

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 999-90003/94005(DRSS)

Docket No. 040-07327 (terminated)

License No. STB-841 (terminated)

Licensee: Wolverine Metal Company  
6500 E. Robinwood Avenue  
Detroit, Michigan 48234

Inspection At: Mason Iron and Metal Company  
(a former Wolverine Metal Company facility)  
6500 E. Robinwood Avenue  
Detroit, Michigan 48234

Inspection Conducted: January 31, 1994

Inspector: *D. G. Wiedeman*  
D. G. Wiedeman  
Senior Health Physicist

02/21/94  
Date

Approved by: *G. M. McCann*  
G. M. McCann, Chief  
Fuel Facilities and Decommissioning  
Section

02/21/94  
Date

Inspection Summary

Inspection on January 31, 1994 (Report No. 999-90003/94005(DRSS))

Areas Inspected: This was a special inspection to review the former licensee's activities and to determine if the facilities were adequately decontaminated prior to terminating the license. The inspector conducted independent radiation surveys in the location of the former licensee's processing areas. This inspection was part of an NRC project which evaluated approximately 17,000 retired licenses. An NRC contractor, Oak Ridge National Laboratories (ORNL), performed the evaluation. On the basis of the information in the retired license file, such as type and quantity of authorized materials and lack of adequate decontamination documentation, ORNL concluded that these facilities have a potential for residual radioactive contamination.

Results: The NRC inspector did not identify any radiation levels above background in or around the site formerly used by Wolverine Metal Company. Based upon the inspection findings, it was concluded that the site and one remaining building which was used for licensed activities meet the current NRC release criteria for release of facilities for unrestricted use.

## DETAILS

### 1. Persons Contacted

@\*Gary Archinal, Vice President, Wolverine Metal Company, Inc.  
\*Charles S. Mason, Owner, Mason Iron and Metal Company  
Ronald Grander, General Manager, Wolverine Metal Company  
\*Tom Gilhuly, Beechco, (lessee of portions of the property)  
\*Kenneth W. Coble, Health Physicist, Michigan Department of Public Health

\*Attended the exit meeting conducted on January 31, 1994.

@Telephone conversation on February 14, 1994, regarding the results of the laboratory analyses of samples collected during the inspection.

### 2. Background

AEC License No. STB-841 was issued to Wolverine Metal Company on July 27, 1965, for possession and use of six million (6,000,000) pounds of scrap metal containing not more than 5% source material (Attachment A). License activities included decontamination of metal equipment and smelting of alloys containing source material. In a letter dated June 14, 1978, the licensee requested that their license be terminated and provided a "Certificate of Disposition of Materials" which indicated adequate disposal of all licensed material. The license expired on June 30, 1978.

### 3. Facility Status

Mason Iron and Metal Company purchased their current facilities from Wolverine Metal Company in December 1981. Mason Iron and Metal Company is a supplier of scrap metal and finished metal products to industrial users. According to the representatives from Mason Iron and Metal Company and Wolverine Metal Company, all buildings formerly used for licensed activities at this site had been demolished during the past 15 years except for one building, the power house.

### 4. Independent Measurements

Background radiation measurements were taken in the downtown area of Detroit, Michigan with a Victoreen Model 190 and Ludlum Model 19 portable survey instruments. Background measured 45-55 counts/minute (cpm) with the Victoreen and 7-15 microroentgens/hour ( $\mu\text{R/h}$ ) (1.8-3.8 nanocoulomb per kilogram per hour) (nC/kg/h) with the Ludlum.

Independent radiation surveys were performed with a Victoreen Model 190 portable survey instrument with a Model RP-1 pancake probe, NRC Tag No. 0405020, and Ludlum Model 19, NRC Tag No. 015522, both calibrated on July 28, 1993. Prior to the surveys, both instruments were checked for accuracy and constancy with dedicated and traceable check sources. Both instruments responded as expected.

The inspector conducted radiologic surveys in and around the former processing areas at the site. The areas surveyed included the grounds where former buildings once stood and the only remaining building, the power house. The NRC inspector's survey of the above referenced building, parking lot and adjacent property did not identify any radiation levels above background except for a cloth like material which appeared to be a type of insulation material; however, this material was not from licensed activities. Two smear tests were taken on the floor of the power house and a sample of the insulation material was collected for further analyses. The smear tests showed no removable activity and the analyses of the insulation material indicated background radiation. Attachment B shows the areas surveyed and the survey results.

5. Exit Meeting

The NRC inspector met with the individuals identified in Section I of this report and summarized the findings of the inspection. The inspector informed the current and former property owner representatives that the survey results indicated that the facility (grounds and building) meet the current NRC release criteria for release of facilities for unrestricted use. The release criteria is described in NRC document titled "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material," dated August 1987. During the exit meeting with the current property owners and former licensee, none of the participants indicated to the inspector that any of the inspection findings or documents provided to the inspector were considered proprietary.

