significant deficiencies and should not be published in the Federal Register. In particular, I am concerned about the provisions in the proposed rule pertaining to disposal of LLW identified as being "below regulatory concern" (BRC) and establishing a "standard" for the disposal of certain NARM wastes. In my opinion, these two provisions of the proposed rule could cause irreparable damage to the important and sensitive work of states and regional compacts to site and develop new facilities for the disposal of LLW.

EPA'S BRC STANDARD

1. EPA Should Not Propose a BRC Standard.

EPA's proposed BRC limit is based on the fallacious assumption that there is a shortage of LLW disposal capacity. In the Overview, it is asserted that one of the benefits that would result from the BRC standard

is that it would "conserve much needed disposal space." (Overview, p. 5.) Yet, LLW disposal capacity is not in short supply. Indeed, one of the complaints of LLW generators is that there soon will be an overabundance of disposal capacity.

In response to the mandate of the Low-Level Radioactive Waste Policy Act, which made individual states responsible for providing disposal capacity for LLW generated within their borders, about a dozen LLW disposal facilities are in various stages of development, compared to the three that are operating currently. Because the three existing LLW facilities provide ample disposal capacity, there soon will be more than enough room to dispose of LLW in the future.

In addition to the development of new disposal facilities, other measures are already in progress that will reduce the volume of LLW sent to new disposal facilities. For instance, on August 22, the Nuclear Regulatory Commission (NRC) proposed a rule that is intended to ease the regulatory uncertainty associated with the disposal of LLW at nuclear reactor sites and at certain other NRC licensed facilities. ("Reasserting NRC's Authority for Approving Onsite Low-Level Waste Disposal in Agreement States," 53 Fed. Reg. 31880 - 31882.) On August 29, the NRC proposed a rulemaking that would amend NRC regulations to permit the onsite incineration of slightly contaminated waste oils generated at licensed nuclear power plants. ("Disposal of Waste Oil by Incineration," 53 Fed. Reg. 32914-32919.) According to the Environmental Assessment prepared for the waste oil rule, the proposed rule would allow approximately 150,000 gallons of waste oil to be incinerated annually, rather than being sent to LLW disposal facilities. (53 Fed. Reg. 32919.)

At the same time that activities are being undertaken to increase LLW disposal capacity, the United States is on the verge of exhausting available landfill capacity for non-radioactive waste. According to the Environment Reporter, a report issued by the Maine Chamber of Commerce and Industry said that for Maine "only about two years remain before commercially available landfill capacity is exhausted, but at least three to five years are needed to develop appropriate alternatives." (Environment Reporter, vol. 19, p. 976, Sept. 9, 1988.) Maine's situation is not unique. At current rates of disposal, Illinois' existing landfill capacity will be exhausted in about 5 years. (Illinois Environmental Protection Agency, "Available Disposal Capacity for Solid Waste in Illinois," Annual Report to Governor James R. Thompson and the Illinois General Assembly, August 1987.) Illinois is addressing the landfill shortage, but a solution is still years away. On August 23, Governor Thompson signed the Solid Waste Planning and Recycling Act, which requires the city of Chicago and counties with more than 100,000 residents to develop and adopt plans to recycle 25 percent of their municipal waste. Ironically, EPA's BRC proposal would seem to try to solve a problem that does not exist, the shortage of LLW disposal capacity, only to exacerbate the solid waste disposal crisis.

2. The Fiscal Impacts of EPA's Proposed BRC Standard Are Overstated.

The Overview provides a cursory cost-benefit analysis, and concludes that adopting a 4 millirem per year BRC standard would result in a 34%

reduction in waste being sent to LLW disposal facilities, and a cost savings of more than \$600 million over 20 years.

IDNS cannot tell from the information it has received whether EPA's waste volume reduction estimates take into account the significant advances in waste volume reduction that have been observed over the past few years. Furthermore, in the Overview, EPA does not specify whether the net BRC savings account for the increased cost for disposal of LLW at licensed facilities that will result from adoption of a 4 millirem per year BRC standard. The major costs associated with development and operation of a LLW facility are fixed, such as the collection of long-term care, maintenance and liability funds. If the volume of waste being disposed of at such a facility is reduced, the fee per unit volume disposed of at the LLW disposal facility will go up by a corresponding amount. Thus, the cost savings that are derived from a BRC rule will be largely illusory. The result of adoption of a BRC standard will be cost shifting, not cost savings. In fact, LLW generators who take "advantage" of BRC disposal could be faced with paying higher baseline costs for the LLW disposal facility and additional costs for segregating and surveying waste to meet BRC requirements. The result could be a net additional cost to these generators.

