

DCD (SP03)

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**To:** OWFN\_DO.owf1\_po(TJO)  
**Date:** Wed, Dec 1, 1999 1:23 PM  
**Subject:** MARYLAND RESPONSE TO SP-99-074

Re: SP-99-074

Sorry for the delay. Any ?s please call at 410-631-3300.

Ray Manley

**CC:** GATED.nrcsmtp("rfletcher@mde.state.md.us","ctrump@...

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SP-A-4

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## MARYLAND RESPONSE TO NRC SP-99-074-REQUEST FOR TECHNICAL INFORMATION

### Response to question #42:

**“WASTE”** means a radioactive material, or substance contaminated with radioactive material, that is useless and has no demonstrated economic value. In addition, the definition of waste shall include those radioactive wastes controlled under the low level Radioactive Waste Policy Act, P.L. 96-573 as amended by P.L. 99-240, effective January 15, 1986; that is, radioactive waste (a) not classified as low-level radioactive waste, spent nuclear fuel, or byproduct material as defined in Section (e)(2) of the Atomic Energy Act (uranium or thorium tailings and waste) and (b) classified as low-level radioactive waste consistent with existing law and in accordance with (a) by the U.S. Nuclear Regulatory Commission.

**“RHS DISPOSAL”** (radioactive hazardous substance is synonymous with low level radioactive material waste) means the isolation of RHS from the biosphere inhabited by man and containing his food chains by emplacement in an RHS land disposal facility.

**“EFFLUENT”** no regulatory definition.

**“BYPRODUCT MATERIAL”** means:

1. Any radioactive material, except special nuclear material, yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material; and
2. The tailings or wastes produced by the extraction or concentration of uranium or thorium ore processed primarily for its source material content, including discrete surface wastes resulting from uranium or thorium solution extraction processes. Underground ore bodies depleted by those solution extraction operations do not constitute “byproduct material” within this definition.

**“TRANSFER”** no regulatory definition.

**“RELEASE LIMITS”** no regulatory definition.

### Response to question #43:

In Maryland, other than effluent releases allowed under COMAR 26.12.01.01 Appendix B of Section D (10 CFR Part 20 Appendix B), no disposal of specifically licensed radioactive material into the public domain is authorized except for the following. By license condition, Neutron Products, Inc. is allowed to have up to 8 pCi/gm in soil in the public domain prior to the requirement for clean up. Once cleaned up the Co-60 must be disposed of at an authorized radioactive material disposal facility. Should a request be received Maryland uses Regulatory

Guide 1.86 as a basis for case by case evaluations that emphasize ALARA, evaluations of risk factors and final destination of materials.

**Response to INFORMATION REQUEST ON RELEASE OF SOLID MATERIALS**

1. Maryland's radiological release criteria were developed using NRC Regulatory Guide 1.86. Case by case evaluations that emphasize ALARA, evaluations of risk factors and final destination of materials are conducted upon any licensee requests. RESRAD and MARSSIM are acceptable mechanisms to Maryland for RHP and licensee evaluations of relevant radiological criteria.
2. NRC guidance and ALARA as applied on a case by case basis.
2. Maryland has currently accepted the MARSSIM as the most appropriate survey/monitoring methodology.
3. Hand-held instruments are used in conducting field-monitoring surveys. In addition, samples are collected and analyzed in a Radiation Chemistry Laboratory. The Lower Limit of Detection must be lower than the limit of the release criteria.
4. Radiological surveys and/or laboratory analyses of an adequate quantity of collected samples.
5. The State of Maryland has one licensed facility with a volumetric release authorization. The facility uses cobalt-60 and has difficulty controlling contamination. As a result concentrations of cobalt-60 are found in the soil both on and off site. Using USNRC guidance, the State issued a license condition, by way of amendment, limiting the soil concentration of cobalt-60 to less than 8 picocuries per gram. Areas exceeding this criteria are required to be remediated by the licensee. The State collects soil samples on a regular frequency. The licensee is under a court order to comply with the license condition and clean-up criteria.