

**NRC Staff Comments on Conference of Radiation Control
Program Directors' "Part N Implementation Guidance for Regulation and Licensing of
Technologically Enhanced Naturally Occurring Radioactive Material"**

1. The Committee should review our March 15, 1999, comments on Part N, and determine which, if any, can be addressed in this guidance document without causing a conflict with the final Part N.
2. P.1 - The document states that "Although the USNRC limits [of 100 mrem/yr and 25 mrem/yr] were adopted for *byproduct* [emphasis added] radioactive material. . ." We suggest that the word "byproduct" be changed to "Atomic Energy Act." Byproduct material is just one of the kinds of materials covered by the dose limits.
3. P.3 -The first paragraph of section 2.1 states that "Part N does not apply to materials containing concentrations of source material equal to or greater than 0.05% by weight." It is not clear whether Part N is meant to apply to source material of less than 0.05% by weight. We suggest that we provide this comment to CRCPD and that this issue be discussed in the context of the staff's implementation of the Commission's March 9, 2000, SRM on low-level source material.
4. PP. 5-8 - These pages discuss the licensing of a facility managing TENORM and suggest that a general license is adequate for most facilities managing TENORM. However, the guidance appears to expect that the generally licensed TENORM facility will conduct many activities associated with the control of radiation that are typically required of specific licenses. For example, the guidance states that the general licensee must control contamination, worker and public exposures and ensure that activities associated with higher potential doses (such as facility decommissioning) are performed by a specifically licensed entity. In addition, the guidance indicates that the TENORM facility must ensure that equipment released with TENORM contamination in excess of the "unrestricted use" limit is used in a prescribed manner. It is unclear from the guidance how the regulatory authority will ensure that a general licensee will maintain the suggested radiation protection program or ensure that the equipment is used in the prescribed manner. Suggest that additional guidance on how this will be accomplished is included in the guidance.
5. P. 16 - The guidance indicates that the Environmental Protection Agency's Toxicity Characteristic Leaching Procedure (TCLP) may be used to develop information to calculate distribution coefficient for radionuclides in soil. As the TCLP was designed to simulate the movement of hazardous waste in a conventional landfill, it is not clear if this procedure is appropriate for developing the distribution coefficients for radionuclides in the environment. We suggest that the use of the TCLP for developing distribution coefficients be better validated before including this in the guidance or the reference that states that the TCLP is appropriate to develop distribution coefficients be included in the final guidance.
6. P. 20 - Section 6.2 indicates that the Part N fixed "alpha" contamination limits is 5000 disintegrations per minute per 100 square centimeters (5000 dpm/100cm²), which is the

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limit for most uranium isotopes and their decay products. However, Reg Guide 1.86, states that the acceptable levels of fixed contamination for Ra-226 and Ra-228 is 100 dpm/100cm². The values in Section 6.2 apply to radium. In addition, the criteria for removable contamination discussed in this section also appears to be inconsistent with NRC's criteria. Suggest that Section 6.2 be reviewed to ensure that it is consistent with the limits in the suggested regulations and NRC's criteria in Reg Guide 1.86

7. P. 21 - Statements on this page appear to advocate the use of exposure levels as screening levels for determining the fixed and removable contamination levels on equipment. As this method of evaluating contamination levels on equipment can be impacted by numerous factors, which may not be obvious to a general licensee, suggest that the use of this method be de-emphasized in the guidance.
8. P.28 - The information regarding the computer codes in Table 1 "Selected Models for Assessing the Radiation Exposure from Residual Radioactivity" appears to be somewhat dated. Suggest that the table be updated to reflect more current information on these codes.