OMB should consider the effect this increase will have on federal agencies that generate LLW and intend to dispose of their waste at non-federal disposal facilities. With some exceptions, the Low-Level Radioactive Waste Policy Act, as amended, requires the states to provide disposal capacity for LLW generated by federal agencies. When considering whether to approve EPA's BRC proposal, OMB should evaluate the financial impact that the resulting increase in LLW disposal fees will have on the budgets and programs of those federal agencies, such as DOE, DOD, HHS, FDA and the Veteran's Administration, that might dispose of LLW at licensed LLW disposal facilities.

3. The 4 Millirem Per Year Standard Should Not be Adopted.

In the Overview, EPA implies that it has chosen a 4 millirem per year standard:

Our economic analyses show that the use of a BRC criteria to eliminate certain low-activity radioactive wastes from the full LLW regulation and disposal process is very cost effective. EPA estimates that approximately 35 percent by volume of all commercial and DOE LLW could be re-classified as BRC with a resulting maximum annual dose to an individual of less than 4 mrem/year and potential savings of more than 600 million dollars over 20 years.

Adoption of a limit of 4 millirem per year for BRC disposal appears to be a departure from the EPA's thinking of March 1987. In "EPA's LLW Standards Program: Below Regulatory Concern Criteria Development" ("Criteria Development"), presented by William Holcomb and James Gruhlke at Waste Management '87, EPA suggested that it was leaning toward a 1 millirem per year standard. The authors devoted an entire section of Criteria Development to the advantages of a 1 millirem per year

criterion. Among the advantages discussed was that a 1 millirem per year standard "would be comparable with the proposed BRC levels and risks currently being considered by Canada, the United Kingdom, the UN's International Atomic Energy Agency and the International Commission of Radiologic Protection." (Criteria Development, p. 5.) Since the publication of Criteria Development, Texas has adopted a 1 millirem per year BRC limit for short-lived radionuclides. In addition, the utility industry has indicated that 1 millirem per year is the appropriate BRC standard. NRC noted in the notice for its proposed waste oil incineration rule that the Edison Electric Institute and the Utility Nuclear Waste Management Group, in their petition to the NRC to initiate the rulemaking, suggested that:

an appropriate basis for establishing a cutoff level for determining whether specific waste streams were BRC would be that the direct release of the specific waste streams to the environment would not result in a dose to an individual member of the general public greater than 1 mrem/year. (53 Fed. Reg. 32915.)

Finally, Illinois has adopted a 1 millirem per year exposure limit for its low-level radioactive waste disposal facility. 32 Ill. Adm. Code 606.30(d)(4). Illinois would find it difficult to implement a BRC standard that is higher than its standard for regulated LLW disposal. Logically, the socially acceptable risk associated with LLW disposal does not vary if the waste is disposed of at an Atomic Energy Act licensed facility, a landfill, an incinerator or by some other means.

DISPOSAL OF NARM

1. EPA Does Not Have the Authority to Adopt the Proposed Rule

EPA states in the Overview that the proposed rule is being developed under the authority of the Atomic Energy Act of 1954, as amended, and the Reorganization Plan No. 3 of 1970. On the second and third pages of the Overview, EPA states as follows:

We are using the Toxic Substances Control Act for the necessary NARM authority. Section 6 of this Act provides that if the Administrator determines that an unreasonable risk exists, he may promulgate regulations on the disposal of a chemical mixture or substance to mitigate such risks.

* * *

NARM WASTE DISPOSAL STANDARD

The regulation of certain NARM waste is proposed under the Toxic Substance [sic] Control Act (TCSA) since the AEA does not apply to NARM. Since the proposed NARM regulation would require the disposal of regulated NARM in an AEA authorized LLW disposal facility, such NARM wastes would

become subject to the AEA post-disposal requirements of that facility.

