

Met-Ed GPU



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Writer's Direct Dial Number

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U.S. NUCLEAR
REGULATORY COMMISSION

TMI Program Office
Attn: Mr. L. H. Barrett, Deputy Program Director
U. S. Nuclear Regulatory Commission
c/o Three Mile Island Nuclear Station
Middletown, Pennsylvania 17057

Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
Operating License No. DPR-73
Docket No. 50-320
Use of EPICOR-II for SDS Effluent Polishing

The purpose of this letter is to inform you of GPU Nuclear's plan for disposing of the wastes generated by EPICOR-II during SDS polishing. As you are aware, GPU plans to polish the effluent from the SDS System by using EPICOR-II. In the polishing mode, EPICOR-II will be sodium limited rather than curie limited. Our intention is to load the EPICOR liners in such a way as to remain below the current limit of 1 $\mu\text{Ci/cc}$ of isotopes with half-lives greater than five years. These resin liners would then be suitable for shallow land burial unconsolidified.

Table 1 Column 1 of the proposed 10CFR61 lists the maximum concentration for Class A segregated waste. Isotopes of interest to the TMI-II Recovery Program are $\text{Co}60$, $\text{Sr}90$, and $\text{Cs}137$. The proposed limits for these isotopes are 700 $\mu\text{Ci/cc}$, 0.04 $\mu\text{Ci/cc}$, and 1 $\mu\text{Ci/cc}$ respectively. For the rest of the nuclear industry, these values are a relaxation of the present limit of 1 $\mu\text{Ci/cc}$. However, due to TMI's unusually high $\text{Sr}90$ to $\text{Cs}137$ ratio, these values are more restrictive. Implementation of the more restrictive $\text{Sr}90$ criteria for unconsolidified waste at TMI would result in the generation of ten times more waste than would be generated using current limits. We would expect to generate 250 EPICOR-II liners if forced to comply with the proposed 10CFR61 compared to our current estimate of twenty-five (25) liners. We feel this is contrary to the concept of volume reduction and is totally unacceptable.

Therefore, we propose to limit the EPICOR-II wastes to the more conservative limit of 1 $\mu\text{Ci/cc}$ of isotopes with half-lives greater than five years. This includes $\text{Cs}137$, $\text{Sr}90$, and $\text{Co}60$. In addition, we plan to bury these liners at the bottom of a normal shallow land burial ground trench in order to provide extra protection against the inadvertent intruder. We feel that this approach will protect the health and safety of the public as well as minimize the volume of waste generated during this part of the TMI

Approved
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Mr. L. H. Barrett

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Recovery Program. We expect you will find this method of disposal acceptable for the EPICOR-II wastes generated during the operation of the SDS system. If any concerns exist, please notify us expediently so that prompt resolution can occur.

Sincerely,



G. K. Hovey
Vice-President and
Director, TMI-2

GKH:RBS:djb

cc: Dr. B. J. Snyder, Program Director, TMI Program Office