

57

AmerenUE  
Callaway Plant

Garry L. Randolph  
Vice President and  
Chief Nuclear Officer

PO Box 620  
Fulton, MO 65251  
573.676.8245  
573.676.4056 fax

DOCKETED  
10/21/99

'99 NOV 22 P 3:43

November 15, 1999

OFFICE  
ADMINISTRATIVE

Secretary  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555  
Attention: Rulemaking and Adjudications staff

DOCKET NUMBER  
PROPOSED RULE PR 20  
(64FR35090)



**RELEASE OF SOLID MATERIALS AT LICENSED FACILITIES**

Ref: F.R. 6/30/99 Volume 64, Number 125

The referenced Federal Register notice contains a Nuclear Regulatory Commission Issues Paper on the Release of Solid Materials at Licensed Facilities and a Request for comments on the issues paper, scoping process and notice of plans for public meetings. AmerenUE applauds the Commission's efforts to establish a regulatory framework for the release of solid materials from nuclear facilities consistent with the existing framework for liquids and gases.

The following constitutes AmerenUE comments on the subject and are directed mainly at regulation of nuclear power plants.

1. AmerenUE fully supports a rulemaking that would set specific requirements for release of solid materials. The goal should be to maintain consistency with the dose-based limits on air and water releases contained in 10 CFR 20. While you correctly state there are currently no specific regulatory requirements for release of solid materials, there has been a de facto requirement to treat solid materials as radioactive waste if any activity is detected above environmental levels or to request specific NRC approval under 10 CFR 20.2002 requiring a case-by-case NRC review and evaluation of the situation. This is not reasonable given the regulatory requirements levied on air and water releases.
2. Of the options listed under III.A.2.2, we prefer option (1) Permit release of solid materials for unrestricted use if the potential doses to the public from unrestricted use of the material were less than a specified level determined during the rulemaking process. For the Nuclear Power industry, that level should be developed to maintain consistency with air and water release limits specified in 10 CFR 20 and the EPA fuel cycle dose limit contained in 40 CFR 190. Other options would entail undue administrative burdens not justified by the level of public risk.

PD R PR 20 64FR 35090  
a subsidiary of Ameren Corporation

DS10

- 3. Issue No. 1 – The NRC should address inconsistency in its release standards by proceeding with rulemaking to develop dose-based regulations limiting releases of solid materials. These requirements should be contained in Part 20 as part of a consistent regulatory framework. The current framework of approving release of solid material on a case-by-case basis is burdensome from a regulatory standpoint without adding any additional public safety. Cutting down on these submittals would surely improve NRC efficiency and steer NRC efforts in directions where the impact on public safety may be greater. Considering the increase in plant decommissioning in the future and the uncertainty surrounding availability of low-level waste disposal, we believe NRC will experience a substantial increase in such requests in the future. Because of this, we believe future savings would offset the resources spent on rulemaking.**

We believe restrictions on the type of material and the use of that material would entail undue administrative burdens not justified by the level of public risk. If a dose-based regulation is established, the type of material and material use would be inherently taken into account in the dose analysis required to provide assurance of meeting the dose-based standard.

- 4. Issue No. 2 – We believe NRC presents a good discussion of alternatives in the issue paper. However, we believe a dose-based standard consistent with standards for air and water contained in Part 20 is the most desirable alternative. Factors that should be considered in deciding on a course of action would be consistency with air and water regulations, ease of enforcement and implementation (i.e. low regulatory burden), and public safety.**

Of the alternatives presented, Alternative 1 – permit the release of materials for unrestricted use if the potential dose is less than the level determined during the rulemaking process - is the most desirable by far. This alternative has the greatest potential for reducing regulatory burden, maintains consistency with the current regulatory framework and maximizes public safety. Of those choices listed, we believe a standard between 10 mrem/yr and 100 mrem/yr provides the most consistency with current regulations, while still providing for public safety.

