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**FORMERLY UTILIZED SITES  
REMEDIAL ACTION PROGRAM**

**ELIMINATION REPORT  
FOR  
FORMER MCKINNEY TOOL AND MANUFACTURING COMPANY  
1688 ARABELLA ROAD  
CLEVELAND, OHIO**

January 1994

**U.S. Department of Energy  
Office of Environmental Restoration**

**Elimination Report  
Former McKinney Tool and Manufacturing Company**

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## INTRODUCTION

The Department of Energy (DOE), Office of Environmental Restoration, has reviewed the past activities of the Manhattan Engineer District (MED) and the Atomic Energy Commission (AEC) at the former McKinney Tool and Manufacturing Company in Cleveland, Ohio. The DOE has determined that the conditions at this site have little or no potential for contamination. Therefore, this site requires no remedial action and is no longer under consideration for inclusion in the Formerly Utilized Sites Remedial Action Program (FUSRAP).

The material in this report consists of information from documents supporting the determination that the radiological conditions at the former McKinney Tool and Manufacturing Company, currently owned and occupied by Meistermatic, Inc. and Parker Rustproof, Inc., are in compliance with DOE radiological guidelines (DOE, 1987) that are applicable to this site. This information provides assurance that use of this site will not result in any measurable radiological hazard to site occupants or the general public.

Through the Office of Administration and Human Resource Management, this elimination report is being placed in DOE's Freedom of Information (FOI) Public Reading Room in Washington, D.C. so that it will be accessible to the general public.

## BACKGROUND

### Site Function

During a period between 1943 and 1944, the Metallurgical Laboratory of the Manhattan Engineer District (MED) subcontracted with the McKinney Tool and Manufacturing Company to produce an alternative charge of uranium slugs for the Hanford reactor. The slugs were machined and ground from rods extruded from billets by the Revere Copper and Brass Corporation of Detroit, Michigan. Both subcontracts were to end when Hanford developed its metal production line.

### Site Description

The site occupied by the former McKinney Tool and Manufacturing Company, located at 1688 Arabella Rd. in Cleveland, Ohio, is now occupied by Parker Rustproof of Cleveland, which applies phosphate coatings to metal fittings at the site, and Meistermatic, Inc., which runs a machine shop at the site. The building on the site has a combination of brick and concrete walls, concrete flooring, and steel beams for roof support. Parker Rustproof occupies an approximate space of 10,000-15,000 sq. ft., portions of which have been renovated extensively. Meistermatic occupies an approximate space of 5,000 sq. ft., separated from Parker Rustproof by a wall of concrete blocks. The walls of the 25' x 30' section of the building where uranium work was performed have been removed and other

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remodeling has occurred. Most of the original machinery had been sold at auction and only a small heat-treating oven remains on the premises.

### Radiological History and Status

On April 9, 1981, a general preliminary survey was performed (Argonne National Laboratory, 1981) on the site formerly occupied by the McKinney Tool and Manufacturing Company by a team from the Argonne National Laboratory Survey Group. Because of equipment or storage in the area occupied by Meistermatic, less than 10% of the 5,000 sq. ft. area occupied by Meistermatic was surveyed. Approximately 15% of the area occupied by Parker Rustproof was surveyed for similar reasons. General gamma radiation levels in all areas were found to be 3-4  $\mu\text{R/h}$  which is identical to natural background gamma radiation levels. The only exceptions were gamma radiation levels of 6-7  $\mu\text{R/h}$ , found in the old brick load-bearing wall construction and 6-10  $\mu\text{R/h}$ , found in glazed wall and floor tile. These slightly raised levels were attributed to the natural radioactivity contained in brick and tile. No other radiation anomalies were discernible. Though it was determined that no apparent potential for radiation exposure above natural background levels existed at the site, a complete radiological assessment of the site was recommended, especially because certain upper areas of the building were inaccessible during the initial survey.

In 1990, Oak Ridge National Laboratory (ORNL) performed a radiological survey of the site. The ORNL report (ORNL, 1991) found that radiation levels and measured radioactivity at the site are not significantly different from normal background levels in Ohio. Slightly elevated uranium concentrations were found in a few samples of dust from overhead beams, but those concentrations were not significantly different from uranium concentrations in process chemicals (phosphates) used in the facility. In short, it was determined that no radioactivity relating to DOE's predecessor was found during the ORNL survey.

### ELIMINATION ANALYSIS

Based on the information presented above, the DOE has determined that there is little to no potential for radiological exposure beyond that associated with natural background radiation and, therefore, no remedial action is necessary at this site. The former McKinney Tool and Manufacturing Company site is, therefore, eliminated from the list of considered sites under the Formerly Utilized Sites Remedial Action Program.

### REFERENCES

1. Argonne National Lab, 1981: Notes and Comments on preliminary screening survey of McKinney Tool and Manufacturing Company, 1688 Arabella Rd., Cleveland, Ohio.

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2. U.S. Department of Energy, 1987: **Guidelines for Residual Radioactive Material at Formerly Utilized Sites Remedial Action Program and Remote Surplus Facilities Management Program Site. Revision 2, March.**
3. **Oak Ridge National Laboratory, 1991: Results of the Radiological Survey at the Former McKinney Tool and Manufacturing Company, 1688 Arabella Road, Cleveland, Ohio (MTC001 and MTC002), ORNL/RASA-91/7.**