



**US Army Corps
of Engineers®**
Buffalo District



PRELIMINARY ASSESSMENT / SITE INSPECTION

**Former Guterl Specialty Steel Corporation
Lockport, New York**

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1.0 INTRODUCTION

A combined Preliminary Assessment / Site Inspection (PA/SI) was performed, by the United States Army Corps of Engineers (USACE), on the former Guterl Specialty Steel Corporation site under the authority of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The purpose of this assessment was to review information in order to eliminate the site from further consideration if it poses no threat to public health or the environment and to determine if there is a need for further action by USACE, under the Formerly Utilized Sites Remedial Action Program (FUSRAP). The scope of the assessment included a review of existing information on the site (Attachment D), a site visit and a structural inspection.

From 1948 through 1956, large quantities of uranium and smaller quantities of thorium were processed under two separate contracts in support of the nation's early atomic energy program at the site of the former Guterl Specialty Steel Corporation. In 1958, the Atomic Energy Commission (AEC) performed a radiological survey to determine the need for remedial action at the site. Subsequent to decontamination, AEC performed a second survey to verify the success of remedial efforts. Following these actions, the site was released to the property owners. From 1956 to the present, site operations have not involved the use of uranium or thorium. (DOE 1979)

In 1974, FUSRAP was created to address sites used during the early atomic energy program that have contamination exceeding current regulatory requirements. In October 1997, Congress transferred management of FUSRAP to USACE.

The U.S. Department of Energy (DOE) determined the site is eligible for inclusion into the FUSRAP on May 19, 2000. Under the Memorandum of Understanding between USACE and the DOE, once this determination has been made by the DOE, responsibility for action is transferred to USACE (MOU 1999). USACE has performed this PA/SI as the first step in the CERCLA process.

2.0 SITE DESCRIPTION, OPERATIONAL HISTORY AND WASTE CHARACTERISTICS

2.1 Site Description

The former Guterl Specialty Steel Corporation site is located in Lockport, New York, which is approximately 20 miles north of the City of Buffalo. Refer to Page 30 of the ORISE 1999 report (Attachment A) for the site overview and location. Guterl Steel owned the site until bankruptcy was declared in 1983. In March 1984, Allegheny International (now known as Allegheny Technologies, Inc.) purchased all assets of Guterl Steel. The purchase included all areas of the site except the location of the principal buildings involved in the AEC operations (the excised property) and a landfill, which were both excised from the original property boundaries.

As a condition for purchase of the Guterl Steel property, Allegheny International required the buildings associated with AEC be not included in their purchase (or "excised"). The boundary of the excised area was based on the DOE 1979 report, a survey by the Allegheny International Health and Safety Department and Allegheny International's lack of need for the equipment and buildings. The excised property is now handled by the bankruptcy trustee originally responsible for the entire Guterl Steel site.

The excised property includes nine buildings, all of which existed between 1948 and 1956, and the landfill. The buildings are constructed of brick and sheet metal paneling with the majority of floors being compacted dirt. Some floor areas are covered by steel plates with cinders and dirt found underneath and the majority of AEC supporting equipment is still present. The nine buildings show obvious signs of needed maintenance. This section of the site is surrounded by a chain link fence. (ORISE 1999)

The remainder of the former Guterl Steel site, currently owned by Allegheny Technologies, includes some newly constructed buildings.¹ The landfill located on the former Guterl Specialty Steel property was used for the

¹ The DOE letter, stating the Guterl Site is eligible for FUSRAP, does not include the property owned by Allegheny Technologies, Inc..

disposal of waste from site operations occurring between 1962-1980 (subsequent to operations that supported AEC). However, even though the landfill was used subsequent to the AEC contracts, available information indicates that the material placed in the landfill may have come from areas used in support of AEC activities and could include AEC related contaminants. The landfill is currently an Inactive Hazardous Waste Disposal Site (NYSDEC 2000a).

2.2 Operational History and Waste Characteristics

Operational History

For the purposes of this assessment, the operational history of the former Guterl Specialty Steel Corporation will begin with the initiation of the first contract with AEC in 1948. The Simonds Saw and Steel Company, the owner of the site in 1948, processed 500,000 to 600,000 pounds of uranium a month through a 16 inch bar mill. This process consisted of heating and roll milling approximately 90% of the uranium on the 16 inch rolling mill and 10% on the 10 inch rolling mill, both located in Building A [corresponding to Buildings 6 & 8 in the ORISE Report, 1999] (DOE 1999). Small quantities of uranium were heated in the hammer forge shop of Building B [corresponding to Building 3 in the ORISE Report, 1999].² In 1952, this contract was terminated.

