



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



# ***DERP-FUDS Fact Sheet***

## ***Former Lake Ontario Ordnance Works Niagara County, New York***

### ***Contaminated Material Storage Area (CMSA) Pad***

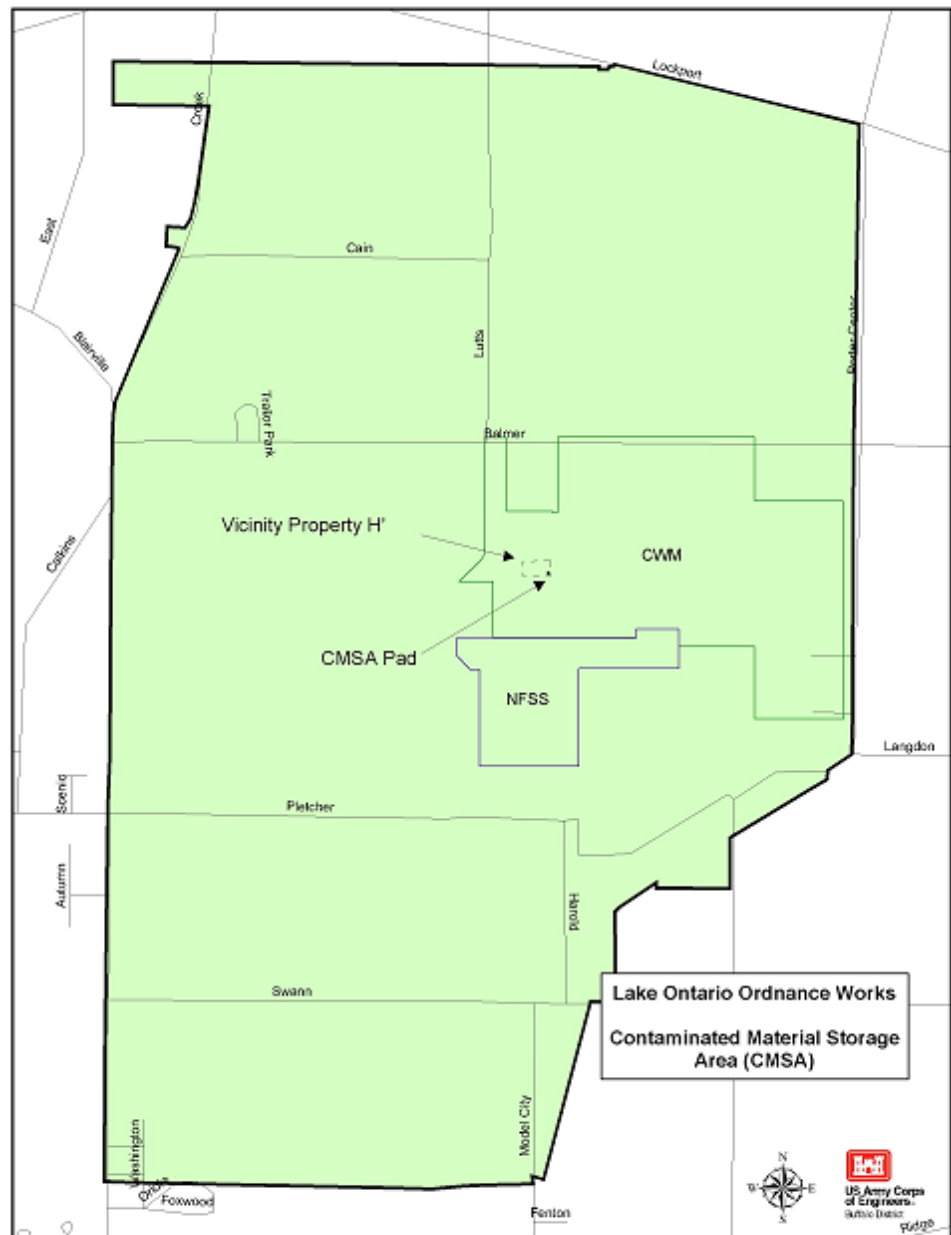
May 2005

*This fact sheet was compiled to present information about the radiological findings on the CMSA pad at the former Lake Ontario Ordnance Works (LOOW) located in Niagara County, New York.*

### **Brief Site Description and History**

The former LOOW is a 7,500-acre Defense Environmental Restoration Program, Formerly Used Defense Site (DERP-FUDS) located in the towns of Lewiston and Porter, New York. The former LOOW was built for the purpose of manufacturing trinitrotoluene (TNT) during World War II. The TNT production, production support, and storage areas were constructed on approximately 2,500 acres. The remaining 5,000 acres, located to the west of the production area, were left undeveloped. The TNT plant was decommissioned in July 1943 due to excess production at other TNT plants after only nine months of operation. In 1945, the 5,000 acres outside the production areas were declared excess and transferred to the General Service Administration (GSA) for resale to private landowners.

