DOCKET NUMBER
PROPOSED RULE PR 71
(67FR21390)

(22)

DOCKETED
USNRC

July 29, 2002 (5:22PM))

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

Comments of
Nuclear Information and Resource Service
1424 16th Street NW Suite 404
Washington, DC 20036
202 328-0002; 202 462-2183 fax
www.nirs.org

Comments to the United States Department of Transportation (DOT)
Research and Special Programs Administration (RSPA)
67 FR 83:21328-21388 4/30/2002
Docket No. RSPA-99-6283 (HM-230)
Hazardous Materials Regulations;
Compatibility with the Regulations of the International Atomic Energy Agency

Comments to the US Nuclear Regulatory Commission (NRC) 10 CFR 71
67 FR 21390-21484 4/30/2002
RIN 3150-AG71
Compatibility With IAEA Transportation Safety Standards (TS-R-1) and Other Transportation Safety Amendments

July 29, 2002

The United States Department of Transportation (DOT) and Nuclear Regulatory Commission (NRC) are proposing to weaken radioactive transport regulations at a time of potential massive increases in nuclear waste shipments and the threats of deliberate terrorist attacks on shipments and use of radioactive materials for "dirty bombs."

Both agencies have stated that they will not address the **issues that have arisen since September 11, 2001** as part of this rulemaking despite the obvious need. NRC is proposing 19 changes[1] and DOT is proposing 10 changes[2], many of which should be fully evaluated in light of September 11th and heightened security.

In this rulemaking, neither DOT nor NRC is considering the **enormous expected increase in the number of shipments**[3] in this country. These rule changes will inevitably affect those shipments and the thousands of communities through which they will pass in the decades to come. In fact DOT and NRC are satisfied to use twenty year old data to justify "updated" rule changes, some of which reduce public safety. We argue that the real world situation and updated data must be used to estimate the impacts of the rule change. More current data and future projections including the expected increases in actual nuclear shipments must be utilized.

---

[1] 11 of NRC's 19 issues were initiated by the International Atomic Energy Agency (IAEA)
[2] All of DOT's 10 issues are from IAEA
[3] Exponential increase in numbers of shipments could result from possible centralization of irradiated fuel from nuclear power reactors, from Department of Energy plutonium shipments to WIPP (Waste Isolation Pilot Plant in New Mexico) and to other DOE facilities such as Savannah River Site and from possible plutonium shipments for production of Mixed (plutonium and uranium) OXide fuel (MOX).

Template =SECY-067

SECY-02

Rather than address and improve the inadequacy of existing design requirements for irradiated fuel containers in this rulemaking, the US Nuclear Regulatory Commission is carrying out a separate Package Performance Study, but that appears to be delayed, thus unavailable to instruct this rulemaking. That study and real cask tests should be done first and the results incorporated into this rulemaking. This rulemaking, especially the changes proposed for irradiated fuel transport, can wait. When taken up, should focus on improving the existing inadequate requirements rather than further relaxing them.

We oppose the weakening of existing standards, the failure to strengthen existing deficiencies, and failure to fully evaluate the risks in light of the enormous increases in various types of radioactive shipments that can be expected in the near future.

Repeated Extension Request:

The proposed rule is highly technical and complex. Extra comment time is warranted.

The content of the rule making is extensive. This was illustrated at the public meetings on this rulemaking, by the inability of some full time NRC staff working on aspects of the rulemaking to explain anything other than their specific issues. Members of the public with legitimate concerns and interests should be afforded more time to learn about and give input on this rulemaking.

For example, at none of the NRC public meetings could anyone succinctly describe the Q system and how A1 and A2 values are calculated. Yet this is the sole support for removing half the existing protection from plutonium shipments (moving from double to single containers).

Not one NRC staff-person and only one DOT staff person could begin to defend the exemption values in the Exemption Tables. That justification appears to boil down to trusting unavailable (or time-consuming, difficult and expensive-to-acquire) reports and unaccountable committees and commissions (very possibly with conflicts of interest) that have supposedly reviewed the numbers and risks.

Staff with specialized knowledge of each of the many items understand their area, but not the full scope of the rulemaking. Yet the public has had just 90 days to learn of, obtain, read, digest, evaluate and comment on the entire set of regulations and proposed changes for both the US DOT and US NRC.

Adequate preparation to comment has involved significant document accumulation, professional assistance in learning the existing regulations and procedures, learning the procedures for changes internationally, review of both international and industry-initiated changes, the division of responsibility between the US NRC and DOT, the real world capabilities to enforce existing and proposed changes. A four to six-month extension would enable interested parties to meaningfully participate.