A close reading of the Atomic Energy Act, the Toxic Substances Control Act, and the Reorganization Plan No. 3 of 1970 reveals that EPA's contemplated promulgation of a "standard" for disposal of NARM exceeds EPA's authority from the President and Congress. Section 2(a)(6) of the Reorganization Plan No. 3 of 1970 transferred to the EPA those functions of the Atomic Energy Commission under the Atomic Energy Act of 1954 that "consist of establishing generally applicable environmental standards for the protection of the general environment from radioactive material." "Standards" mean "limits on radiation exposures or levels, or concentrations or quantities of radioactive material, in the general environment outside the boundaries of locations under the control of persons possessing or using radioactive material." Section 2(a)(7) of Reorganization Plan No. 3 transferred to the EPA all functions of the Federal Radiation Council under 42 U.S.C. §2021(h). Under 42 U.S.C. §2021(h), the Administrator of the EPA is required to:

advise the President with respect to radiation matters, directly or indirectly affecting health, including guidance for all Federal agencies in the formulation of radiation standards and in the establishment and execution of programs of cooperation with States.

Under controlling law, EPA's authority is to promulgate standards consisting of limits on radiation exposures or levels, or concentrations or quantities of radioactive material, in the general environment. EPA does not have the authority to mandate how those standards are to be enforced, whether the standards will be enforced by the federal government or state governments, or whether federal action preempts state action. This authority belongs to Congress, and, unless delegated by Congress, can be exercised only by Congress.

While EPA's authority to issue generally applicable environmental standards for protection of the general environment from radioactive material has a sound basis in law, the contemplated "standard" pertaining to disposal of NARM is not a standard at all. As EPA states, "the proposed NARM regulation would require the disposal of regulated NARM in an AEA authorized LLW disposal facility. [Emphasis added]." EPA does not have the authority to require where NARM will be disposed of. EPA does not have the authority to require that NARM be disposed of in LLW disposal sites licensed under the Atomic Energy Act any more than it has the authority to require that NARM be disposed of on land under the jurisdiction of the Department of Defense, on an Indian reservation, or in a state park. Congress has the power to amend the Atomic Energy Act, subject to the President's approval or Congress' override of a Presidential veto. EPA does not. Congress developed an intricate framework for the disposal of LLW in the Low-Level Radioactive Waste Policy Act, as amended. That framework does not provide for disposal of NARM. Congress acted through the constitutional legislative process, and the resulting legislation was the product of carefully negotiated compromises. EPA's contemplated action regarding disposal of NARM would be improper because it would be beyond EPA's lawful powers.

2. EPA Does Not Have the Preemptive Authority to Require That State Licensed LLW Disposal Facilities Dispose of NARM.

As stated above, EPA proposes to require that NARM be disposed of in LLW disposal facilities licensed under the Atomic Energy Act. It appears that the proposal would require that these facilities accept NARM for disposal. Many states, including Illinois, have entered agreements with the U.S. Nuclear Regulatory Commission under Section 274b of the Atomic Energy Act and are responsible for licensing facilities for the disposal of LLW. This type of state licensed facility is presumably one of the facilities referred to in the Overview as "an AEA authorized LLW disposal facility." One of the conditions on a state entering such an agreement with the NRC is that the state's program must be "compatible" with the NRC's program. Congress did not require that the programs be identical and did not prohibit a state from having more stringent requirements than the NRC as long as such requirements are not incompatible. As long as compatibility with the NRC's program is maintained, a state could decline to license disposal of some types of LLW in a LLW disposal facility. Since the NRC's program does not provide for disposal of NARM in a LLW disposal facility, states have the power under the Atomic Energy Act to prohibit disposal of NARM in the LLW disposal facility. EPA does not have the authority to require a state licensed LLW disposal facility to dispose of NARM when such disposal is not licensed by the state. A requirement that NARM cannot be disposed of in a manner that would cause a person in an unrestricted area to receive a dose in excess of a specified limit is far different from a requirement that NARM must be disposed of in a facility over which EPA has no regulatory control. EPA's apparent assertion of preemptive authority is inconsistent with the provisions of TSCA. Under TSCA, the Administrator of EPA, upon a finding that disposal of a chemical substance or mixture presents an unreasonable risk of injury to health or the environment, is authorized to adopt:

a requirement prohibiting or otherwise regulating any manner or method of disposal of such substance or mixture, or of any article containing such substance or mixture, by its manufacturer or processor or by any other person who uses, or disposes of, it for commercial purposes.
15 U.S.C. §2605(a)(6)(A).