The second contract was initiated in 1952 and terminated in 1956. This contract was with National Lead of Ohio (NLO); who was contracted by AEC to provide feed materials to the Hanford site in Richland, Washington. The materials used in this process included depleted and 2.5% enriched uranium. During this timeframe, operations were decreased on the rolling mill.

Under both contracts, approximately 25-35 million pounds of uranium and approximately 30,000 to 40,000 pounds of thorium were subjected to the rolling mill process. (ORISE 1999)

In 1958, two years after termination of the contract with NLO, AEC completed a radiological survey to determine the need for remedial action. Contamination was discovered in the quench tank, used for cooling purposes, located adjacent to the rolling mills. This tank was removed and various areas were vacuumed and cleaned with soap and water. AEC completed a second survey that same year which verified the decontamination efforts and released the site back to the original owner. (DOE 1979)

From 1958 to the present, the Simonds Saw and Steel Company and the subsequent owner, Guterl Specialty Steel Corporation, performed various metal manufacturing activities. However, these activities have not involved the use of uranium or thorium. (DOE 1979)

Several radiological surveys have been performed for the Department of Energy (DOE 1979, DOE 1981), the U.S. Bankruptcy Court for Western District of Pennsylvania Court (ORISE 1999) as well as investigation conducted by the New York State Department of Environmental Conservation (NYSDEC 1999, NYSDEC 2000a, NYSDEC 2000b). The reports documenting these activities are reviewed and summarized in the following sections.

Waste Characteristics

The potential contaminants of concern associated with the AEC processes performed at Guterl Steel include uranium and thorium (and the associated daughter products) as well as industrial chemicals, such as metal working fluxes, solvents, fuel oil, acids and bases. The following sections will evaluate the potential for these AEC related contaminants of concern to release to identifiable targets through the applicable exposure pathways.

3.0 SOIL EXPOSURE AND AIR PATHWAYS

² Records indicate the majority of processes that supported the nation's early atomic energy program occurred in either Building A or B. The majority of uranium and thorium was processed on the rolling mills located in Building A.

3.1 Physical Conditions

The Guterl Steel site is located approximately one mile south of the Niagara Escarpment. The area is relatively flat with the unconsolidated layer of soil being less than 3 feet thick. Soils comprising the unconsolidated layer are silty loams developed on loamy glacial till and lacustrine deposits. These conditions demonstrate soils with low permeability in an area with a seasonably high water table. Large stones and boulders can be found on the surface layer with bedrock exposed approximately one mile to the southwest and west in limestone quarries. (DOE 1981)

3.2 Soil and Air Pathways

The potential receptors for this site, under current conditions, are an on-site worker and a trespasser. Each scenario includes the potential for individuals to be exposed to the potential contaminants of concern. The on-site worker scenario is used to account for limited warehouse duties which do not involve the disturbance of potential loose contamination. The trespasser scenario is unlikely due to the presence of perimeter fencing. Ecological receptors are limited at the site due to the abundance of asphalt pavement and lack of habitat. However, dirt floors within some buildings support the growth of ferns and moss and evidence of small mammals and birds were observed during site visits.

As stated in a report completed for the U.S. Bankruptcy Court for the Western District of Pennsylvania in 1999 (ORISE 1999), soils were radiologically surveyed by several methods. Numerous areas throughout the interior and exterior of buildings, used to support AEC activities, were surveyed to determine if radiological activity exists above background. Furthermore, 232 surface samples (0-15cm), 147 subsurface (ranging from 120-180cm) and 6 sediment samples were collected from the former Guterl Steel site. The majority of the samples were taken within the excised property and more specifically inside the potentially impacted buildings. Sample locations were systematic and biased, as determined by elevated readings through scanning procedures. Refer to Table 1.0 for a general summary of the results. The survey results can be found in detail in Attachment A.

According to ORISE 1999, NYSDEC 2000b and the NYSDEC 1999 reports, samples were collected and radiological surveys were conducted on the landfill and other biased areas throughout the Allegheny Technologies property. The results of both efforts indicate areas on the landfill exceeding 100 pCi/g Uranium-238 (U-239) and 5 pCi/g Thorium-232 (Th-232). Furthermore, biased samples taken along the northern portion of the Allegheny Technologies property also indicate the presence of U-238 and Th-232 above background.³ (ORISE 1999)

The U.S. Environmental Protection Agency (USEPA) also conducted investigations on the former Guterl Steel site, documented in USEPA 2001. The USEPA concluded low level radionuclide contamination is present in site soils resulting from the uranium processing. The USEPA 2001 data package also documents a removal action in 1996 and 1997. A pallet containing several lab packs of zirconium oxide, calcium oxide and hafnium oxide were radiologically surveyed by the USEPA. Upon finding no elevated readings, the lab packs were returned to the manufacturer.

³ ORISE 1999 states general background concentrations for the Lockport Area as 1.5 to 2.0 pCi/g for U-238 and 1.0 to 1.1 pCi/g for Th-232. These levels were obtained from DOE 1981.

