STAND

December 22, 1999

Secretary
U.S. Nuclear Regulatory Commission
Attention: Rulemaking and Adjudications staff.
11555 Rockville Pike
Rockville Maryland 301-415-1101

Dear NRC Rulemaking and Adjudications staff:

These are Serious Texans Against Nuclear Dumping's (STAND, Inc) comments on the Nuclear Regulatory Commission's request for comment on issues paper and scoping process regarding *Release of Solid Materials at Licensed Facilities: Issues Paper, Scoping Process for Environmental Issues, and Notice of Public Meetings,* announced in the June 30, 1999 Federal Register.

Although the notice refers consistently to "solid materials," what is really at stake is radioactive materials and whether or not they should be released to the public for unrestricted use in consumer markets or disposed in poorly regulated landfills. In making this ruling, it appears that the NRC is considering the needs what it treats as its "customers," the nuclear utilities and major radioactive waste generators that it is supposed to regulate; rather than following its mandate to protect public health and safety by keeping radiation exposure as low as reasonably achievable.

Instead, the Commission appears to be on a track to propose a radiation-dose based rule that would inevitably be subject to abuse and fraud, that would provide no recourse for injured parties, and would essentially socialize financial liabilities held by radioactive waste generators. While no decision has been made, it appears to be already biased, since the Commission admits that it directed its staff in June, 1998 to consider a rule for a dose-based release standard.

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STAND is opposed to any NRC rule that would make it easier to release radioactive materials that NRC calls "solid materials" into consumer markets or to general landfills, for the following reasons:

- Once Released, Solid Materials Cannot Be Monitored, and the NRC has a poor track record of protecting public health and safety in its regulation and monitoring of sealed radioactive sources;
- NRC only offers alternatives that are based on estimated radiation doses, instead of considering "As Low As Reasonably Achievable (ALARA)" radiation protection rules. Potential doses cannot be determined because the end use of the product is unknown.
- Allowing disposal in general landfills will encourage poor landfill operators to submit low bids for handling radioactive materials.
- There is no market demand for recycled radioactive materials, only proposals to create a supply;
- The NRC failed to explicitly define the implications of such a rule, and as such this process can only be viewed as a reincarnation of its rejected "Below Regulatory Concern" proposal of the early 1990's. Furthermore, the NRC, in its issues paper, failed to analyze recent experience in this field, liability as an issue, and the range of materials at stake except in generalities.

Need for Alternatives based on ALARA, not Doses

NRC only offers alternatives that are based on estimated radiation doses, instead of considering "As Low As Reasonably Achievable (ALARA)" radiation protection rules. While ALARA is generally a work-place safety philosophy, in this case it would require the NRC to greatly restrict the flow of radioactive materials into the consumer market that would otherwise be labeled as radioactive waste. Since background radiation in the form of cosmic rays is known to cause skin cancer, and radon gas is known to cause lung cancer, any argument that additional "doses" are acceptable relative to "background" radiation levels is akin to telling a four-pack-a-day smoker that another cigarette is ok.

In this notice, while the NRC claimed it was "enhancing public participation," but it only offered three alternatives for public consideration:

"(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. Unrestricted use could result in recycle or reuse of the material in consumer products or industrial products, or disposal of the material as waste in landfills."

The NRC should have been more up-front and explicit about how "potential doses" could be determined. Once on the market, radioactive metals could end up in any number of consumer products. Radioactive stainless steel could end up being unwittingly used by orthodontists as braces. Will "potential" include the harm that could result from a child wearing radioactive metal on their teeth for a few years? Since there is so much controversy over how much radiation is harmful, will the dose limit be determined by the radiation levels of the waste?

"(2) Restrict release of solid materials to only certain authorized uses. For example, future use of the material could be restricted to only certain industrial uses where the potential for public exposure is small."

This proposal is equally unacceptable. There is no way that future use can be restricted once the materials are out in the market.

