



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV
URANIUM RECOVERY FIELD OFFICE
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URFO:PJG
Docket No. 40-8681
SUA-1358, Amendment No. 12
04008681060E

MEMORANDUM FOR: Docket File No. 40-8681

FROM: Pete J. Garcia, Project Manager
Licensing Branch 2
Uranium Recovery Field Office, Region IV

SUBJECT: AMENDMENT NO. 12 TO SUA-1358 FOR THE UMETCO MINERALS
CORPORATION'S WHITE MESA MILL

Background

By letter dated January 20, 1987, Umetco Minerals Corporation (Umetco-WM) requested an amendment to its Source Material License SUA-1358 to authorize the receipt and disposal of contaminated waste materials from Energy Fuels Nuclear's (EFN), Bingham Canyon, Utah ion exchange (BCIX) facility. The requested disposal would be in the tailings disposal system at the Umetco White Mesa Mill. The BCIX facility is a secondary uranium recovery facility which is licensed by the State of Utah. It extracts uranium from waste water generated by the processing of copper-bearing ores for their copper content.

Discussion

The BCIX waste inventory is packaged in 55 gallon containers. These wastes are characterized as processing waste and other unconsolidated solid wastes and salvage. The processing wastes are spent resins, while the other solid wastes are typically process-contaminated plastic piping and some concrete scrap. The EFN staff indicate there are currently 27 drums of resins and approximately 3 drums containing other solid wastes in backlog awaiting shipment to the White Mesa Mill for disposal, if approved. Also, the BCIX facility would potentially generate a maximum of 100 drums of waste annually. The total volume of waste material to be

DRAFT

- 2 -

disposed would therefore constitute an extremely small percentage of the tailings volume currently in the tailings cell at the White Mesa Mill.

According to the Umetco-WM application, the drummed waste materials will be opened and visually inspected before burial to determine if any voids are present. If void spaces are identified within the waste drums, they will be eliminated by the addition of a sufficient amount of tailings material and resealed prior to disposal. As stated in the January 20, 1987, amendment request, Umetco-WM proposes to dispose of these waste materials at a disposal location which is situated in Tailings Cell No. 2. This location was previously authorized for disposal of mill generated wastes by Amendment No. 3 to the license. As proposed by Umetco-WM the BCIX wastes will be disposed in accordance with the existing waste disposal procedures contained in License Condition No. 42 of Source Material License SUA-1358. The staff has determined that the radiological safety aspects of the receipt, handling, and disposal of these wastes as proposed would be compatible to current disposal of mill generated wastes at this site and constitutes no unwarranted risk to workers. The staff also concludes the amount of wastes and their disposal would not unduly impact the site reclamation plan or produce additional environmental impact.

However, the staff must also consider the regulatory basis to authorize the disposal of these wastes at the White Mesa Mill since the BCIX wastes are generated by a secondary uranium recovery facility. As literally taken from the regulations, the wastes resulting from secondary recovery licensee's operations do not meet the definition for "byproduct materials" as defined in 10 CFR Part 40. Byproduct materials are defined as "Tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content". The staff recognizes that the BCIX wastes are physically identical to those wastes generated by a licensed uranium primary recovery facility such as an R&D in-situ leach project. Such wastes are byproduct material wastes and are routinely authorized for disposal at remote uranium mill tailings ponds. The staff believes it is logical and consistent with the purposes of the Commission's regulations to authorize the disposal wastes from uranium secondary recovery facilities as like kind wastes. The volumes of such secondary wastes are minimal when compared to existing byproduct material wastes created at licensed uranium facilities and will not appreciably impact the reclamation objectives at any site that would be authorized to dispose of secondary wastes.

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CONCLUSION

Based on my review of Umetco-WM's amendment request dated January 20, 1987, I conclude that the proposed disposal of secondary wastes should be authorized in that it will not have a significant impact on the integrity of the Umetco tailings system, and will not detrimentally impact the reclamation of the existing tailings. Therefore, I recommend that Source Material License SUA-1358 be amended by revising License Condition No. 42 to read as follows:

42. The licensee is authorized to dispose of contaminated materials and equipment generated by its milling operations in accordance with their submittal dated December 18, 1985. In addition, the licensee is authorized to dispose of up to 100 drums of contaminated resins and other processing wastes received from the Bingham Canyon, Utah ion exchange facility (Utah License No. UT-1800226) annually in accordance with the details of the submittal dated January 20, 1987. All waste disposal activities authorized by this condition shall be documented, and records detailing the amount and locations of disposals shall be maintained.

Pete J. Garcia, Project Manager
Licensing Branch 2
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Approved by:

Harry J. Pettengill, Chief
Licensing Branch 2
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Region IV