Table 1.0: Summary of the radiological soil sampling detailed in ORISE 1999.

SAMPLE TYPE		RANGE OF RADIONUCLIDE CONCENTRATIONS (pCi/g)			
		Ra-226	Th-232	U-235	U-238
SURFACE	Interior of Buildings	<0.1 - 8.4	<0.1 - 442	<0.1 - 796	<4.1 - 41,600
	Exterior of Buildings	<0.1 - 3.0	<0.1 - 1.5	<0.1 - 2.6	<2.4 - 36.2
	Outside of the excised area	<0.1 - 9.7	<0.2 - 2.2	<0.3	<15
SUBSURFACE	Exterior of Buildings	<0.1 - 2.1	<0.3 - 371	<0.2 - 105.7	<4.4 - 17,780
SEDIMENT		<0.1 - 0.2	<0.1 - 1.2	0.2 - 3.9	3.8 - 96.8
BIASED		<0.1 - 21.0	<0.3 - 307	<0.3 - 1,079	<8.6 - 54,800

NYSDEC documents additional investigation of the Guterl Steel soil in the "Immediate Investigative Work Assignment Report," October 2000 (NYSDEC 2000a). NYSDEC completed the work to determine the presence and extent of hazardous waste within the excised portion of the property. The results of this investigation indicate surface and subsurface soils contain moderate to low levels of heavy metals (lead) and organic contaminants (phenol and polycyclic aromatic hydrocarbons). Analytical data can be found in the Appendices of NYSDEC 2000a.

3.3 Soil Exposure and Air Pathway Conclusions

In conclusion, the presence of AEC related waste in the soil can be confirmed at the former Guterl Specialty Steel site. Based on numerous radiological sample results of surface and subsurface soils, there are releases at the site related to past work in support of the AEC that have potential to pose a significant threat to human health or the environment. The potential for release into the air pathway is low because currently access to the impacted areas is limited preventing disturbance of loose contamination.

Further investigation should be conducted to determine the presence of non-radiological waste associated with AEC activities within the excised area.

4.0 GROUND WATER PATHWAY

4.1 Hydrogeologic Setting

The Lockport Dolomite Group is the major aquifer for the Lockport area. In this area, ground water can be seasonably high; reaching within 1.5 to 2 feet of the surface. The water bearing zones tend to be high in minerals and consist of vertical and bedding joints and small solution cavities. The bedding plane joints tend to form other zones which may form artesian aquifers. (DOE 1981)

4.2 Ground Water Pathways

Ground water usage can be considered limited at best. The City of Lockport has two sources of water, a local water treatment facility and the county's water supply system. The county supply system is utilized only during times of peak usage. The Niagara River supplies both of the systems with the necessary raw water.

The majority of residents in the area are supplied by the county water system; however, in the southeastern portion of Lockport some wells are used. The Guterl Steel site is located in the western portion of Lockport, with the majority of groundwater flowing east from the excised portion of the property, towards the Barge Canal. Smaller quantities of groundwater flow west from the excised area (NYSDEC 2000a).

NYSDEC conducted groundwater sampling in NYSDEC 2000a that indicates low levels of organic constituents. However, results of up-gradient groundwater sampling indicates the source is not the excised area of Guterl Steel (NYSDEC 2000a). Previous analytical testing did not include radiological constituents.

4.3 Ground Water Pathway Conclusions

Based on hydrogeologic conditions at the site and waste characteristics, the ground water can not be eliminated from further consideration because there is a release that may have reached the groundwater which could pose a significant threat to public health or the environment. Due to the distance of potable water wells from the site, potential exposure is limited. Furthermore, groundwater usage is limited due to the water service provided by the City of Lockport.

Further information is required to confirm the hydrogeologic conditions at the site. Limited ground water samples should be collected to determine if this pathway has been impacted.

5.0 SURFACE WATER PATHWAY

5.1 Hydrologic Setting

The site is basically flat with a slight slope to the north. On the southern end of the site, the Barge Canal runs from the southwest to the northeast. North of the site, Gulf Creek flows towards the Eighteen Mile Creek. In general, this area of Lockport is found to have poor drainage. Due to low soil permeability, there is a high potential to collect water from precipitation and overland drainage.

5.2 Surface Water Pathways

Drainage of the Guterl Steel site is to the north. During periods of high precipitation, overland runoff flowing to the north could reach Gulf Creek, a tributary of Eighteen Mile Creek. From this point, the Eighteen Mile Creek reaches Lake Ontario in approximately 12 miles. The Barge Canal is located just south of the site. Due to a slightly higher elevation, this point is unlikely to be affected by surface runoff from the site.