Congress specifically addressed preemption of state law by TSCA in Section 18 of TSCA, 15 U.S.C. §2617. Subsection (a)(1) of that section provides that TSCA does not affect the authority of a state or political subdivision "to establish or continue in effect regulation" of a substance regulated under TSCA, except as provided in subsection (a)(2). This provision clearly evidences Congress' intent not to preempt state action except as expressly provided in TSCA. Subsection (a)(2)(B) provides that rules or orders under Section 2604 or 2605 do preempt certain actions by states or political subdivisions of states. However, this provision excludes "a rule imposing a requirement described in subsection (a)(6) of Section 2605." The only authority in TSCA which authorizes EPA to promulgate disposal standards for chemical substances is section 2605(a)(6). EPA has no power to assert preemptive authority when Congress addressed the issue of preemption in TSCA and expressly did not give EPA authority to preempt state actions regarding disposal of

substances controlled by TSCA. A state licensing action prohibiting the disposal of NARM in a LLW disposal facility licensed by the state under the Atomic Energy Act could not, therefore, be preempted by an EPA rule adopted under TSCA.

3. EPA Has Not Considered a Statutory Exception in TSCA Which Could Significantly Change the Impact of Its Proposed NARM Standard.

Although EPA does have authority under TSCA to promulgate real standards pertaining to chemical substances, many of the NARM wastes at issue would appear not to be chemical substances under TSCA. "Chemical substance" is defined in subsection 3(2)(A) of TSCA. Several types of items are excluded from the definition, including:

any food, food additive, drug, cosmetic, or device (as such terms are defined in section 201 of the Federal Food, Drug, and Cosmetic Act [21 U.S.C. §321]) when manufactured, processed, or distributed in commerce for use as a food, food additive, drug, cosmetic, or device. 15 U.S.C. §2602(2)(B)(vi).

"Device" is defined in Section 201 of the Federal Food, Drug, and Cosmetic Act as:

an instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent, or other similar or related article, including any component, part, or accessory, which is--

- (1) recognized in the official National Formulary, or the United States Pharmacopeia, or any supplement to them,
- (2) intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease, in man or other animals, or
- (3) intended to affect the structure or any function of the body of man or other animals, and

which does not achieve any of its principal intended purposes through chemical action within or on the body of man or other animals and which is not dependent upon being metabolized for the achievement of any of its principal intended purposes. 21 U.S.C. §321(h).

We estimate that currently there are approximately 850 milligrams of medical radium sources (Ra-226) which medical facilities desire to dispose of in Illinois. This constitutes a significant percentage of the known NARM wastes in Illinois for which permanent disposal is planned. All of these sources were used in the diagnosis or treatment of disease in man. It appears to us that these sources are devices, under the definition of that term in applicable federal law, and are therefore exempt from TSCA's definition of chemical substances. We have discussed this issue

with representatives of the Food & Drug Administration and have been informed that our interpretation is correct.

If the Illinois NARM wastes are representative of NARM wastes throughout the country, it would appear that a very high percentage of NARM wastes for which permanent disposal would be appropriate is not within EPA's regulatory jurisdiction under TSCA. This issue was not addressed in the Overview. Before EPA issues the proposed rule, it should determine whether these NARM wastes may be regulated under TSCA. Issuance of the proposed rule without such a determination could cause a large expenditure of state and federal resources on a highly controversial rulemaking which would have little benefit to the public and the environment.

In sum, I believe that EPA has submitted to OMB a proposed rule that is technically and legally flawed. If it is formally proposed as now written, the proposed rule would cause states such as Illinois severe damage and prevent the State from fulfilling its responsibilities under the Low Level Radioactive Waste Policy Act, as amended. I strongly urge you to disapprove of EPA's proposed rule.

Very truly yours,


Terry R. Lash
Director

TRL/vh

enc.