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SURVEY OF ROLLING MILL USED BY  
BETHLEHEM STEEL CORPORATION  
LACKAWANNA, NEW YORK

Work performed  
by the  
Health and Safety Research Division  
Oak Ridge National Laboratory  
Oak Ridge, Tennessee 37830

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A radiological survey was conducted at the Bethlehem Steel Corporation Plant in Lackawanna, New York, on September 23, 1980, by representatives of Oak Ridge National Laboratory (ORNL). The subject of the radiological survey was a portion of the original 25.4-cm (10-inch) bar mill used in converting uranium billets into 3.8-cm rods. All radiation survey measurements taken during an earlier survey (see attachment, "Preliminary Survey of Bethlehem Steel, Lackawanna, New York") were within typical background levels. However, it was believed that a more detailed survey of the bar mill would be desirable.

The following conditions were present at the site of the bar mill at the time of the present survey: (1) the original bar mill used at the time of Atomic Energy Commission (AEC) activities was stored as scrap and was removed for recycling within the last six months; (2) the floor and pit where the bar mill was located during operations was covered by a new concrete floor varying in thickness up to a maximum of approximately 1 m; (3) the stand and shoe plates associated with the bar mill were removed and scrapped. The only remaining equipment at the Lackawanna Plant used during AEC activities is a shear used for cropping the 3.8-cm uranium rods. However, the shear was not located in its original location at the time of AEC-related operations.

Survey Results

A radiological survey was performed on the surfaces of the shear. Measurements included a gamma-scan of all accessible equipment surfaces, a beta-gamma scan of selected equipment surfaces, and alpha activity at random locations on equipment surfaces. All measurements taken of equipment surfaces resulted in no radiation levels significantly above background levels.

### Conclusions

Since all radiological measurements taken at the Bethlehem Steel Corporation Plant in Lackawanna, New York, have resulted in radiation levels within background levels, it is concluded that no present or potential radiation-related health hazards exists due to previous AEC-related activities. It is recommended that no further Department of Energy (DOE) radiological surveys be performed at this site and that it is released by DOE for unrestricted use.