Since the 1940s, the government and private landowners have used the 2,500-acre former TNT production and storage area for various activities, including: borane fuel plants (Air Force Plant [AFP]-68), a Navy Interim Pilot



Production Plan (IPPP), jet engine testing facilities (AFP-38), a Nike missile facility, chemical and radioactive waste storage facilities (Niagara Falls Storage Site [NFSS]), municipal and hazardous waste landfills, and the testing of experimental communications equipment. As Department of Defense (DOD) operations decreased, the property was sold. Environmental investigations have confirmed Department of Defense-related contamination in several areas. Current owners of the site include local and federal governments, residential and agricultural areas, and private corporations. The Manhattan Engineer District and its successor, the Atomic Energy Commission (AEC), have used portions of the former LOOW for storage of radioactive wastes from approximately 1944 to the present. These wastes were primarily residues from uranium processing operations. The wastes were consolidated onto a 191-acre portion of the site currently owned by the Department of Energy. This facility is known as the Niagara Falls Storage Site (NFSS), and is being addressed under the Formerly Utilized Sites Remedial Action Program (FUSRAP).

**CMSA Pad Description**

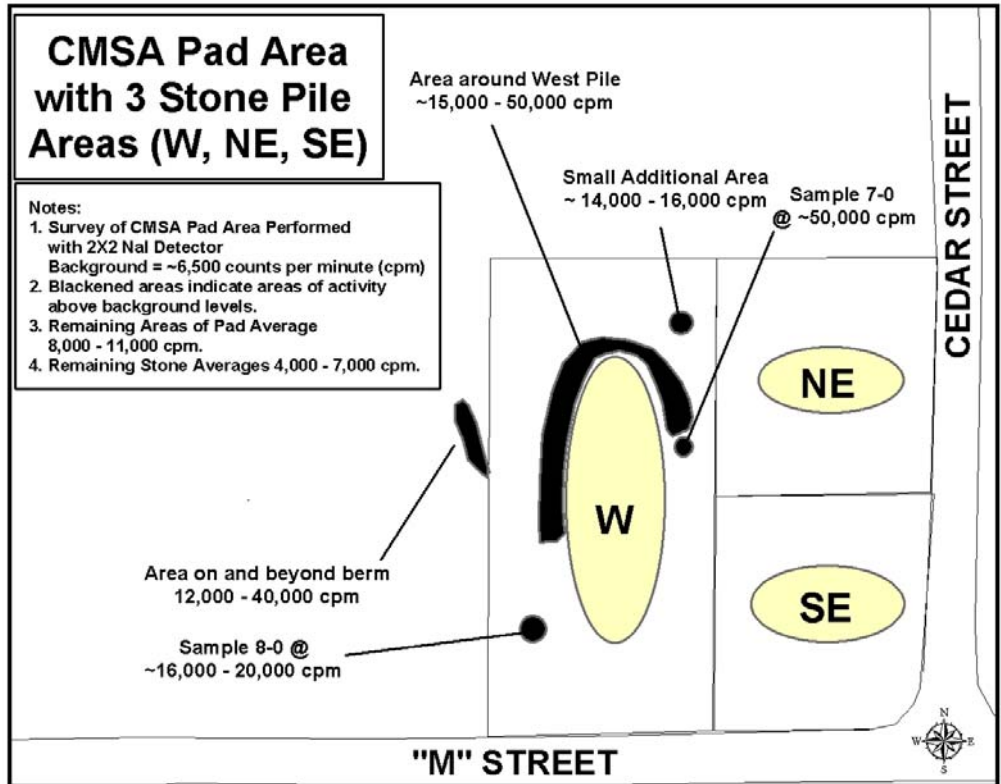
The CMSA is a storage pad, consisting of compacted stone, that the Corps constructed in 2000 as part of a removal action of TNT contaminated pipelines, once used in the TNT production process. The CMSA pad purpose was to securely hold TNT-contaminated material awaiting disposal but has since become outdated and is no longer needed. In turn, the Corps began its scheduled removal of the CMSA at the beginning of November 2004.