5.3 Surface Water Pathway Conclusion

Based on the hydrologic setting and waste characteristics, the surface water can not be eliminated from further consideration because there is a release that may have reached the surface water which could pose a significant threat to public health or the environment. Potential exposure is limited by accounting for the distance of targets from the site and the limited potential for transport of contaminants through this pathway.

Soil samples should be collected at or near the perimeter of the excised property to conclusively determine if contamination has transported off-site via surface water. Furthermore, additional investigation is required in drains located throughout the buildings, in the excised portion of the site, and areas within and around the perimeter of the landfill.

6.0 BUILDING EXPOSURE PATHWAYS

6.1 Physical Conditions

Based on the review of existing data and historical records, Building 6 and 8 of the nine buildings, located within the fenced area, were utilized for the rolling mill operations. In addition, approximately 15-20 ingots were

processed in the hammer forge shop in Building 3. The remaining buildings (1, 2, 4, 5, 9, 24, and 35) were included in the DOE 1979 and ORISE 1999 radiological surveys due to their existence during the AEC operations.

Due to the age of the buildings and neglect over the years, obvious signs of deterioration were observed during the site visit. Broken windows, deteriorating structures and loose debris comprise the majority of the buildings. A structural inspection was performed by USACE personnel on October 20, 2000. Please refer to Attachment B.

6.2 Building Targets

Currently the buildings are vacant with the exception of the northern portion of Building 24. The northern portion of Building 24 is separated from the remaining buildings by a sheet metal wall. This area is used by Allegheny Technologies for limited warehouse space. For the most part, access is limited and restricted to all but authorized personnel.

Each of the buildings were subjected to a radiological survey and summarized in ORISE 1999. While Building 8 exhibited the majority of elevated readings (as compared to the survey results as a whole) several other buildings (1-4 and 9) also showed signs of potential contamination. Building 5, 35 and the northern portion of Building 24 did not exhibit any signs of elevated activity through the scanning procedures or soil samples. A general summary of the soil sample results can be found in Table 1.0. A more detailed explanation of the results can be found in Attachment A.

6.3 Building Conclusions

Based on the review of DOE 1979, DOE 1981 and ORISE 1999 there is a substantial threat of release of AEC related residual radioactivity from Building 6 and 8 on the former Guterl Specialty Steel site which may pose a threat to the public health or the environment. However, due to the perimeter fencing and limited access to the building there is no immediate threat. Further investigation should be conducted of Building 1-5, 9, 24 and 35 to further determine if residuals from the nation's early atomic energy program pose a substantial threat of release.

7.0 SUMMARY AND CONCLUSIONS

Based on the review of existing data, the U.S. Army Corps of Engineers has determined there is not a current threat to human health, safety and the environment at the former Guterl Specialty Steel site. However, because of the potential for the contaminants to pose a threat to human health and the environment in the future, it is recommended this site proceed to a Remedial Investigation to further characterize radioactive residuals associated with AEC activities.

Specific recommendations and conclusions include the following:

- Based on the review of existing data and current conditions of the former Guterl Steel site, an immediate or emergency removal action is not necessary to protect human health or the environment.
- Based on the numerous data collected by the DOE and United States Bankruptcy Court for Western District of Pennsylvania, it is recommended future investigation be conducted within the excised property of the former Guterl Specialty Steel Site, including surface and subsurface soils.
- Specific areas outside of the fenced perimeter in the ORISE 1999 report exhibiting elevated activity during the radiological survey should be confirmed by re-sampling the locations. Future investigation should be conducted to conclusively determine the presence of any contaminated areas outside of the excised property (including but not limited to the landfill, other isolated areas within the Allegheny Technologies property and any potentially affected bordering properties documented by NYSDEC 1999 and NYSDEC 2000b).
- Further information is required to confirm the hydrogeologic conditions at the site. Ground water samples should be collected to determine if this pathway has been impacted.

- Samples should be collected at or near the perimeter of the excised property to conclusively determine if contamination has transported off-site via surface water. Furthermore, additional investigation is required in drains located throughout the buildings in the excised portion of the site.
- Further investigation should be conducted within the fenced area to determine the presence of industrial chemicals that may be related to the AEC activities.
- The perimeter fencing should be inspected and locked for security purposes to further ensure limited access to buildings used to support the AEC activities.

ATTACHMENT A

Radiological Survey of the Guterl Specialty Steel Corporation, prepared by Oak Ridge Institute for Science and Education for United States Bankruptcy Court for Western District of Pennsylvania, December 1999.

