



Department of Energy

Washington, DC 20585

January 8, 2001

Mr. William F. Kane
Director, Office of Nuclear
Materials Safety and Safeguards
Nuclear Regulatory Commission
Washington, DC 20555

Re: Questions Regarding the December 13, 2000, Decision of the Director

Dear Mr. Kane:

My staff and I have reviewed your office's Decision of the Director, dated December 13, 2000, indicating your decision not to regulate the disposal of byproduct material generated prior to 1978, including uranium mill tailings from Formerly Utilized Sites Remedial Action Program (FUSRAP) sites (referred to in the Decision of the Director as "pre-UMTRCA uranium mill tailings not covered by the Atomic Energy Act," "FUSRAP material" or "non-11e(2) byproduct material"). The Department has not evaluated the legal impacts of this decision, which would require a review by our Office of General Counsel based on referral by the NRC. We have however reviewed the decision from a waste management and long-term stewardship policy perspective and have a number of concerns and questions.

Our fundamental concerns are that the decision could significantly increase the burdens on the Department's long-term stewardship management and operations (i.e., allocation of personnel resource, time and cost for regulatory analysis and additional waste characterization). The decision could lead ultimately to dual regulation of the Department's long-term stewardship activities, which is a potentially inefficient regulatory structure that the Department has long opposed. Furthermore, this decision potentially creates significant environmental and financial liabilities for the Department of Energy and Federal Government as a whole.

The NRC's decision not to regulate this material could produce two outcomes. First, non-NRC regulated FUSRAP remediation waste material will be deposited in NRC licensed 11e(2) byproduct material disposal facilities (for which the Department will likely assume ownership and long-term stewardship responsibility under Uranium Mill Tailings Radiation Control Act Title II). Second, uranium mill tailings (some of which were generated by DOE or DOE



predecessors prior to 1978) may end up being deposited in non-NRC licensed facilities. These outcomes could increase the Department's potential liability as generator under the Comprehensive Environmental Response, Compensation, and Liability Act and could lead to inefficient dual regulation. Each scenario has potential implications for the Department's long-term stewardship liabilities and responsibilities. Please see the attached summary of these concerns (attachment A).

Also attached are a number of additional questions regarding the impact of the December 13, 2000, Decision of the Director on Department of Energy activities. The information provided to respond to these questions will better enable the Department's understanding of the potential implications of the decision on our long-term stewardship responsibilities (attachment B).

Thank you in advance for considering these issues and responding to our questions. I look forward to continuing to work with you on this important matter. Please contact me or Dave Geiser at (202) 586-9280 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Werner", written over a horizontal line.

James D. Werner
Director, Long-term Stewardship
Office of Environmental Management

cc w/attachment: John Lusher

Attachment A

Waste Management Concerns Regarding the Commission's December 13, 2000, Decision of the Director

Attachment to the January 8, 2001, Letter to NRC by the Department of Energy, Office of Long-term Stewardship

The NRC's proposed decision not to regulate the disposal of byproduct material generated prior to 1978, including uranium mill tailings from Formerly Utilized Sites Remedial Action Program (FUSRAP) sites, could produce two outcomes. First, uranium mill tailings, some of which were generated by DOE or DOE predecessors prior to 1978, may end up being deposited in non-NRC licensed facilities. Second, non-NRC regulated FUSRAP remediation waste material will be deposited in NRC licensed 11e(2) byproduct material disposal facilities (for which the Department will likely assume ownership and long-term stewardship responsibility under Uranium Mill Tailings Radiation Control Act Title II). Each of these scenarios has potential implications for the Department's long-term stewardship liabilities and responsibilities.

Disposal of Non-NRC Regulated Byproduct Material in Non-NRC Regulated Facilities Potentially Creates Significant Long-term Stewardship Environmental and Financial Liabilities for the Department Under CERCLA

The Department understands that since the Army Corps of Engineers assumed responsibility for the FUSRAP program, some uranium mill tailings from FUSRAP sites have been disposed of in Resource Conservation and Recovery Act (RCRA) regulated disposal facilities.¹ Under the current Decision of the Director this disposal practice may continue or increase. While the Department has not yet fully evaluated the legal implications of this matter, the potential waste management policy and long-term stewardship effects of the decision are clear – the disposal of byproduct material at non-NRC regulated facilities could significantly increase the potential environmental and financial long-term stewardship liability for the Department of Energy and Federal Government.

¹ As a technical matter, because of the protection provided by the Resource Conservation and Recovery Act (RCRA) in the design and monitoring of disposal cells, (e.g., double liners, leak detection, etc.), our concerns about the disposal of 11e(2) waste in RCRA regulated sites is focused more on legal liability for long-term stewardship than on relative risk. As you are aware, post-closure requirements differ depending on whether a facility is licensed by NRC/agreement state (as a radioactive waste disposal facility) or US EPA/state (as a RCRA facility). Under NRC licensing requirements a facility owner or operator must provide a technical plan and a financial surety bond to support indefinite long-term stewardship. Under RCRA, the post closure care requirements are generally limited to 30 years.