(3) Do not permit either unrestricted or restricted release of solid material that has been in an area where radioactive material has been used or stored, and instead require all such materials to go to a licensed low-level waste (LLW) disposal facility."

This may be the most acceptable of the alternatives, but it does create the possibility that non-radioactive materials will be sent through the expensive radioactive waste storage/disposal process. However, this does mean that if an error is to be made, it is made on the side of caution, not on the side of profit.

Once Released, Solid Materials Cannot Be Monitored

The issues raised in this Federal Register notice indicate that, to use a cliche, the Nuclear Regulatory Commission is on a very slippery slope. The NRC claims that it is considering formulating a rule that would "provide consistency in its regulatory framework for releases of all materials...that would set specific requirements for release of solid materials." The consistency that the NRC seeks is to keep "solid materials" in a "regulatory framework more consistent with existing NRC requirements on air and liquid releases."

From the outset, the Commission is operating from a poor assumption, that "solid materials" should be regulated in a manner consistent with how the Commission regulates releases of gaseous emissions and liquid effluents. This approach is unacceptable, because the gaseous emissions and liquid effluents that the NRC calls "air and liquid releases" are point-sources that can be monitored and regulated without major complications.

In contrast, the release of "solid materials" to the consumer market, as NRC is essentially considering and currently allows on a "case-by-case" basis, is not easily regulated or monitored. The Commission, along with the rest of the nuclear industry, already has a long track record of failing to adequately regulate and monitor radioactive sealed sources. The inability to monitor the sealed sources has had a major negative economic impact in this country.

For example, one result of improper regulation and monitoring of sealed sources, in March 1997 the Commission issued a notice of a *final staff technical position* regarding "Disposition of Cesium-137 Contaminated Emission Control Dust and Other Incident-Related Material."[1] The technical position addressed a crisis in the U.S. steel industry, the inadvertent melting of Cesium-137 radioactive sealed sources during recycling activities in steel mills, a decades old trend that has produced approximately 10,000 tons of radioactive waste that was classified as mixed-low-level waste and being stored at the mills.

The steel industry itself has stated that:

"Over the years, however, NRC has been largely unresponsive to the radioactive scrap problem and to our requests for a more stringent regulatory regime. Recently, however, the NRC staff has taken positive, although small, steps to minimize the risks associated with improper disposal of spent sources in the scrap supply, in response to directives in the Commission's Staff Requirements Memorandum.(3) The NRC staff has not yet fulfilled all of the requirements."

"If a steel mill inadvertently melts a radioactive source, it can incur $10 - 24 million dollars in unanticipated costs for decontamination, disposal of contaminated materials, and lost production time. The cost can bankrupt a small or medium sized minimill."[2]

To add insult to injury, because of the NRC's final staff technical position of March 1997, at least some of the radioactive waste generated by inadvertent melting is being disposed of under the hazardous waste disposal permit held by Waste Control Specialists in Andrews County Texas. This is being allowed because the State of Texas exempted this material from radioactive waste disposal rules.

Thus, a company that is willing to low-ball the competition and is able to change State regulations has a competitive advantage to add more dangerous waste streams under a permit that would be more stringently enforced in states with tougher regulators.

By considering a rule to release more radioactive materials into the recycling stream, while also failing to incorporate the lessons from the sorry history of sealed-source monitoring and regulation, the Commission would be writing a prescription not only for adverse public health effects, but adverse economic impacts on unwitting industries. The fact is, there is no demand for radioactively contaminated scrap metal, only companies and a government that is attempting to create a supply in order to avoid disposal costs.

NRC Failed to Define Terms or Describe Its Experience

In the Federal Register notice, the Commission failed to provide sufficient details and hard definitions within its proposals. For example, the terms "solid materials" is never really defined, only described. It appears that the Commission is mixing materials across a wide spectrum, ranging from materials that may have further value to consumers--couches, water coolers, etc--to materials that are essentially radioactive waste that radioactive waste generators are seeking to dump onto the consumer market to avoid the cost of low-level radioactive waste disposal.