ATTACHMENT B
STRUCTURAL INSPECTION

FUSRAP - GUTERL SPECIALTY STEEL CORPORATION, LOCKPORT, NY
STRUCTURAL INSPECTION
EXCISED BUILDINGS NUMBERS 1-6, 8, 9, and 35

1.0 EXECUTIVE SUMMARY: At the request of Project Manager [REDACTED] and Project Scientist [REDACTED], a structural inspection was made of all the excised buildings at the Guterl Specialty Steel Corporation. While taking a quick tour of all buildings, no building was noticed as having severe structural deficiencies. This mainly visual, non-destructive inspection was performed in accordance with standard USACE guidance for inspection of structures. Please note that the purpose of this inspection was to evaluate the structural condition of the buildings on site and note any other hazards. Others hazards (i.e. chemical, toxic, hazardous, radiological, etc.) are outside the scope of this structural inspection.

Access inside these buildings is already limited by a locked gate and perimeter chain-link fence, but a formal program should be established to limit the entrance of anyone into these structures.

2.0 STRUCTURE INSPECTIONS:

2.1 General - On 20 OCT 00, both the exterior and the interior of all nine excised buildings were visually inspected by [REDACTED] of the Civil/Structural Design Team and [REDACTED] Project Scientist from the Environmental Analysis Team. See Figure 1 for a plan of the site. All these buildings were utilized by the Atomic Energy Commission (AEC) between 1948 to 1956 to mechanically work radioactive metals into desired shapes. Information is sketchy as to the specific rolling activities, but ingots were forged and some rods were also rolled at this facility. No structural drawings of the existing buildings were available prior to this inspection. Allegheny Ludlum Corporation personnel were asked to explore their records for any structural drawings. No drawings have been supplied to USACE to date.

2.2 Inspection Procedure - The procedures for inspection followed the standard USACE guidelines established for post disaster response inspection and published by the Applied Technology Council (ATC). An exterior and interior visual inspection was performed of each building unless otherwise stated.

2.3 Building Number 1

2.3.1 Construction Date: 1913

2.3.2 Structure Size: approximately 87,800 sf (815 sm)

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2.3.3 Structure Type: Masonry with metal framing system. The exterior walls are brick masonry. They appear to be of modular brick with the nominal dimensions 2-2/3" x 4" x 8". The brick work is of the "Common" (or "American") bond. Headers (bricks aligned with the longest dimension perpendicular to the wall face) are spaced every fifth or sixth course. This type of wall is easy to construct and is one of the strongest arrangements for a brick wall. It is very typical in masonry construction for manufacturing facilities for the last 120+ years.

2.3.4 Structure Use/History: Metal Smelting

2.3.5 Observations: Massive holes/openings are present in the corrugated metal roof. See Photograph 8. This building is divided up into a large mill area and several small rooms.

One of the rooms may have been an electrical controls and/or smelting room. See Photograph 9. There is a lower level present in the South Room of Building One. Due to the lack of proper lighting and PPE, and the presence of standing water (or other unknown fluid) no attempt was made to investigate this lower level. See Photograph 10. The south work room in Building 1 is apparently used as an insulation stockpile room. See Photographs 11 and 12. Some of this insulation is still in its original wrapper and should be assumed to contain asbestos until proven otherwise.

2.3.6 Specific Conclusions/Recommendations: Loose parts of the corrugated metal roof create a non-structural hazard. Extreme care should be practiced when inside this larger bay area. The lower level should be investigated with only the proper caution and PPE. This area should also be roped off to avoid someone stumbling down the stairs. The structural integrity of exterior and masonry wall and interior steel frame system appears adequate. A detailed evaluation of the roof trusses was not performed since access up to the trusses was not possible. No apparent structural deficiencies were discovered with Building 1.

Non-structural deficiencies are the major concern.

2.4 Building Number 2

2.4.1 Construction Date: 1914 approximately

2.4.2 Structure Size: approximately 68,900 sf (6,400 sm)

2.4.3 Structure Type: Masonry exterior walls with metal interior frame system. The exterior walls are consist of

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modular brick and are the "Common" (or "American") bond.

2.4.4 Structure Use/History: Metal

Rolling/Manufacturing

2.4.5 Observations: Massive holes are present in the corrugated sheet metal roof. See Photograph 1. More corrosion seems present in this building than in Building 1. Most metal rolling/mill buildings produce incredible amounts of heat, which in turn produces moderate to heavy amounts of condensation. This condensation can, in turn, produce substantial amounts of corrosion. This building may have experienced this phenomenon. Years of exposure to the elements may also attribute to the corrosion witnessed. Although the corrosion in Building 2 is higher than in the other excised buildings, it does not appear to be detrimental to the structural stability of Building 2. See Photographs 2-7.

2.4.6 Specific Conclusions/Recommendations: No significant structural distresses present in Building Number 2.

2.5. Building Number 3

2.5.1 Construction Date: 1920

2.5.2 Structure Size: approximately 67,800 sf (6,300 sm)

2.5.3 Structure Type: Metal Frame System with Brick Masonry Walls.

2.5.4 Structure Use/History: Metal Rolling and Grinding. ORISE (Reference 4.5) states that several small lots of uranium bars were "run through" the 10-inch rolling mill and approximately 15 to 20 ingots were processed in the hammer forge shop in Building 3.

