

IN REPLY REFER TO:

UNITED STATES  
ATOMIC ENERGY COMMISSION

District II Safeguards Office  
Oak Ridge, Tennessee 37830  
October 11, 1968

To the Files

SUMMARY OF FINDINGS - COMMONWEALTH EDISON COMPANY, DRESDEN UNIT NO. 1

The following summarizes the findings resulting from the nuclear materials safeguards inspection conducted by Messrs. James H. Joyner and John W. Hodges during the week of September 16, 1968, at Unit No. 1, Dresden Power Station, Commonwealth Edison Company.

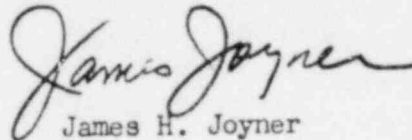
The findings were discussed with Reactor Engineers Bob Lemke and Larry Thompson on September 19, 1968, in the absence of Plant Superintendent, H. K. Hoyt, and with Don Leydon, who prepares the material status reports, on September 20, 1968. A copy of the summary was left for Mr. Hoyt.

1. Written material control and accounting procedures meet the current requirements of 10 CFR 70.51(b). We understand that the performance (thermal output) calculation writeup is being revised and that United Nuclear will furnish the site with a copy of information describing their ISOLUX-TRILUX procedure (burnup calculation). A copy of this description was available at the Commonwealth Edison main office in Chicago and was reviewed by the inspection team.
2. Documentation of internal and external fuel movements was found to be acceptable.
3. Dresden was advised to maintain a more complete record of annual inventories. It was suggested that a basin schematic be used and that a certification statement be included on the schematic. Serial numbers of material in the fuel vault might be listed on the same schematic to cut down on paper volume.
4. It was noted that BOC-5 weights shown in the computer printout for type V assemblies (new at the time) do not agree with weights shown on the 388's. No explanation could be found. The differences are consistently 18 grams  $^{235}\text{U}$  per assembly (total of 1.9 kgs. for the core). Total uranium values were found to be correct indicating that  $^{238}\text{U}$  values shown in the BOC-5 printout are in error by 18 grams in the opposite direction.  $^{235}\text{U}$  weights shown in the printout are lower than the comparable value on the 388. The net effect is that Commonwealth Edison has paid for almost two kilograms of  $^{235}\text{U}$  burnup that did not occur. Don Leydon, Commonwealth Edison General Books Department, will attempt to track down and correct this as necessary.

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5. Errors were noted in the June 1968 performance calculation. Primary feedwater pressure and primary and secondary feedwater temperatures were incorrectly averaged, resulting in an overstatement of thermal output by 180 MWD. The adjustment to thermal power output will be included in the burnup calculations for the July 1 to December 31, 1968, period. Commonwealth Edison was advised that special material status reports would not be required.

A handwritten signature in cursive script that reads "James H. Joyner". The signature is written in dark ink and is positioned above the printed name.

James H. Joyner