Liability under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) potentially attaches to the Department and/or Federal Government in cases where FUSRAP remediation waste is disposed of in a non-NRC regulated facility, and at some point in the future, the current owners of that facility become insolvent. Typically in cases where additional cleanup, stabilization or disposal is necessary, regulators rely on CERCLA to require that the "polluter pays." CERCLA's "joint and several" and strict liability scheme attaches to the generator of waste. As you are aware, DOE could be considered the generator of the waste as the successor organization to the Manhattan Engineering District (MED) and the Atomic Energy Commission who originally generated the waste in the 1940's and 1950's. The Department is absolutely not admitting any liability for this waste, but we are concerned that all potential consequences of this decision be considered carefully.

In March 1999 the US Army Corps and the Department signed a Memorandum of Understanding (MOU) articulating each party's roles and responsibilities regarding the transfer of FUSRAP to the Corps and the transfer and management of sites returned to DOE for long-term stewardship. The MOU does not fully contemplate the issue of creation of CERCLA liability for FUSRAP waste disposal by the Corps. However, the MOU does contain language that may be applicable in this situation. Namely, the assignment of responsibility to the Corps:

"for damages due to the fault or negligence of USACE or its contractors, and [the Corps] shall hold and save harmless DOE free from all damages arising from USACE FUSRAP activities to the extent allowable by law..."

One interpretation of this language is that the Corps will be responsible for long-term stewardship or whatever post-cleanup liabilities result from the Corps FUSRAP activities.

A second interpretation, however, is that liability under the CERCLA will attach to DOE for 11e(2) waste disposed in RCRA-licensed facilities, if in the future the current owners become insolvent and the regulators require the facilities be remediated by the generators of the waste.

Another possible implication could be that regardless of the resolution of the generator liability and successorship issues under CERCLA and the apportionment of liability under the MOU, the Administration and Congress have often assigned responsibility for nuclear cleanup to DOE. In the past, DOE has assumed responsibility for either the cleanup or the long-term stewardship of radioactively-contaminated sites, even if DOE had no statutory responsibility to remediate them. (e.g., Maywood, NJ, Wayne, NJ, and Atlas, Moab, Utah).

However, under any reading of the MOU, CERCLA liability attaches to entities of the Federal Government (or the Federal Government as a whole) for the disposal of this material. The result could be the creation of liability that may require additional financial, personnel and management resources by the Federal Government or the Department. The unfortunate effect of the Decision of the Director is the potential

creation of this type of environmental and financial long-term stewardship liability. The Department is eager to avoid any potential increase in — or uncertainty regarding — such liability.

Disposal of Non-NRC Regulated Byproduct Material in NRC Licensed 11e(2) Disposal Facilities Could Lead Ultimately to Dual Regulation of the Department's Long-term Stewardship Activities

In addition to the potential long-term stewardship environmental and financial liabilities for the Department discussed above, the disposal of non-NRC regulated byproduct material in NRC licensed 11e(2) disposal facilities could lead ultimately to dual regulation of the Departments long-term stewardship activities. Under the NRC's decision, byproduct material created/not licensed prior to 1978 may still be disposed of at NRC (or state) licensed mill tailings disposal sites. Under this scenario, the potential for that site to be regulated by more than one regulator is increased. It is entirely possible that in addition to the NRC regulation of the 11e(2) byproduct material on site, the state or US EPA may also assert a regulatory role with regard to the non-NRC regulated radioactive and hazardous chemical materials disposed of at the site. In this way, dual regulation applies not only during ongoing site operations but also may apply to the ultimate custodian of the site or portion of the site (i.e., 11e(2) disposal cell) after the current site owner terminates its license. As you know, it is anticipated that DOE will assume title and custody of most if not all byproduct material and land at NRC-licensed sites.

The Department has consistently stated that the disposal of non-NRC regulated uranium mill tailings at a NRC licensed 11e(2) disposal site is acceptable, under narrow circumstances.² First, if the non-NRC regulated material, to be disposed of at an NRC licensed cell, is essentially the same in terms of chemical and radiological properties, to the NRC regulated 11e(2) material disposed on the site.³ Second, if such disposal does not create dual regulation of the Departments activities.⁴ In light of this, the NRC began requiring that DOE, as potential long-term custodian of the site, approve the disposal of any non-11e(2) material is disposed of at an 11e(2) disposal site. However, in the absence of regulation by the NRC, the responsibility for determining whether the chemical and radiological characteristics of this material is essentially the same as 11e(2) falls squarely on the shoulders of the Department.

In addition, in the absence of NRC regulation of this material, the Department is forced to determine the intention of the US EPA and/or state to regulate the non-NRC regulated 11e(2) material deposited at a site for which the Department may assume custody. This situation may create additional litigation risks as site owners (or other parties) assert who should have regulatory authority over what type of waste. The staff time and effort

² See, Statement of James Fiore, US Department of Energy, Deputy Assistant Secretary for Environmental Management at June 17, 1999, Public Meeting on Staff Proposals for Uranium Recovery Regulatory Issues, SECY Papers 99-011, 99-012 and 99-013, transcript at 66.

³ Id.

⁴ Id.

require to determine what exactly is, or was, disposed of in an 11e(2) disposal cell would be an additional burden on the Department's existing budgetary and manpower constraints.