2.5.5 Observations: Some small holes openings in the roof. Potential for falling pieces of roofing presents a non-structural hazard. Some unknown fluorescent yellow material seems to be deposited at the end of the remnants of some type of production area. See Photograph 14. Several trenches are present and they are uncovered or are covered but have simple plywood spanning over them. Care should be taken in and around all trenches. No exploration was made of these trenches during this inspection. The smokestack above the south section of Building 3 has deteriorated. Some of the insulation brick is beginning to crumble and is another falling hazard.

2.5.6 Specific Conclusions/Recommendations: No

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significant structural distresses present in Building Number 3. Recommend roping off the exterior south east area of this building until the smokestack is brought down.

2.6 Building Numbers 4 & 9

2.6.1 Construction Date: 1920 & 1918, respectively

2.6.2 Structure Size: Number 4 approximately 28,000 sf (2,600 sm) and Number 9 approximately 19,400 sf (1,800 sm)

2.6.3 Structure Type: Metal Frame System with Masonry Walls.

2.6.4 Structure Use/History: Metal Rolling/Manufacturing and Loading Dock

2.6.5 Observations: Some very small holes openings in the roof. Potential for falling pieces of roofing presents a non-structural hazard. See Photographs 16-21. Some coating or material seems to be peeling off the roof. The structural impacts from the loss of this material is unknown. (Could this be fire insulation?) The potential health impacts are also unknown.

2.6.6 Specific Conclusions/Recommendations: No significant structural deficiencies are present. Access to this building should not be limited solely due to structural and non-structural deficiencies.

2.7 Building Number 5

2.7.1 Construction Date: 1918

2.7.2 Structure Size: approximately 3,770 sf (350 sm)

2.7.3 Structure Type: Metal Frame System almost entirely encapsulated by Building Numbers 4 & 9 and 6 & 8.

2.7.4 Structure Use/History: Housed the Heat Exchanger

2.7.5 Observations: No significant structural distresses were observed during this inspection.

2.7.6 Specific Conclusions/Recommendations: Since no significant structural deficiencies are present, access to this building should not be limited solely due to structural and non-structural deficiencies.

2.8 Building Number 6 & 8

2.8.1 Construction Date: 1918

2.8.2 Structure Size: Number 6 approximately 10,400 sf (970 sm) and Number 8 approximately 24,800 sf (2,300 sm)

2.8.3 Structure Type: Metal Rolling and Loading Dock.

2.8.4 Structure Use/History: 10" and 16" Rolling mills (used in Uranium and Thorium rolling) In these buildings,

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between approximately 30,000 to 40,000 pounds of thorium and approximately 12,500 to 17,500 tons of uranium were rolled between 1948 and 1956. The ORISE report (See Reference 4.5) states that most of the rolling of uranium occurred in Building 8 on the 16-inch rolling mill.

2.8.5 Observations: Most of this area was "roped off" with Danger Radioactive signs and no entrance to this area was made during this inspection. Although the eastern side of these buildings was inspected along the interface with Building Number 3 See Photograph 15. Although some corrosion exists on the original columns and later installed columns that support the roof, this corrosion does not threaten the stability of the columns or the roof trusses they support. Several areas also have uneven walking surface. It appears as though heavy vehicles have caused the sub-based material to compress and have caused ruts on the laid brick floor. Caused should be exercised near Building Numbers 6 & 8.

2.8.6 Specific Conclusions/Recommendations: A more detailed structural inspection, with the correct PPE and HP supervision, is required for both these buildings if more information is desired.

2.9 Building Number 35

2.9.1 Construction Date: 1950

2.9.2 Structure Size: approximately 4,400 sf (410 sm)

2.9.3 Structure Type: Masonry (brick and CMU wall) and Metal (probably steel) Framing System

2.9.4 Structure Use/History: Metal Rolling and Grinding.

2.9.5 Observations: Although some minor water damage is present in both the exterior mortar and brick near the northeast corner of the building, no deficiencies can be found. The interior also is very good condition. See Photograph 13.

2.9.6 Specific Conclusions/Recommendations: No significant structural deficiencies are present. Access to this building should not be limited solely due to structural and non-structural deficiencies.

3.0 GENERAL CONCLUSIONS/RECOMMENDATIONS: It is not known what the future use for these buildings nor is the probably remediation of them known at this time. As a bare minimum, the following conclusions and recommendations are suggested:

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3.1 **CONCLUSION 1** - All buildings are currently structurally stable given the findings of this structural inspection. Most deficiencies are non-structural in nature (i.e. hanging parts of roofing that may fall and cause injury). Without fixing the roof, deterioration of the roof will continue and cause a greater hazard of falling roof panels. Taken to an extreme, eventually the roof trusses will be exposed to weather and they will also collapse.