Restricting the release of solid materials to certain uses increases the regulatory burden by requiring assurance that unauthorized uses do not occur. This alternative does not maximize public safety since one cannot be assured that unauthorized uses will not occur. One simplifying subset of this alternative is requiring disposal in a solid waste landfill. This would be an acceptable alternative to us if recycle options prove to be too burdensome.

Restricting release of all material envisioned by Alternative 3, even if it is found to be nondetectable, increases regulatory burden and depletes limited low-level waste disposal space unnecessarily.

November 15, 1999

Environmental impacts should be balanced using risk analysis as much as possible. Some decisions will still need to be subjective because a risk basis for some impacts is not well developed. All identified impacts, both radiological and non-radiological, should be considered in decisionmaking. Financial impacts should be compared against the societal good that would otherwise be possible if funds were not expended on the insignificant risk resulting from this rulemaking. Funds expended are funds diverted from some other public good (i.e. hospitals, medical research for illness such as cancer and aids, hunger, etc.). We must realize only limited resources are available and these should be used for the greatest societal benefit. Irrational fear should not be considered a negative societal impact in decisionmaking. Instead, the public needs to be educated. We must stop making decisions based on irrational fear. Instead, a rational scientific approach is necessary if we ever hope to use our resources for the greater public good.

Buildup of radioactivity in commerce over time (Discussion Item B5) must certainly be addressed in the EIS. If conservative estimates prove too uncertain for total recycle, then materials could be restricted to landfills.

Regarding survey capabilities (Discussion Item C1), nuclear power plants currently measure to environmental levels to assure contaminated material is not released as clean. Since these measurements assume inherent monitoring sensitivities, current guidance for survey monitoring sensitivity should remain constant. As a side note, some limiting values of residual surface contamination developed in NUREG-1640 are below this guidance because of overly conservative analyses. A probabilistic based approach should be adopted when calculating realistic dose scenarios. This coupled with a realistic dose-based standard based on protection of public health and safety rather than a "as low as possible" standard should help eliminate this inconsistency. Risks routinely assumed by the population from variations in natural background would lead one to believe that doses on the order of 10-100 mrem are well within the range of acceptability.

As to what criteria to be incorporated into the regulations (Discussion Item C3), it may be more practical to provide a dose criteria in NRC regulations rather than derived concentration limits. Because of the wide variety of conditions likely to be encountered by different licensees, derived concentrations are likely to be overly conservative in order to encompass all possible scenarios. Instead a dose criteria with NRC approved models where parameters could be modified to fit real conditions may be a more practical solution.

Under Discussion Item D, compatibility with international standards is desirable for materials likely to flow from country to country. Consistency with other U.S. Standard Setting bodies and industry standards should be a goal of the process as it relates to the public risk. For the nuclear power industry, compliance with

EPA's 10 CFR 190 limits for the nuclear fuel cycle would presumably apply to any NRC solid waste clearance regulation.

5. Issue No. 3 – Restricting use of material to certain authorized uses introduces too many uncertainties making compliance and enforcement difficult. Restricting the release of solid materials to landfills would be acceptable to us should total recycle prove too burdensome. Dose can be easily determined from solid waste landfills and LLW burial space could be preserved for higher activity waste. Public acceptance would be increased and uncertainty of end use would be minimized making risk quantification easier. Restricting waste to solid waste landfills would limit public exposure scenarios, further protect public health and safety and preserve existing LLW disposal capacity.

Other restrictions on the use of material appear to be too burdensome from a compliance and enforcement standpoint.

6. Issue No. 4 – We believe the NRC should proceed with a rulemaking covering all materials with restrictions, as needed, on the disposal of certain materials. We believe a dose-based standard should be developed independent of the material type and models provided for calculating that dose on a case specific basis.

AmerenUE appreciates the opportunity to comment on the Issues Paper on Release of Solid Materials at Licensed Facilities. If you have questions concerning these comments, please contact Neal Slaten at (314) 554-2855.

Sincerely,

  
Garry L. Randolph

NGS/mlo

cc: R. R. Roselius  
J. V. Kerrigan  
A. C. Passwater  
N. G. Slaten