The CMSA pad is located on the portion of the LOOW site that is currently owned by Chemical Waste Management, Inc. (CWM). The Corps has been working only under the DERP-FUDS program on this parcel to address chemical contamination (such as TNT) from historical Department of Defense activities. This property is also a former vicinity property (VP-H') of the Niagara Falls Storage site, which was remediated for radiological contamination and certified closed by the Department of Energy in the early 1980s. Specifically, the site is located in the west - southwest portion of the CWM property, near the border with NFSS and property owned by the Town of Lewiston, also known as the former Wastewater Treatment Plant.

Due to its location within the CWM fence line and security, and lack of current CWM operations, the CMSA pad does not pose a current threat to human health or the environment, as access to the area is restricted to the public.

**CMSA Pad Radiological Findings**

Although the Corps, under the DERP-FUDS program, has no authority to characterize or remediate radiological material, monitoring is permitted for health, safety and disposal purposes<sup>1</sup>. As part of the health and safety monitoring during the CMSA pad excavation process, the



<sup>1</sup> Health and safety practices used on this program are the same stringent practices adhered to by the FUSRAP.

Corps identified a small area, of subsurface soil below the former pad, exhibiting radiological readings above background. The gamma walkover, conducted with a 2x2 NaI detector, did not identify the need to adjust health and safety procedures<sup>2</sup> but some limited soil sampling was conducted for confirmatory purposes. Gamma walkover results can be found in the above figure.

In turn, two biased soil samples, labeled 7-0 and 8-0, were collected and confirmed the results of the gamma walkovers; health and safety practices were adequate. A third sample, labeled 6-0, was collected and analyzed as representative of radiologically un-impacted soil. Sample 6-0 and 7-0 were analyzed via gamma and alpha spectroscopy. Sample 8-0 was analyzed by gamma spectroscopy only. Soil sample results are summarized in the below table.

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Sample	Th-230	Th-232	Ra-226	Total Uranium
	<i>Results in pCi/g</i>			
<b>CMSA Pad 7-0</b>	394	15	836	88.2
<b>CMSA Pad 8-0</b>	Not Reported	1.1	16	46
<b>CMSA Pad 6-0</b>	1.7	1	0.9	3.1

**Sample descriptions:**

CMSA Pad 7-0 - Sample located on the Northeast side of the West stone pile.

CMSA Pad 8-0 - Sample located on the Northwest side of the West stone pile

CMSA Pad 6-0 - Sample is representative of radiologically unimpacted soils.

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**CMSA Pad Path Forward**

The removal of the CMSA pad is complete and the stone, comprising the CMSA pad, has been disposed, as approved by the Corps' technical team and the New York State Department of Environmental Conservation (NYSDEC). The former CMSA Pad area was covered with geotextile and backfilled with approximately 6 inches of backfill material.

In addition, the Corps has communicated radiological findings to the Department of Energy (DOE), as the CMSA pad is on a vicinity property of the Niagara Falls Storage site that was investigated and closed by the DOE in the 1980s.

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<sup>2</sup> Based on the information collected to date and considering the low levels of radiological contamination, health and safety practices, administered under a Radiation Protection Plan, were adequate for this work. For example, the materials sampled at the CMSA pad were of a granular nature and integrated with the clay. Unless the pad was very dry when the initial development of the CMSA pad was performed, the potential for inhalation of these materials is minimal as they are not fine particulates.

### **Where can I get more information?**

The USACE Buffalo District has established an administrative record for this site. This record contains reports of past investigations and other pertinent site data. As new information becomes available, it will be added to the record. This record is available for viewing by the public at the following sites:

**Lewiston Public Library ● 305 South Eighth Street ● Lewiston, New York**  
**Youngstown Free Library ● 240 Lockport Street ● Youngstown, New York**  
**U.S. Army Corps of Engineers (USACE) ● 1776 Niagara Street ● Buffalo, New York**

To get more information about LOOW or other DERP-FUDS issues, or to be added to the program's mailing list, contact:

**U.S. Army Corps of Engineers, Buffalo District**  
**Public Affairs Office**  
**1776 Niagara Street**  
**Buffalo, NY 14207**  
**(716) 879-4410**

You may also call the district toll-free telephone number:

**1-800-833-6390**  
or e-mail at  
[derpfuds@usace.army.mil](mailto:derpfuds@usace.army.mil)

The USACE Buffalo District Web page is: <http://www.lrb.usace.army.mil/derpfuds/loow>.