RECOMMENDATION 1 - If it is desired that buildings should remain and people will be working inside, the loose roofing should be removed and the holes should be fixed to protect the remaining parts of the metal frame system of the building. Even if nothing is done to the roofing for any of the buildings, a structural inspection should be performed on the roofing especially after a significant season of rain or snow or other substantial act of nature. Special attention of any further deterioration should be noted.

3.2 **CONCLUSION 2** - Access to almost all the roof trusses supporting the roof were inaccessible, therefore no detailed structural inspection was performed. **RECOMMENDATION 2** - Once again, if people are going to spend extensive amounts of time inside these structures a detailed structural inspection of the roof trusses should be performed.

3.3 **CONCLUSION 3** - There is little or no fire protection in any of these buildings. Additionally, these buildings were designed and constructed long before any seismic design criteria were developed for this region of the country. There is no evidence that any of the buildings comply with the current seismic requirements. Either a seismic event or fire, nor matter how apparently mild they may be, can potentially cause significant damage to any of these buildings.

RECOMMENDATION 3 - If a fire or seismic event occurs, a structural evaluation should be made before people are allowed entrance into these buildings.

3.4 **CONCLUSION 4** - There are numerous trenches (both covered and open), elevated walkways, ladders, and uneven walking surfaces that are potential hazards. **RECOMMENDATION 4** - Coordinate with the District Safety Officer on how to limit access and or provide a site safety briefing prior to individuals entering any buildings. [REDACTED] will supply this report to, and meet with, the Safety Officer to address

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this item.

3.5 **CONCLUSION 5** - There are several other chemical hazards that may be encountered besides just the radioactive remediation that USACE will be exposed to. During the rolling of steel and other metals, various chemicals (in gas, liquid, or solid form) are used to involve various properties on the metal being processed. Examples are 1) quenching - which is the process of rapid cooling of metals immediately after rolling to produce certain characteristics, and 2) acid baths - which help clean the finished surface of the metal being rolled. Both these and other processes that were probably performed at this facility may have left some toxic chemicals on site or, even worse, may even be mixed in with the radioactive material. Additionally, petroleum was also used for lubricating the metal rollers that produce the final metal product. Petroleum based and other toxic chemical products were also commonly used in rolling and milling shops to help "clump" and keep down tailing and millings. Any or all of these potential contamination sources can be present on the floors, floor drains, and in the various trenches on site.

RECOMMENDATION 5 - Project Delivery Team members should be made aware of this potential difficulty so that there will be no surprises when it comes to remediation of this site.

3.6 **RECOMMENDATION 6** - Although the value or potential of any of these buildings is unknown, recommend serious consideration of demolition of building since rehabilitation and retrofitting of these structures will be substantially cost prohibitive, apart from any the remediation that is performed. Additionally, the costs to investigate and characterize each building may be quite substantial, not to mention any temporary repairs or rehabilitations these buildings may require during remediation.

3.7 **RECOMMENDATION 7** - There is an existing masonry building (Building 48) that this just outside the Guterl Facility fence. This building may be an excellent Field Office during the remediation of this site. It currently has electrical power and its own access to Ohio Street. Recommend revisiting this idea as actual field operations come closer.

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4.0 REFERENCES:

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4.2 ATC 20-2 Addendum to ATC-20 Postearthquake Building Safety Evaluation Procedures, 1995.

4.3 ASCE Standard, Guideline for Structural Condition Assessment of Existing Buildings, ANSI/ASCE 11-90, ANSI Approved August 1, 1991.

4.4 The Federal Connection: A Military History of U.S. Military Involvement in the Toxic Contamination of Love Canal and the Niagara Frontier, New York State Assembly Task Force on Toxic Substances, Volumes I and II, 29 JAN 1981.

4.5 Radiological Survey of the Guterl Specialty Corporation Lockport, New York, Final Report, Oak Ridge Institute for Science and Education (ORISE), December 1999.

4.6 Applied Structural Design of Buildings, Third Edition, Thomas McKaig, McGraw-Hill Book Company, 1965.

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Photograph 1 - Building 2 - East Interior Wall Center Section



Photograph 2 - Building 2 - East Interior Wall Connection & Roof

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Photograph 3 - Building 2 - Roof

Photograph 4 - Indistinguishable - not included

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Photograph 5 - Building 2 - Typical Built-up Column

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Photograph 6 - Building 2 - Typical Roof openings

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Photograph 7 - Building 2 - Overall Building View facing north

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Photograph 8 - Building 1 - Typical Roof Openings

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Photograph 9 - Building 1 - Center Room facing north

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Photograph 10 - Building 1 - South Room facing north
Note access down to pit or trench

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Photograph 11 - Building 1 - Insulation Close-up in Work Room

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Photograph 12 - Building 1 - Work Room Insulation Stockpile

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Photograph 13 - Building 35 - facing north

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Photograph 14 - Building 3 - North Section - East Wall near Building 8 - Post rolling debris/waste?

