STOCK

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DOCKET NUMBER PROPOSED RULE PR-61 (46 FR 51776) (9)

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OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

Secretary of Commission
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Attn: Docketing and Service Branch

Re: Proposed Rule 10 CFR 61

Gentlemen:

Stock Equipment commends the Commission for the draft 10 CFR 61 as a start toward criteria for proper disposal of radioactive waste. Consistent criteria providing required safety for the general public and radiation workers will be most welcome in the industry.

The following comments are intended to assist the Commission in formulating well-defined regulations which promote reasonably achievable safety standards employing the best available technologies. They are intended to provide background and comment supporting your overall safety objectives.

1. Regardless of the ultimate regulation and waste form criteria, a key to any program is inspection and enforcement. A number of documents have been issued in the past, most of which have provided sound criteria to improve safety and the overall quality of waste management. Reasonable programs and definitions have previously been issued in Appendix I and ETSB 11.3, calling for permanent in-plant solidification capability, solidification of all wet solids prior to ship and process control programs to provide reasonable assurance that solidification is achieved. These documents have not been seriously implemented or enforced. These requirements are incomplete with respect to the whole of the low level waste management issue, but could provide a sound, uniform basis from which the segments of transportation, interim storage and shallow land burial could be examined. The results of failure to enforce the presently existing criteria have been the following:

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ADD: R.D. Smith

a) A significant portion of the waste processing equipment installed in nuclear power plants today cannot meet the present requirements as outlined in ETSB 11.3 and many of the waste generators, due to the uncertainty of requirements, are reluctant to improve the situation. An example of this is the recent occurence at one burial ground where inspection

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was accomplished on a number of containers of solidified waste which resulted in this particular solidification agent being withdrawn from the market.

b) A number of waste generators continue to utilize portable equipment which does not meet the ALARA concept or provide consistent process control.

c) Burial ground states have taken the lead in developing their own, but often inconsistent, standards for disposal. These programs are reactionary in nature, in response to a wide range of ill-regulated waste management programs at generation sites which typically employ less than the best available technologies. An example of this is the recent acceptance of "high integrity containers," by some, but not all burial sites. (The high integrity container itself is subject to differing guidance as to whether it should provide 150 or 300 year service, what the transportation application might require or whether the life requirement can be credibly proven.

d) Designers of waste processing equipment, plant designers and the waste generators, if permanent installations are installed, are forced to design extreme flexibility into the capability of the equipment installed which significantly increases the price as an attempt to be sure that the equipment will, in fact, meet the changing regulatory climate over the life of the station.

e) Based upon our marketing studies it is our opinion that a high percentage of the nuclear reactors in operation and currently building will require retrofit of waste processing equipment to meet criteria in part due to the lack of consistent waste form criteria and enforcement.

2. The philosophy and ideas expressed in 10 CFR 61 are significant steps toward obtaining the objective of consistent safe criteria. Conversely, it is difficult to respond to the document in part due to its omissions, in part due to the uncertainties the document creates in the validity of Appendix I and ETSB 11.3 and in part due to other regulatory documents issued since Part 61 or yet to be issued. The overall waste management "puzzle," if you will, is really the sum of all the pieces, beginning with the generation of the waste and carrying through its treatment, handling and disposal. To reflect intently on one piece with incomplete knowledge of the other pieces and their interrelationships cannot result in an integrated approach, except by chance. Part 61 needs to interrelate with Appendix I and ETSB 11.3. It additionally must account for:

a) New Regulation 782
b) Draft BTP - Waste Form
c) Amended 10 CFR 20 Section 20.311
d) Radiological Safety/Guidance for On Site Contingency Storage Capacity
e) Leachability Test Standards and Criteria (if any)

3. We strongly support the NRC in taking the lead for basic standards and technology in the protection of the public health and occupational workers during transportation and disposal. For some of the reasons listed above, it is our belief that there is an immediate need for this criteria and encourage the Commission to adopt same soon, rather than allowing additional work to progress over a number of years. We also suggest that after the standards are established, enforcement be immediately established to insure compliance. The criteria should be based upon ALARA and use the best technology available. It is our opinion that 10 CFR 61 in its present form is more concerned with the long-term migration considerations rather than protection during processing, transportation and disposal where the hazards are the greatest.

We do not believe that the basic standards and technical criteria should be delegated to the individual states. Most states have limited technical and economic resources to evaluate new or improved techniques and to establish and enforce standards and criteria. Some states also appear reluctant to act without guidance from the Commission.

4. In addition to the three general categories of waste established, it is our belief that it is in the best interest of the American public that the document also include a definition of diminimous radiation level.

5. We agree fully that a key to overall present and long-term safety is to place reliance on stability of disposed waste as indicated in Subsection B of Section 5. Waste form stability must be well defined, however, and enforced during the disposal operation.

Please note that polymer and cement waste forms in use today greatly exceed the proposed waste form strength criteria. Some containers and solidified waste forms in use today, conversely, will not withstand a static 50 psi load. In addition, the dynamic loads due to refilling trenches, compacting trenches and handling containers can, in some cases, exceed the strength of the containers and waste forms.

6. Waste form and characteristic requirements as set forth in Section 61.56A will permit packaging waste which is in a readily dispersable form and which contains significant volumes of liquid that will contribute to radionuclide migration by groundwater. We suggest that 140 curies of Cobalt 60 in a 55 gallon drum is of significant concern during the transporation, disposal and first 50 years of institutional control. There are waste

solidification technologies available and in use today that can consistently place this material into a stable waste form. It is our opinion that the use of these technologies can reduce the transportation and disposal problems as well as reduce the potential hazards due to future intruders at the site.

7. It is our opinion that to meet the purpose of this regulation, all classes of waste should exclude the presence of liquids. The practice of disposing of ion exchange media by dewatering, for example (which contains potentially, relatively high radiation content) vs. solidification of the evaporator concentrates containing a relatively low radiation content is not logical technically or politically.

8. Stock suggests considering in-plant handling, transportation and disposal processes that all waste containers should be constructed of materials that will not support combustion. This term is applicable in the recently received Radiological Safety/Guidance for On Site Contingency Storage Capacity for low level dry waste storage. We concur with this application, but suggest the need is even more important when considering ion exchange resins or waste solidified in organic combustible solidification agents.

Thank you for the opportunity to comment upon this document. Stock stands ready to assist in any reasonable endeavor if you should desire it. We will also comment further regarding other phases of the program when draft documents are available.

Sincerely,

Paul C. Williams

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