Misleading Analysis for Exemptions

Complicating the rulemaking further, there appears to be an element of deception in the provisions allowing for Exemptions of radioactive materials from regulatory control.

The issue has had a long history of vehement opposition in the United States yet the NRC and DOT are attempting to bury the adoption of volumetric release standards in this massive and complex rulemaking.

Look at the history in the US:

There was a government effort in the early 1980's to release and "recycle" radioactively contaminated metals into daily commerce which was swiftly and decisively defeated.

There were NRC attempts in 1986 and 1990 to legalize the practice by adopting Below Regulatory Concern –BRC- policies (allowing some radioactive waste, materials, emissions and practices to go unregulated). Congress revoked these policies in 1992 as part of the Energy Policy Act and reaffirmed states' rights to protect their citizens more stringently than the federal government.

In the 1990's the US Environmental Protection Agency explored the idea of setting standards for the "release," and "recycling" of radioactively contaminated scrap metal but decided not to waste the resources.

The US NRC in the June 1999 again attempted to do a comprehensive rulemaking that would "allow[s] quantities of materials to be released," at "levels above background," that would "apply to all metals, equipment, and materials, including soil." Again the public said, "No," refusing to participate in the enhanced participatory rulemaking designed to choose a level rather than prohibit release. This NRC rulemaking is proceeding despite that opposition. NRC hired the National Academy of Sciences to draft a rule that the public would accept. The NAS Committee did not give them a green light for this rulemaking, but the NRC will announce its plans on proceeding in a few weeks (late August 2002).

The Department of Energy nuclear weapons complex has been releasing some radioactive materials into commerce and to commercial processors for release. In the year 2000, however, DOE halted the release of 1) volumetrically contaminated radioactive metals and 2) any metal for recycling from Department of Energy radiological control areas. DOE is now performing a Programmatic Environmental Impact Statement.

The point is that no legal levels exist in the US for releasing radioactive wastes and materials into daily commerce despite years of industry and pro-industry regulators' efforts. DOT and NRC simply cannot expect to adopt exemption levels into the transportation regulations as if they play no role in one of the most contested practices of the nuclear power and weapons industries. Furthermore, the redefinition of Low Specific

Activity LSA-1 category appears to facilitate grossly relaxed transport controls and deregulation of decommissioning wastes. This is completely unacceptable.

Surface and Volumetric Contamination:

Some industries and "regulators" have been misusing the Atomic Energy Commission's 1974 Regulatory Guidance document, Reg. Guide 1.86, (intended for cleaning a radioactive structure, not allowing radioactive waste into daily intimate human contact) as legal "surface contamination" levels. They have been using the surface contamination levels in that guidance, to justify the deliberate introduction of some radioactively contaminated soil, concrete, asphalt, aluminum, metals, chemicals, plastics, wood and other structural materials into the unregulated open marketplace. To release materials that are contaminated throughout (volumetrically contaminated), they have had to extrapolate and make even more assumptions about the material, the radioactivity and its destinations. DOT and NRC would be providing legal volumetric release levels for nuclear waste generators if the Exempt Concentration Table is adopted.[4]

No public or environmental dose analysis has been done for all of the releases from regulatory control in this rule making, perhaps because the total amount of radioactive material to be released over time is simply unknown.

The public is resisting the efforts of the nuclear waste generators and regulators to legalize and increase the radioactive materials "released" for reuse, recycling or unregulated disposal. And the metals industries are investing their own resources to monitor and reject any incoming contaminated materials.

DOT and NRC worked with international agencies to thwart public opposition:

The Department of Transportation and Nuclear Regulatory Commission now enter the scene with completely unjustified levels for the release of volumetrically contaminated materials and exemption of varying quantities of every radionuclide. Relaxed "Low Specific Activity" and "contamination" definitions appear enabling higher contamination to be transported with less protection just in time for decommissioning of massive nuclear complexes. Despite the claim by NRC and DOT that the Exemptions are not significant or unimportant, they are in essence, the legalization of nuclear power and weapons waste into our daily lives.

Especially in light of the fact that most transportation regulations preempt state and local laws and regulations, local communities should have the opportunity to review and comment.

Political Concern:

[4] It is true that the existing 70 bq/g exempt concentration is a volumetric value. That exemption level should be reassessed and in no case increased.

