NOTICE

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RLO-LG-4

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JUN 15 1956

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To: File

From: W. H. Koop

October 15, 1951

REMOVAL OF RUPTURED URANIUM SLUG
FROM TUBE NO. 4374-BSUMMARY

The 105-B Reactor was shut down at 9:31 AM on October 8, 1951 to remove a ruptured uranium slug from tube No. 4374-B. Removal was accomplished by hydraulically ejecting the charge downstream from the ruptured slug, transferring the upstream charge to adjacent tube No. 4373-B and removing the process tube containing the ruptured slug. The removal operation required 28.5 hours, however, the Reactor remained down 52.5 hours to complete a scheduled outage and associated temporary poison discharge.

DETECTION

The rupture was initially indicated by the effluent monitoring system. Subsequent header sample analyses confirmed the rupture and the Reactor was shut down. A reading of 5 R/hr. was obtained on the rear pigtail of tube No. 4374-B.

REMOVAL

Efforts to discharge the tube with the pneumatic charger were unsuccessful. Forces up to 6500 lbs. failed to backseat the charge. The downstream dummy charge and thirty-three metal slugs were hydraulically ejected. The slugs upstream from the ruptured piece were transferred to adjacent tube No. 4373-B. The tube containing the ruptured slug was then pushed out. The tube was replaced and charged with the regular production loading.

DATA ON THE CHARGE

Tube No. 4374-B contained regular metal charged February 7, 1951. The tube was operating at 168 KW power level and had reached 58% of current goal concentration.

The ruptured slug was the 31st slug from the front of the charge. It was M2 type, canned December 15, 1950, processed on truck G, line 7 and the autoclave mark could not be found.

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EXAMINATION AND DISPOSAL

Examination of the ruptured slug in the tube section revealed that the end cap had become separated from the remainder of the ruptured piece. The exposed surface appeared to be deeply pitted along four radial cracks.

The ruptured slug in the section of tube was cased and is being held in 204-B storage basin awaiting transfer to 11-B for further examination.

~~2/21/64~~
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REACTOR SECTION

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CORRECTION

The preceding document has been re-
photographed to assure legibility and its
image appears immediately hereafter.

EXAMINATION AND DISPOSAL

Examination of the ruptured plug in the tube section revealed that the end cap had become separated from the remainder of the ruptured piece. The exposed surface appeared to be deeply pitted along four radial cracks.

The ruptured plug in the section of tube was cased and is being held in 105-B storage basin awaiting transfer to 111-B for further examination.

W. J. H. H.
OPERATIONS UNIT
REACTOR SECTION

WJK:522

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