U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION V

IE Inspection Report No. 70-25/77-02 (IE-V-159)

Licensee Atomics International Division
Rockwell International
8900 DeSoto Avenue
Canoga Park, California 91304

Docket No. 70-25

License No. SNM-21

Priority 1

Group
~~Category~~ 1

Facility

Location Canoga Park, California

Type of Facility Fuel Fabrication

Type of Inspection Special Inspection, Mat'l Acct., Announced

Dates of Inspection January 21, 1977

Dates of Previous Inspection November 1-5, 1976

Principal Inspector
G. H. Hamada, Safeguards Statistician — 1/27/77 Date

Accompanying Inspectors — Date

— Date

Other Accompanying Personnel: None

Reviewed by
V. N. Rizzolo, Chief, Safeguards Branch — 1/27/77 Date

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SUMMARY

Enforcement Action

None.

Significant Findings

This was a special inspection.

Discussion

A special inspection was conducted to followup on several items which were pending during the previous routine inspection.

Under the recently implemented Fundamental Nuclear Material Control (FNMC) plan, the Manager, Nuclear Materials Management has been designated as the individual who performs the required annual Measurements Review. This review was required to be completed by December 1976. This was done on a timely basis and a copy obtained for review by Region V.

Recent activities involving recalibration of the waste barrel counting system and reevaluation of all waste barrel count data have resulted in a significant increase in SNM in the waste inventory. The net effect of this increase has been a significant reduction in the overall U-235 MUF, particularly for the now completed EBR-II effort. Since waste is one of the least precise measurements made for accountability purposes, it was deemed necessary to maximize the credibility of waste data through remeasurement of some fraction of the waste barrels on inventory. Since there was an appreciable range in the SNM content of the barrels, a selection procedure was used such that members from the various concentration strata would be represented in the population selected for remeasurement. Approximately 25 percent of the barrel population was remeasured. These data are now being evaluated to determine if the remeasurement substantially changes the SNM value credited to stored waste.

The major difficulty with waste measurement is the uncertainty in its calibration. Biases are difficult to determine but their magnitude could be large. It seemed desirable, therefore, to obtain an independent assessment of the accuracy of waste barrel measurements, preferably through the application of state-of-the-art methods. The Random Driver and Segmented Scanner developed by LASL

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are especially suited to this type of measurement. The feasibility of having LASL perform these measurements on a few of AI's waste barrels is being looked into. AI expressed a strong interest in participating in this effort with LASL.

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