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Photograph 15 - Buildings 6 & 8 - Typical Built-up Columns along Building 3 interface - facing south - Note furnace in background

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Photograph 16 - Buildings 4 & 9 - Typical roof trusses, vents, and roof openings

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Photograph 17 - Buildings 4 & 9 - Typical roof openings

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Photograph 18 - Buildings 4 & 9 - Facing north at Loading Dock Area

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Photograph 19 - Buildings 4 & 9 - Typical peeling of roof material

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Photograph 20 - Buildings 4 & 9 - Typical peeling of roof material

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Photograph 21 - Building 4 & 9 - Typical Built-up
Column

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Photograph 22 - Building 3 - South Smokestack Deterioration

ATTACHMENT C
DOE Eligibility Letter



Department of Energy

Washington, DC 20585

May 19, 2000

Major General [REDACTED]
Director of Civil Works
U.S. Army Corps of Engineers
Department of the Army
Washington, D.C. 20314-1000

Dear General [REDACTED]:

This letter is in follow up to a phone conversation between Department of Energy (DOE) and Army Corps of Engineers (USACE) staff concerning the potential eligibility of the former Guterl Specialty Steel site (formerly, Simonds Saw and Steel site) in Lockport, New York, for inclusion in the Formerly Utilized Sites Remedial Action Program (FUSRAP). The site is currently under the custody of a bankruptcy trustee.

The former Manhattan Engineer District (MED) and the former Atomic Energy Commission (AEC) used this site for atomic energy defense activities. Usage of these facilities ended during the 1950s. The facility was used for foundry work on uranium and thorium metal. The metals were heated in ovens and then were rolled, extruded, or otherwise shaped using metallurgical methods. The site owner has since declared bankruptcy and has been dissolved. The State of New York, the U.S. Environmental Protection Agency, the Department of Commerce, and the bankruptcy trustee have contacted the DOE regarding concerns about residual radioactivity at this site.

Pursuant to these concerns, the DOE and the bankruptcy trustee funded the conduct of a radiological survey of the site by the Oak Ridge Institute for Science and Education, and a copy of the radiological survey report is enclosed. The contaminants of concern from MED and AEC activities might include industrial chemicals (metal working fluxes, solvents, fuel oil, acids, bases, etc.) and radioactive substances (e.g., thorium and uranium).

Section III.D.1. of the Memorandum of Understanding (MOU) between DOE and the USACE regarding the program administration and execution of the FUSRAP provides that the DOE:

- a. Shall perform historical research and provide a FUSRAP eligibility determination, with historical references, as to whether a site was used for activities which supported the Nation's early atomic energy program;

- b. Shall provide USACE with the determination, a description of the type of processes involved in the historical activities at the site, the geographic boundaries of those activities (as reflected by documentation available to DOE), and the potential radioactive and/or chemical contaminants at the site; and
- c. Shall maintain records of determination of eligibility and other files, documents, and records associated with the site.

In accordance with the MOU, the DOE has performed historical research regarding the former Simonds Saw and Steel site and has concluded that this site was used for activities which supported the Nation's early atomic energy program. Some historical information supporting this conclusion is enclosed. Additional historical information is being prepared by my staff for transmittal to your staff.

Accordingly, the former Simonds Saw and Steel site would be eligible for inclusion in the FUSRAP if the Corps determines, under Section III.D.2 of the MOU, that response action under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 is required to address FUSRAP-related contamination at the site.

Please call me on [REDACTED] if you would like to discuss this issue or if you would like further information related to the sites.

Sincerely,

[REDACTED]

Deputy Assistant Secretary
for Site Closure

Enclosure

cc w/o enclosure:

[REDACTED], DOC

[REDACTED], DOJ

[REDACTED], DOJ

[REDACTED], New York Assistant Attorney General

[REDACTED], GC-51

ATTACHMENT D

REFERENCES

REFERENCES

- DOE 1979. *Formerly Utilized MED/AEC Sites Remedial Action Program, Radiological Survey of the Former Simonds Saw and Steel Co, Lockport, New York*; U.S. Department of Energy, November 1979.
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- EPA 1991. *EPA Guidance for Performing Preliminary Assessments Under CERCLA*, Publication 9345.0-01A, September 1991.
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- USEPA 2001. USEPA transmittal of information to USACE regarding the Guterl Steel Site, United States Environmental Protection Agency, March 16, 2001.