The possibility of dual regulation and the responsibility of characterizing this material inevitably involves additional cost, personnel, time and inconvenience that will be difficult to accomplish considering the Department's many other responsibilities. We hope that the Commission will consider these issues and questions before making a final decision on its Decision of the Director not to regulate byproduct material created prior to 1978.

Attachment B

Questions Regarding the December 13, 2000, Decision of the Director

Attachment to the January 8, 2001, Letter to NRC by the Department of Energy, Office of Long-term Stewardship

1. The Director's decision indicates that "the NRC is not aware of any significant public health and safety concern with the Corps disposition of the mill tailings from the FUSRAP sites." It is not clear whether this conclusion considered the long-term chronic impacts. As you may know, the primary hazard from byproduct material often arises from exposure to decay products such as radon or leaching of uranium into groundwater (particularly when groundwater supplies are turned acidic as a result of exposure to mining wastes). It may be that there are no demonstrated effects to date; however, the future impacts on human health and the environment remain unclear. These impacts could also lead to significant additional liabilities to the Federal Government. Also, did the Decision of the Director consider the project long-term health and environmental impacts, or merely those impacts for which the NRC had information resulting from the relatively short history of the management of this very long-lived radioactive material?
2. Under "Health and Safety Issues", the Decision of the Director notes that "[a]ccording to the Corps, the use of [Resource Conservation and Recovery Act] RCRA Subtitle C facilities in the FUSRAP program for disposal of certain kinds of radioactive wastes fosters competition, avoids capacity limitations, and minimizes schedule delays." Why are these considered "health and safety issues"? Did the NRC obtain any independent analysis of these findings? Did the NRC make an independent determination that failure to allow the use of RCRA Subtitle C facilities results in capacity limitations and causes schedule delays, and hence there was a public benefit for avoiding real, rather than imaginary problems? In addition to these potential problems (e.g., capacity limitations) did the NRC also evaluate the potential for other liabilities such as imposition of new liabilities to another agency (e.g., DOE) from long-term surveillance and maintenance requirements in the future or CERCLA liability for closed facilities?
3. It appears the decision would allow uranium mill tailings to be deposited in non-NRC regulated disposal facilities. The environmental health and safety risks in disposing of radioactive material in RCRA regulated disposal cells (versus disposal in an NRC-regulated disposal cell) may be unclear. However, the post-closure requirements differ depending on whether a facility is licensed by NRC/agreement state (as a radioactive waste disposal facility) or US EPA/state (as a RCRA facility). Under NRC licensing requirements, a facility owner or operator must provide a technical

plan and a financial surety bond to support indefinite long-term stewardship. Under RCRA, the post-closure care requirements are generally limited to 30 years. How were the differences in financial assurance needs and post-closure care requirements under both regulatory schemes considered?

4. What are the programmatic impacts of this decision? Has the NRC prepared an inventory of the waste that would be excluded from NRC regulation under this order (number of sites, location, volume, radioactivity)? Where are the sites located that contain material covered by this decision? Where would the pre-1978 byproduct material, not regulated by NRC, be disposed? Is there currently adequate safe disposal capacity in the U.S. or could it be developed in a timely manner?
5. Under the Decision, NRC will assert regulatory authority over the non-NRC regulated material deposited at an 11e(2) licensed disposal site to the extent that such material adversely affects NRC's ability to regulate the licensed portion of the site. Are there any additional circumstances in which NRC may assert regulatory authority over this material (i.e., threats to environment, safety and health of workers or surrounding communities)?
6. Has the Commission considered other regulatory options, including a limited assertion of authority over this material that may not increase the Department's liability exposure and program resource demands as significantly as the current Decision of the Director?
7. The Decision of the Director concludes that "State and EPA regulatory authorities are up to the task of regulating the safe disposal of FUSRAP material." Did NRC also determine the intention of the US EPA, or state, to assert regulatory authority over the non-NRC regulated 11e(2) material disposed of at a NRC- (or state-) regulated disposal site?
8. How can the Department be assured that the FUSRAP remediation waste material deposited at NRC-regulated 11e(2) disposal facilities is essentially the same as 11e(2) (for purposes of understanding the Department's potential for dual regulation at a site for which it may assume custody and title)?
9. As you are aware, the Nuclear Waste Policy Act section 151(b) gives the Department discretionary authority to assume title and custody of sites licensed by the NRC as low-level waste disposal sites after license termination – provided that the NRC determine that requirements for site closure, decommissioning and decontamination have been met, financial assurance requirements have been met, and that the title and custody will be transferred to DOE without cost to the Federal Government and that such transfer is necessary to protect public health and the environment. Could this Decision of the Director encourage the creation of additional low-level waste disposal sites or in any way lead to an increase in the number of sites that may be eligible under this provision?

10. The Government Management Reform Act of 1994 requires that each cabinet level Department prepare an annual audited financial statement, including assets and liabilities. Has the NRC forwarded, or does it intend to forward, the Decision of the Director to the Office of Management and Budget for a review of the potential impacts on, and creation of, potential future federal government liabilities?