We oppose the process that has evolved for the United States' development of new radioactive transportation standards through the United Nations International Atomic Energy Agency (IAEA). The process is not democratic. The documents are not easily or freely available. The deliberations and negotiations are neither widely noticed nor easily accessible to the general public. We question whether the "experts" on the committees and commissions that developed the recommended regulatory changes meet the Federal Advisory Committee Act (FACA) requirements and whether the meetings were in compliance with FACA, the Sunshine Act and the Open Meetings Act. The committees that developed the proposed rule (TS-R-1 and its predecessors) appear to have violated the open meetings, full disclosure and balance requirements of the Federal Advisory Committee Act. We suggest the NRC and DOT drastically improve their communication with the public on radioactive transport regulation development. We call for all ongoing and future proceedings to be publicly noticed, open to the American public and comply with all provisions of US law.

The International Atomic Energy Agency, chartered as a promoter of nuclear industry technology around the world, developed the recommendations without general public knowledge or input. The regulations were transferred to other UN agencies, the International Civil Aviation Organization (ICAO) and International Maritime Organization (IMO). IAEA and these Organizations have agreements and routines for accepting IAEA's rules into the UN Recommendations which member nations are obliged to adopt for international regulatory "harmony."

"Harmonization" (international conformity) is a poor excuse for accepting the nuclear power industry's desires to weaken nuclear transport regulations; yet this is the primary justification given in both the NRC and DOT proposed rules for accepting changes that weaken protections.

Technical Concerns:

Old data, lack of data, reliance on ICRP, reliance on computer model scenarios that may not be realistic to project doses, no calculations for more than 350 radionuclides...

Reliance is placed on unchallenged assumptions from the International Commission on Radiological Protection (ICRP) on the risk of each of hundreds of radionuclides being released from regulatory control and treated as if they are not radioactive.

ICRP does not represent the full spectrum of scientific opinion on radiation and health. It is especially lacking in scientists who understand first-hand that low dose radiation can be more harmful than previously thought and those that believe that health effects can be greater, per unit dose, at low doses, than at high doses. Even though ICRP's most current risk estimates are used in this rulemaking, they do not take into consideration important information on the health impacts of radiation such as
A) synergism with other contaminants in the environment including other radiation exposures;

B) the bystander effect, in which cells that are near cells that are hit but are not themselves hit by ionizing radiation exhibit effects of the exposure. Other organizations are now formed to independently assess various aspects of radiation and health, so ICRP can be questioned and challenged;
C) the impacts on children, the developing fetus and those with reduced immunity.

The realism of the exposure models used to justify certain exposure scenarios is inadequate. Transport scenarios reportedly have been evaluated for only 20 of over 380 listed radionuclides and the average projected doses do not adequately reflect the full range of exposures and from the exempted radionuclide amounts and concentrations. The averaging is unacceptable.[5]

The responsible agencies have not developed or pursued plausible exposure scenarios to justify exemption levels for every isotope. No actual exposure scenarios have validated the models used to make estimates. There is no proof that there will be no effect from increasing exempt levels and from exempting entire consignment quantities. If the allowable limit increases, the allowable dose also increases. There is no justification for raising radionuclide levels that have been lower. The claim that the risk is as high as previously assumed may be based on newer science, but the risk is still increasing if the level goes up. Better science (the new bio-kinetic assumptions that ICRP used to change the risk factors and that IAEA used to change the basic radionuclide values) doesn't necessarily mean better protection of the public from ionizing radiation and radiation risks.

The DOT and NRC are the regulatory agencies charged with protecting the public from radioactive materials and radiation during nuclear transportation. Hopefully, we can rest assured that regulated nuclear shipments are more protective than unregulated ones.

The public has an expectation that our regulators will maintain or provide greater health protection in its rulemaking, with a goal of preventing exposure to hazards such as radioactive materials. As rules change, ideally, from the public perspective, the regulators should be improving public protection and striving to reduce and eliminate risks from radioactive materials.

Scientific evidence continues to indicate that ionizing radiation is riskier that previously known. Based on that information, there is no justification for increasing the amounts to which the public could be involuntarily and unknowingly exposed.

