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August 27, 1992

Mr. John Austin  
Chief, Decommissioning and Regulatory Issues Branch  
US Nuclear Regulatory Commission  
Washington, DC 20555

Subject: Regulatory Guide 1.21 Report, Processed Solid Waste Reporting

Dear Mr. Austin,

Our firm supports and maintains the NRC approved RADMAN computer program which is used by most nuclear power stations to support their low level radioactive waste management activities.

One of the reports generated is the Regulatory Guide (RG) 1.21 report for solid waste releases. Prior to industry's use of volume reduction processors, the volumetric quantities shown on this report for solid waste were the packaged volumes shipped off-site. These volumes corresponded to those disposed. Today, there are marked differences between packaged solid waste volumes shipped to volume reduction processors and the packaged waste volumes ultimately disposed. Additionally, there are long time lapses between a stations shipment to a processor and processor shipment of the volume reduced waste to a disposal site.

These changes in industry practice have led to inconsistencies in the basis for reporting off-site processed solid waste on the RG 1.21 report. We have made informal inquiries to both NMSS and NRR to clarify the subject but have been unable to resolve how to prepare the report. Clarification is currently needed in two areas: the solid waste volume to be reported; shipped versus disposed, and the timing of the event which leads to inclusion of a volume in the RG 1.21 report; initial shipment versus final disposal. Our codes track the information necessary to report whatever is deemed necessary. Several options are available for reporting processed waste volumes as follows:

Option 1 - Report the solid waste volume initially shipped by the generator with the basis for report inclusion the ship off-site dates.

Option 2 - Report the solid waste volumes disposed by a processor on behalf of a generator with the basis for report inclusion the disposed dates.

Option 3 - Provide two sets of information in the report; that described under Option 1 plus that described under Option 2.

Bear in mind that the two sets of information provided under Option 3 are not compatible for the report period since processor disposal can lag generator shipment by many months. Thus, the specific shipments included in shipped volumes are not those included in the disposed volumes for the report period.



Mr. John Austin  
August 26, 1992  
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With the proposed rule-making on effluent release reporting, it seemed timely to request that the RG 1.21 processed solid waste subject be clarified and we would appreciate your reviewing and resolving this matter. We can then incorporate whatever is decided in our codes and thus ensure that most stations are reporting processed solid waste releases on a consistent basis.

Thank you for consideration for this request. If you need additional information on this subject, please let us know.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "P. Tuite".

Peter T. Tuite  
President

cc: Lemoine J. Cunningham  
Chief, Radiation Protection Branch

PTT/cr



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

DEC 21 1992

Mr. Peter P. Tuite  
WMG Inc.  
93 Albany Post Road  
Montrose, New York 10548

Dear Mr. Tuite:

In your August 27, 1992 letter, you requested Nuclear Regulatory Commission clarification on whether volumes of low-level radioactive waste (LLW) that leave a generator's facility for processing or that are sent for disposal after processing should be specified as solid waste in the Regulatory Guide 1.21 report. You pointed out that changes in industry practice, involving the shipment of some LLW to processors for volume reduction, had led to reporting inconsistencies. This issue has also been brought up at recent NRC staff meetings and a resolution has recently been issued which I am providing as an enclosure.

If you have any questions or comments, please contact me at (301) 504-2560 or William Lahs. at (301) 504-2569. We appreciate your bringing this issue to our attention.

Sincerely,

A handwritten signature in cursive script that reads "John H. Austin".

John H. Austin, Chief  
Decommissioning and Regulatory  
Issues Branch  
Division of Low-Level Waste Management  
and Decommissioning  
Office of Nuclear Material Safety  
and Safeguards

Enclosure: As stated



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555  
DEC - 7 1992

MEMORANDUM FOR: Those on Attached List

FROM: Sher Bahadur, Acting Chief  
Low-Level Waste Management Branch  
Division of Low-Level Waste Management  
and Decommissioning  
Office of Nuclear Material Safety  
and Safeguards

LeMoine J. Cunningham, Chief  
Radiation Protection Branch  
Division of Radiation Protection  
and Emergency  
Office of Nuclear Reactor Regulation

SUBJECT: WASTE VOLUME REPORTING REQUIREMENTS OF RG 1.21 AND  
THE NEED FOR WASTE CLASSIFICATION DOCUMENTATION

The minutes of the April 1992 Reactor Health Physics Counterpart meeting identified two items (K-5 and K-6) requiring resolution. The first involved a question regarding the volumes and activity of low-level waste, sent offsite for processing, which should be reported per RG 1.21 in the reactor licensees' semiannual (now annual) effluent release reports (i.e., per 50.36a). This question came up again recently in a telephone conversation with a contractor involved in decommissioning activities at the Shoreham plant. The second item involved the need for a licensee to provide waste classification documentation for radioactive material shipped to a processor for segregation prior to subsequent offsite disposal.

The solid waste information reported in the annual report should be the volume and activity of the low-level waste leaving the reactor site which the licensee believes will be sent directly, or via a processor or collector, to a licensed disposal site. Consistent with this response, and Regulatory Guide 1.21, Table 3, the report should identify the type of waste, the number of shipments, mode of transportation, and destination of the waste shipments leaving the licensee's facility. If it is known by the licensee that waste shipped to a processor is to be received back following processing, the volume and activity of the processed waste would not be included in the annual reports until the waste again leaves the site for disposal.

With respect to the second item, current regulations [20.311(d)] require the preparation of a manifest for transfers of radioactive waste to a land disposal facility, a licensed waste collector, or a licensed waste processor. The term, "radioactive waste," as used above applies to the transfer of any radioactive material for which no further use by the licensee is foreseen (e.g., material sent for compaction prior to disposal is waste; contaminated tools transferred for decontamination prior to intended reuse is not waste).

Attached List

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On the follow-on question, the regulations do not require a generator to classify waste being sent to a processor. Classification is only required if the generator is shipping low-level waste to a collector or directly to the disposal site. Note that the May 1983 Technical Position on Radioactive Waste Classification incorrectly states that transfers of waste to a processor require licensees to classify the waste. A pending revision to this Technical Position incorporates the needed correction.

**ORIGINAL SIGNED BY**

Sher Bahadur, Acting Chief  
Low-Level Waste Management Branch  
Division of Low-Level Waste Management  
and Decommissioning  
Office of Nuclear Material Safety  
and Safeguards

**ORIGINAL SIGNED BY**

LeMoine J. Cunningham, Chief  
Radiation Protection Branch  
Division of Radiation Protection  
and Emergency Preparedness  
Office of Nuclear Reactor Regulation

