

NOV 05 1982

DISTRIBUTION
Docket File No. 40-8681
PDR
URFO r/f
URFO w/f
NRC Region IV
TLJohnson
JJLinehan
HJPettengill
RDSmith
JTCollins
BFisher

URFO:TLJ
Docket No. 40-8681
SUA-1358
040086812705

MEMORANDUM FOR: Daniel M. Gillen
Uranium Recovery Field Office

FROM: Terry L. Johnson
Uranium Recovery Field Office

SUBJECT: REVIEW OF FREEBOARD REQUIREMENTS - ENERGY FUELS
NUCLEAR, INC.

Background

By letter dated July 9, 1982, Energy Fuels Nuclear, Inc. (EFN) requested a reduction in the freeboard requirements for the Cell 1 evaporation pond at the White Mesa uranium mill. The request was based on the modified freeboard criteria outlined in the NRC draft staff technical position paper WM-8201, "Hydrologic Design Criteria for Tailings Retention Systems". License Condition No. 26c currently requires six (6) feet of freeboard in Cell 1, which corresponds to a maximum operating level of 5614.0 ft. msl.

Discussion

EFN requests that the maximum operating level be raised from elevation 5614.0 ft. msl. to elevation 5616.6 ft. msl. EFN states that the new calculated maximum operating level of 5616.6 would be 1.9 feet below the level of the existing emergency spillway which connects Cells 1 and 2. This maximum level would be approximately 3.5 feet below the crest of the embankment.

I reviewed the effects that the revised freeboard would have on the operational safety of the impoundment. I conclude that only minor wave overtopping of the spillway would occur after an occurrence of the local probable maximum precipitation (PMP), coincident with severe wind-wave activity. This overtopping would result in a slight release of water from Cell 1 to Cell 2 and would not be released offsite. Additionally,

40-8681/tlj/82/09/23/0

20570

OFC :	8211170383	821105	:	:	:
-----	PDR	ADOCK 04008681	-----	-----	-----
NAME :	C	PDR	:	:	:
-----	-----	-----	-----	-----	-----
DATE :	82/09/23	:	:	:	:

OFFICIAL DOCKET COPY

NOV 05 1982

the wind-wave activity would not overtop or threaten the integrity of the impoundment slopes.

Based on my independent review of local PMP and wind-wave activity, I conclude that the proposed revised freeboard is acceptable and meets the criteria outlined in the draft position paper WM-8201. The proposed freeboard also will meet the criteria of the final staff position paper (to be issued in November) that will contain minor revisions to the draft based on public comments received.

Proposed Action

Based on the above conclusions, the proposed action is the amendment of Source Material License No. SUA-1358 by revising License Condition No. 26c. The freeboard requirements for the Cell 1 - Initial evaporation pond would be reduced from 6 feet to 3.5 feet.

Issuance of this amendment would not result in any incremental impacts above those previously assessed for this project. Approval of this amendment with the following revised condition is recommended.

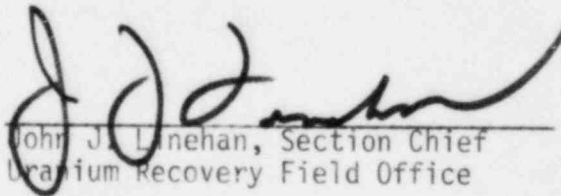
26...

- c. Maintain a minimum freeboard of 5 feet in tailings cells 2 and 3 and a minimum freeboard of 3.5 feet in the Cell 1 - Initial evaporation pond.

Original Signed By:

Terry L. Johnson
Uranium Recovery Field Office

Approved By:


 John J. Linehan, Section Chief
 Uranium Recovery Field Office

Case Closed: 0400868112705

40-8681/tlj/82/09/23/0

OFC	: URFO	: URFO	:	:	:	:
NAME	: TLJohnson:ag	: JJLinehan	:	:	:	:
DATE	: 82/10/26	:	:	:	:	:

OFFICIAL DOCKET COPY