But, to repeat, better science does not necessarily mean better protection, if it is used to justify more exposure. The International Commission on Radiological Protection (ICRP)

[5] IAEA asserts that a one millirem per (10 microsieverts) per year dose is an acceptable risk for deregulating radioactive materials however, the calculated doses from some of the exempt concentrations and quantities are much higher than that. The average dose for 20 radionuclides is reported to be 23 millirems per year and these calculations are used to justify the exemption of hundreds of others. Furthermore, millirems and microsieverts per year cannot be measured, verified or enforced. Thus the dose-criteria are used as mechanisms to permit highly variable amounts of radioactivity to be deregulated rather to truly protect public health and limit exposures.

may updated the bio-kinetic models for radionuclide behavior and concentration in the body but a lot was left out. NIRS has concerns with some of the assumptions involved in the reevaluation of risk from each radionuclide, but that is only one issue here. (For example, the models fail to account for the bystander effect. They are based on theory more than actual human evidence.) The main goal is to maintain and improve public health protection, not reduce it. According to the supposedly improved science in ICRP-60. risk values for various radionuclides change. This does not mean that people should be exposed to more radiation to reach the risk now calculated was permissible at the 70 Bq level. But that is the logic used to justify increasing exempt radionuclide concentrations.

The stated motive for changing the transportation regulations, including adopting the Radioactivity Exemption Tables is to 1) facilitate nuclear transportation and 2) harmonize international standards. Neither of these objectives should supercede protecting public health and safety nor do they justify reducing existing protections. The technically significant motive for adopting exemption values is to facilitate radioactive "release" and "recycling" or dispersal of nuclear waste into daily commerce and household items. More discussion is needed of the two main purposes of the rule change.

Society does not necessarily benefit but maximum radionuclide transport. In fact the opposite is likely true. Harmonized standards are not completely necessary especially if they require the US (or any nation) to reduce their levels of protection and increase their risks and exposures to ionizing radioactivity.

We oppose this action and the motive.

These comments address some of the proposed changes. Silence should not be interpreted as agreement with the unaddressed issues.

We specifically oppose:

1-Legalizing the exemption of varying amounts of radionuclides from transportation regulatory control (raising allowable exempt concentrations for majority of radionuclides and allowing exempt quantities of radioactive materials in transit, not permitted before). (NRC issue #2 and DOT issue #1 Radionuclide Exemption Values.)

2- Changes to Low Specific Activity and Surface Contaminated Object categories which will allow higher (radio)activity or hazard wastes to be shipped in less tough containers. A possible result and suspected motivation for this change would be to allow transportation of radioactive rubble, soil, debris, or tailings from nuclear decommissioning to be shipped unpackaged, possibly to an unlicensed facility. Radioactive materials that are up to 30 times (the already objectionable) exempt concentration levels (210 times current exempt concentrations) could be shipped without containers. (DOT issue # 5 Low Specific Activity and Surface Contaminated Objects, NRC issue #12 Special package approvals)

3- Allowing certificate holders for Dual Purpose Containers (irradiated fuel casks used for both storage and transport, Type B(DP)) "to make certain changes to a ... cask's design or procedures ...and to conduct tests and experiments, without prior NRC review and approval." (NRC issue #15 Change Authority)

4-Removing the US requirement that plutonium be shipped in double shelled containers and weakening other design requirements for plutonium and other fissionable materials containers. (NRC issue #17 Double Containment of Plutonium)

5- Allowing greater contamination on surfaces of irradiated fuel and high level radioactive waste containers. (NRC says it will not adopt this change and we support NRC in refusing to do so.) (NRC issue #18 Contamination Limits)

6- Inadequate design criteria for irradiated fuel shipments. Although the Deep Immersion requirement (NRC issue # 7) would cover more containers as a result of this rule change, it still only requires one hour withstanding deep water pressure. That is clearly not enough time to find and remove the container if it were submerged in deep waters during real transport. Our opposition here is to maintaining an inadequate design requirement despite a major revision of the transport regulations. In addition, the depth of water through which some Yucca Mountain barge shipments could travel is deeper than the design criteria. The fire, drop and other criteria, which are not being strengthened or expanded in this rulemaking are already inadequate to meet possible real world conditions and should be made more realistic and more stringent.

7- Exclusive use of Scientific Notation: If SI- the International System of Units- is used, the customary units should also be required to be present and visible. We support NRC's proposed continuation of dual labeling with customary units and SI units to prevent unnecessary confusion in this country. (DOT issue # 3, NRC issue #1)

Detailed Concerns with Exempting Radionuclides from Transport Regulations:

We ask DOT to remove DOT Issue #1 and NRC to remove NRC Issue #2, the Radioactivity/Radionuclide Exemption Tables, and accompanying change in the definition of "radioactive materials" (part of Issue #9) from the proposed rules on nuclear transportation (10 CFR 71 and 49 CFR 171, et al).

