



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

AEOD/N104

APR 30 1981

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MEMORANDUM FOR: File

FROM: Eugene A. Trager
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SUBJECT: INTERIM REPORT ON THE JANUARY 2, 1981
FIRE AT THE ATLAS URANIUM MILL

Background

Renewed source material License No. SUA-917 was issued on April 23, 1979 to the Atlas Corporation for continuing operation of the Moab Uranium Mill (Docket No. 40-3453), following publication of the Final Environmental Statement (FES), NUREG-0453, dated January 1979. The mill has been in operation since October 1956.

In 1968, a major fire at the Atlas Mill started in the solvent extraction circuit. A second fire occurred in January 1981.

Discussion

On January 2, 1981, a fire occurred in the scrubber servicing the yellowcake packaging area of the Atlas Mill. This occurrence was reported promptly to Region IV pursuant to 10 CFR 20.403 and was noticed by IE in the HQ daily report on 1/5/81. A PNO (#PNO-IV-81-02) was issued which indicated that no injuries were sustained and that damage was not expected to be extensive. The RIV log of reports received in January 1981 indicates that a 1/16/81 letter was received from Atlas which documented the 1/2/81 event, as required by 20.405.

In a January 7, 1981 letter to NMSS/WMUR Atlas forwarded additional information on the fire. In the letter Atlas stated the dryer was not being fed yellowcake at the time because the drum filter used to feed the dryer was being dressed with a new filter cloth. Atlas also said they believed that "the fire was a result of insufficient water flow to our quench chamber and scrubber. Also, a build-up of material on the temperature indicators (sic) prevented them from functioning and properly activating a damper to allow outside cooling air to enter the scrubber." Atlas described the damages that were sustained and operational and maintenance changes that they proposed to prevent recurrence. In addition, Atlas stated that they were investigating the use of fail safe instrumentation in that portion of the processing circuit. Finally, Atlas requested permission to restart the dryer.

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On 1/16/81, I asked the WMUR project manager whether IE RIV was investigating the fire. He told me that he did not know and that Atlas had been reporting directly to WMUR.

On 1/29/81, Glen Brown of Region IV was contacted by telephone concerning the Atlas fire. He said RIV had performed an investigation but the report was in preparation. (No health and safety problems had been identified.)

On 2/19/81, the IE HQ docket file for the Atlas Mill (40-3453) was reviewed and although the 1/2/81 and 1/16/81 incident reports by the licensee had not been filed, they were available. However, it was noted that the reports had gotten to the docket file because they had been docketed and distributed by NMSS and not because they had been forwarded to HQ from RIV. (This comment concerns document flow and not the Atlas fire.)

In response to the January 7, 1981 letter from Atlas regarding the fires Amendment 4 to the Atlas Mill license and an evaluation report supporting that amendment were issued by WMUR on February 20, 1981 (Attachment 1). The amendment authorized restart of scrubber operations and imposed additional monitoring requirement(s) on those operations. The amendment states: "This requirement is in conformance with Technical Criteria (sic) 8 of the recently implemented final regulations on uranium milling and has been required in all our recent licensing actions in this regard." There is no mention in the WMUR evaluation report of any correspondence between IE and WMUR concerning the IE investigation of the fire or comment by IE on the content of the amendment.

Region IV was again contacted on 3/27/81 about the report of the investigation of the Atlas fire. I was informed that RIV records indicated that the report had not been sent out yet.

The Safety Evaluation Report (SER) issued in support of the uranium mill licenses and license renewals treats the fire safety program only briefly. The focus of that portion of the safety review is on fires which might result in releases of radioactivity to the environment. It is not an evaluation as much as it is a description of the fire protection program.

Inspection of fire protection activities is a routine part of uranium mill inspections. However, it is not clear that these inspections can identify weaknesses in fire protection systems.

Preliminary Conclusions

Information available at this time indicates that the 1/2/81 Atlas fire was not a significant event in terms of health and safety. However, the following points should be made:

1. There appears to be a need to reevaluate the portion of safety reviews which is concerned with the adequacy of fire protection measures. It is not clear what criteria are being used in the evaluation of fire protection programs. Similarly, criteria appear to be needed by inspectors to ensure that adequate inspections are performed of fire protection systems.
2. It is not clear that IE and NMSS/WMUR responded efficiently to this event. WMUR analyzed the fire and amended the Atlas license to prevent recurrence, but did not obtain input from IE. IE performed an investigation but did not prepare and forward the investigation report in a timely manner. In certain cases, this independent action might result in a duplication of effort, but in others, it might result in an incomplete or inappropriate licensing response to a problem. (This second point does not concern the Atlas fire but the effectiveness of the reporting system.)

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