Attachments:

- A. AEC license dtd 6-17-68
- B. Survey results

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UNITED STATES  
ATOMIC ENERGY COMMISSION

SOURCE MATERIAL LICENSE

Pursuant to the Atomic Energy Act of 1954, and Title 10, Code of Federal Regulations, Chapter 1, Part 40, "Licensing of Source Material," and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, possess and import the source material designated below; to use such material for the purpose(s) and at the place(s) designated below; and to deliver or transfer such material to persons authorized to receive it in accordance with the regulations in said Part. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954 and is subject to all applicable rules, regulations, and orders of the Atomic Energy Commission, now or hereafter in effect, including Title 10, Code of Federal Regulations, Chapter 1, Part 20, "Standards for Protection Against Radiation," and to any conditions specified below.

Licensee		3. License No.
1. Name	Wolverine Metal Company	STB-841
2. Address	6500 E. Robinwood Avenue Detroit, Michigan 48234	4. Expiration Date
		June 30, 1973
		5. Docket No.
		40-7327
6. Source Material	7. Maximum quantity of source material which licensee may possess at any one time under this license	
Uranium and Thorium	Six million (6,000,000) pounds of scrap metal containing not more than 5% source material.	

CONDITIONS

8. Authorized use (Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.)

For use in accordance with the procedures described in the licensee's applications dated April 12, July 9 and 19, 1965, and June 10, 1968.

For the U. S. ATOMIC ENERGY COMMISSION

Date of issuance

WJA  
6/17/68  
JUN 17 1968

Don F. Harmon  
Division of Materials Licensing

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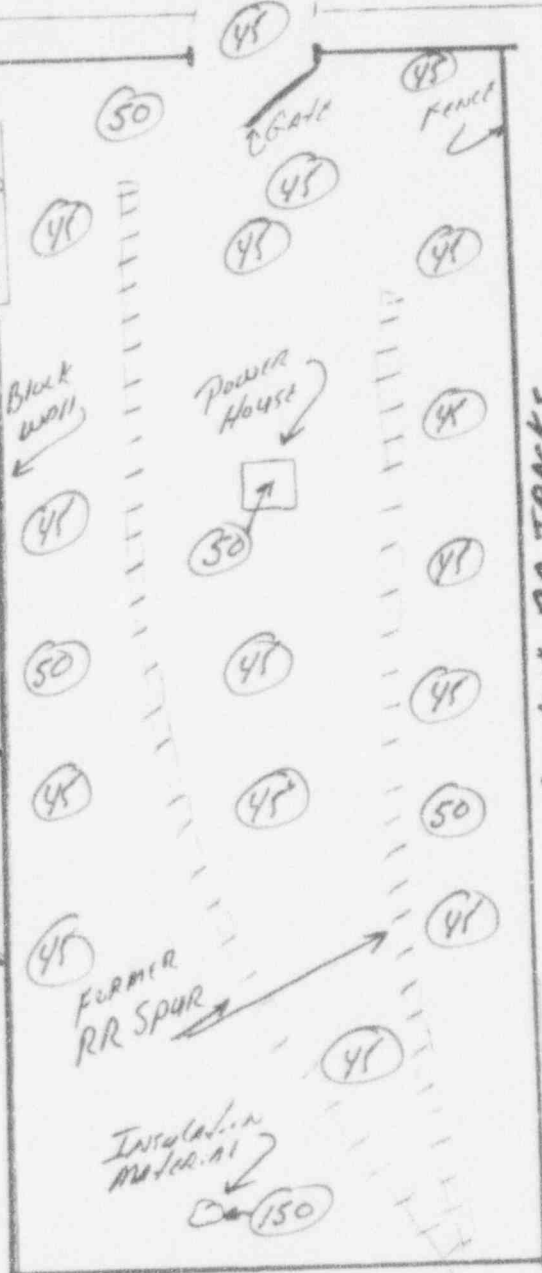


E. SEVEN MILE ROAD

N  
W + E  
S

WALK WAY

Building



Robinwood AVE.

FORMER OFFICE AREA  
6500 E. ROBINWOOD

DATE of SURVEY- 1/31/94  
 SURVEY INSTRUMENT- VICTOREEN 190 w/pancake probe  
 CALIBRATED- 7/28/93  
 SURVEY UNITS- COUNTS/MINUTE (cpm)  
 BACKGROUND- 45-55 cpm  
 SURVEY by: D. G. Wiedeman (accompanied by Michigan Dept. of Health)



ATTACHMENT B