Due to daily reminders about the danger of radioactive "dirty bombs," the government has been supplying detection equipment to watch for and prevent nuclear materials getting out of regulatory control. Absurdly, the US DOT and NRC are proposing to EXEMPT some of every radionuclide, including plutoniums, strontiums, cesiums, and hundreds of others, at various amounts and concentrations, from regulatory control. It is already enormously difficult and expensive to detect and find radioactive materials that might be used for dirty bombs. What sense does it make now to intentionally exempt shipments of radioactive wastes and materials from the existing controls, tracking and regulations that have been in place for decades? If the regulations are changed, various

levels of radioactive wastes and materials would be considered no longer radioactive and free to be shipped as if uncontaminated.

The Nuclear Regulatory Commission has admitted that the proposed increases in exempt concentrations of radioactive materials will reduce public health and safety.[6]

The Department of Transportation and Nuclear Regulatory Commission should be tightening controls on radioactive materials, not taking steps that will open the door to deliberately dispersing them into unregulated commerce.

Adopting the Radioactivity Exemption Tables and redefining "radioactive materials" in the DOT and NRC proposed rules would result in the removal of a significant barrier to the purposeful release of radioactive materials, from nuclear power and weapons production, into raw materials that can be used to make daily items that come into intimate contact with unsuspecting members of the public.

The public opinion is quite clear that nuclear power and weapons wastes should remain sequestered from the environment and the public for as long as they remain hazardous.

The assumptions and scenarios used to justify the adoption of the Exempt Radioactivity (Radionuclide) Concentration Tables do not prove that exempting radionuclides from regulatory control will have no effect or an insignificant effect. Neither DOT nor NRC (nor the international promoters) have developed and pursued actual transport exposure scenarios for every radionuclide to justify exempt quantities and concentrations, yet they plan to exempt hundreds of them at individually selected levels.

The DOT definition of "radioactive material" changes in the new rules. It is now defined as "any material having a specific activity greater than 70 Bq per gram (.002 microcurie per gram)." The current exempt concentration for all radioactivity is 70 becquerels per gram or 70 radioactive emissions from the nucleus (an alpha or beta particle or gamma ray) per second per gram. Currently there are no exempt quantities in the regulations. The new definition of "radioactive material" would be "any material containing radionuclides where both the activity concentration and the total activity in the consignment exceed the values specified in...[the Exemption Tables]." Since the tables enable much more radioactivity to be exempt, more radioactive material would be legal to move unregulated in commerce on our roads, rails, and other transport pathways, if that definition is adopted.

It does not appear that calculations were even carried out for transportation scenarios for over 350 of the radionuclides listed, yet individual exempt concentration and quantity values are assigned each radionuclide. The assumption appears to be made without

[6] Statement of Charles Miller, Director, NRC Spent Fuel Project Office at the June 4, 2002 Chicago, Illinois, Town Hall Meeting on Proposed Rulemaking Packing and Transportation of Radioactive Materials.

defensible, full technical support for transportation scenarios, that exempting radionuclides poses no risk (or an uncalculated yet acceptable risk) to the public. Since transportation scenarios could well enable complete release of radioactive materials from regulatory control, the full effects of releasing the radioactive materials should be considered in this rulemaking, as well as the transport scenarios. NRC and DOT have not evaluated these impacts other than to propose the simple adoption of values that were developed without public knowledge or input by agencies whose missions are to promote nuclear technology.

In addition, there are provisions in the proposed rule to set exempt concentration and consignment levels for additional radionuclides not listed in the Exemption Tables. Table A-3 sets Exemption fall-back levels, but it is possible that other (presumably higher) levels could be approved. This is even more arbitrary than the listed levels whose justification we question.

It should be noted that at the request of specific industries, those that utilize Californium-252 and Molybdenum-99, the existing values were retained. The A1 value for Californium-252 and the A2 value for Molybdenum-99 will not change when the new values go into effect.

As a member of the public, I am requesting that no Exemption levels be raised and no new Exempt Quantities be adopted so that I can retain my current level of protection.

Regarding the Exempt Consignments or Quantities values, it is unclear how many exempted packages could be moved together in one shipment.

NIRS opposes those Exempt values for one and all subsequent packages in a consignment.

In addition opposition to the Exemption Tables, we are concerned that shippers can use either Table, allowing the maximum amount of radioactive material to be exempt from transport regulations.