By doing so, the Commission created the impression that some materials are so safe for release that a rule would be easy. Instead, the Commission should focus on the materials that have been released in the past that should not have been released. The Commission repeatedly cited its "case-by-case" experience, but never provided any good examples of this experience. What problems have been encountered?

For example, the Commission wrote that "*for some situations, the NRC allows release of volumetrically contaminated solid material if survey instrumentation does not detect radioactivity levels above background,*" but did not define why the material was even being released or the need to release that material.

The NRC failed to explicitly define the implications of such a rule, and as such this process can only be viewed as a reincarnation of its rejected "Below Regulatory Concern" proposal of the early 1990's, instead of a proposal to streamline the regulatory process.

The issue also seems to be restricted to a small subset of NRC licensees, the companies operating nuclear facilities, and is based on normal operating experience rather than violations in procedures and/or accidents. In the notice, the Commission wrote that materials could derive from "*clean or unaffected areas of a facility--The solid material in these areas would likely have no radioactive contamination resulting from licensed activities....areas where licensed radioactive material is used or stored--the material in these areas can become contaminated although the levels may likely be very low, or it may have none, because of contamination control procedures required at facilities licensed by the NRC.*"

NRC should identify why these areas are at issue. If these areas are not supposed to be contaminated, yet contamination is found, is it the result of a failure to follow license procedures, or an accident? If a company was not following best practices, why does the NRC believe it will conduct ethical reviews of its potentially contaminated waste?

The real issue seems to be "material used for radioactive service in the facility, or located in contaminated areas or in areas where activation can occur--These materials generally have levels of contamination that would not allow them to be candidates for release unless they are decontaminated."

It appears, although NRC was not explicit, that this is the primary waste stream at risk. The NRC should better describe these materials in an explicit manner, rather than in generalities.

Other Issues and Questions:

1. The Commission wrote that, "*EPA is currently active in the development of screening guidelines for import into the U.S. of materials cleared in other countries. EPA has been working with the NRC and other Federal and international agencies. The importing of contaminated materials cleared by other countries into the U.S., which does not have in place generally applicable standards for this purpose, raises questions about the regulatory status of these materials after they enter the U.S.*"

The fact that other countries may be exporting their radioactive waste to the U.S. should not be a cause for the U.S. to adopt their standards.

2. The Commission wrote that: "The U.S. Department of Energy operates a number of nuclear facilities. Although generally not licensed by the NRC, the DOE faces issues concerning the

disposition of materials from its facilities similar to those faced by NRC licensees."

The Department of Energy commonly releases materials into the public realm that should have been kept as waste. DOE does not set an example that anyone should follow.

3. *Should the NRC Address Inconsistency in its Release Standards by Considering Rulemaking on Release of Solid Materials?*

As stated above, the answer is no.

4. *Should the NRC continue with the current practice of making decisions on a case-by-case basis, or should it proceed to develop a proposed rule that would establish generic criteria for release of solid materials? What are the considerations that should go into making this a decision?*

The public cannot adequately answer this question because the NRC has not provided enough information and details about the case-by-case basis. How many requests does the NRC receive per year? How much material has it released? What problems have occurred?

5. *Should the NRC develop dose-based regulations on release of solid material?*

No.

6. *To what extent would such a rule contribute to maintaining public safety, enhancing the effectiveness and efficiency of the NRC, building public confidence, and reducing unnecessary regulatory burden?*

What unnecessary regulatory burden currently exists?

Thank you for accepting these comments.

Sincerely;

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1. March 19, 1997 Federal Register. Volume 62, Number 53, Pages 13176-13198.

2. April 16, 1999 Statement of the Steel Manufacturers Association regarding the Staff Draft Proposed Rule - Requirements for Certain Generally Licensed Industrial Devices Containing Byproduct Material, before the United States Nuclear Regulatory Commission. http://www.steelnet.org/new/nrcapril.html