We have grave concerns regarding the provision that allows 30 times the exempt levels for LSA -1 shipments which can move without containers at all. We found no technical support in the rulemaking and its documents for this deregulation of decommissioning waste or other large volumes of contaminated materials.

NRC argues that allowing bulk volumetrically contaminated shipments (LSA-1) and surface contaminated objects to travel without containers "will better focus the regulations on radioactive material that truly poses a hazard to persons, property and the environment." No evidence is provided to show that the Low Specific Activity and Surface Contaminated Objects do not truly pose a hazard.

<u>Foreign (and possibly Domestic) Radioactive Waste Could Be Lost:</u>

Adopting the Exemption Tables could permit radioactive materials from other countries or even from within the US to end up outside of the required licensing controls. The following is a possible scenario if the US adopts the Exemption Tables for transportation. Imagine that another country sends to the US some radioactive materials, at or below the listed exempt transport levels, and at levels that are exempt from both transportation and licensing in that country. If the US has not exempted those levels from licensing, but has exempted them from transport regulations such as placarding and manifesting, there would be no mechanism to require resuming regulatory control upon arrival at the destination. In other words, when that material enters the US, it would be exempt from transport regulation and it would escape regulatory control for licensing or any other regulatory controls because it would not require a manifest or be considered a radioactive material (according to the proposed redefinition of "radioactive material"). It is essentially a side door to allow deregulated radioactive materials from other nations to enter the US and be mixed with non-radioactive materials. Similar scenarios could result even for radioactive materials that originate in the United States. This is a set up for violations that will never be caught.

NRC and DOT are adopting volumetric exceptions and exemptions into the new regulations that the public never approved and fully opposes.

The US Environmental Protection Agency has regulations (40 CFR 266) that permit some mixed radioactive and hazardous waste to be considered only radioactive (not hazardous) in various situations including transportation. If the Exemption Tables were adopted for transport, mixed waste that is already exempted from hazardous materials transport regulation, for the hazardous component, might be eligible for exemption from radioactive transport regulations as well. That could permit mixed waste to be treated as if it is neither radioactive nor hazardous.

Public Opposition:

It is clear that deregulating radioactive waste and materials is unacceptable to the American public. Adopting the IAEA exemption levels proposed for the US transport regulations is a clever trick to bring exempt levels into the US codes, and then use them to permit exemptions for not only transport but for exemptions from licensing also.

For the minority of radionuclides whose exempt values decrease lower than the existing 70 bq gm, we could accept reducing the amount of material that would be exempt from regulation. However, this does not justify increasing the exempt levels for the majority of radionuclides (in the Exempt Radioactivity Concentrations Table) or accepting the Exempt Radioactivity Consignment Table. Nor does it substantiate using this side door method of slipping exemptions and dose standards into the regulations.

The exempt levels in the new tables don't appear to reflect the longevity in the environment and hazard to living creatures.

The new regulations (TS-R-1) are being adopted to relax protections and let more radioactive waste out into commerce unregulated. We ask that DOT and NRC remove the Exemption Tables and redefinition of "radioactive materials" to help prevent more and more radioactive waste from being deregulated—treated as if not radioactive—and deliberately dispersed into commercial items we come into contact with routinely.

The new Low Specific Activity (LSA)-1 category is an open door for the deregulation of nuclear decommissioning wastes that should be isolated from the environment and public, not treated like regular trash and sent to unlicensed waste sites or deliberately introduced into raw materials for "recycling" into consumer and industrial goods.

Plutonium: Double vs. Single Containers

We also ask that NRC reject the proposal to allow plutonium to be shipped in single shelled containers, when double shells have been required and used for 30 years. Calculations by the Environmental Evaluation Group for the Waste Isolation Pilot Plant in New Mexico indicate that use of single instead of double shelled shipping containers would result in more releases of plutonium with more severe consequences. We oppose any weakening or indefensible substitutions in cask design requirements.

Maintain requirement that NRC be notified and grant approval of any design changes for dual purpose irradiated fuel casks (Type B (DP) Canisters for Transport and Storage.

We ask NRC to reject the provisions that would allow changes to be made to irradiated fuel casks, dual purpose-storage and transport casks, without notifying or getting permission from NRC. Some groups opposed this provision when it was being adopted for storage casks (into Part 72 of the NRC regulations) and many of us continue to oppose it for the transport aspect of the dual purpose cask regulations.

Submitted by Diane D'Arrigo
Nuclear Information and Resource Service
Radioactive Waste Project Director
202 328-0002 ext 16
dianed@nirs.org