



**Niagara
Frontier
Publications**

proud publishers of
Lewiston-Porter Sentinel
Grand Island PennySaver
Niagara-Wheatfield Tribune
Island Dispatch
www.wnypapers.com



Sentinel

LEWISTON-PORTER

Vol. 20 No. 42

December 22, 2007

24 Pages

773-7676

FREE



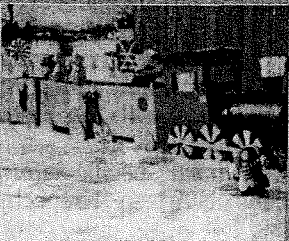
He's Almost Here ...

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Good Neighbor

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Displays

Army Corps releases detailed study of NFSS

by **Terry Duffy**

The U.S. Army Corps of Engineers this week released the findings of its long-awaited "Remedial Investigation Report for the Niagara Falls Storage Site," one which offers a comprehensive assessment – in the eyes of the U.S. government – of the potential human health risks and ecological risks to the community from the environmental contamination at the 191-acre site, which sits roughly 1-1/4 mile east of the Lewiston-Porter Creek Road campus.

It's "the first major technical product of an extensive, eight-year, \$24 million investigation of the site," reported the Corps Bill Kowaleski, project manager, who said the report details three phases of field testing and laboratory analysis done to determine both the nature and extent of radiological and chemical contamination.

Located on Pletcher Road, right in the middle of what was once the massive 7,500 acre Lake Ontario Ordnance Works site in north-

ern Lewiston and Porter that was operated by the Manhattan Engineer District, the off-limits and highly secretive NFSS stands today as the last remaining parcel still under government ownership, that was formerly controlled by the World War II-era Atomic Energy Commission.

The property consists of a 10-acre Interim Waste Containment Structure on its west end, a derelict-looking, four-story former steam energy plant fronted by cement silos in its center, various other small buildings still occupied by Corps technicians scattered about, and foundations of demolished buildings plus various tracts of overgrown wooded property to the north out to CWM Chemical Services, and east towards Modern Corporation property.

Off Limits

Best described as eerie-looking, NFSS today remains secretive, with varying amounts of above
SEE INVESTIGATIONS, on page 2

Greenway Commission reviewing projects



Niagara River Greenway Commissioner [Name] his hard work by New York State Parks W center, and Robert Kresse, commission ch Tonawanda supervisor, resigned his post

by **Joshua Maloni**

Eleven projects, valued cumulatively at more than \$13 million, have been submitted for Niagara River Greenway Commission approval in the first round of con

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Tops-NFP Coloring Contest

Investigation finds both radiological, chemical contamination

continued from cover

background radioactive contamination as well as chemical contamination found throughout the property. Off limits to the public, those who do get access to visit – this writer has been inside NFSS twice – generally are restricted to viewing the property from inside vehicles or standing on paved areas, due to the government concerns of radioactive and chemical contamination still found on the property.

Kowalski reported the Corps Remedial Investigation Report had its focus on the following: an analysis of the actual contamination; an evaluation on the scope of groundwater contamination and risk of migration to outside areas, and an overall risk assessment both to humans and the environment in northern Niagara County and neighboring waterways.

So what's the assessment thus far? In a nutshell, still a considerable amount of contamination both radioactive as well as chemical, but not one that's viewed as being a pressing danger to the general public, says Kowalewski, mainly due to the remoteness and inaccessibility of the site. "There are currently no imminent hazards to

safety or health from radiological or chemical contamination within the Niagara Falls Storage Site, or to a member of the public outside the site," he said.

But that's not to say NFSS still doesn't have its problems either.

The IWCS

One area of the Corps study – and still one of concern – focused on the Interim Waste Containment Structure. Constructed by the federal government in 1981 as part of a Department of Energy waste consolidation effort under its Formerly Utilized Defense Sites program, the IWCS was constructed in a basement of what was formerly Building 403, a massive building measuring 200 feet by 180 feet in size that was located on the southwest corner of NFSS. It contains more than 250,000 cubic yards of radioactive contaminants, including one of the highest concentrations of K-65 (Radium-226) found in the entire U.S.

Bill Boeck, a member of the LOOW Residents Advisory Board RAB Radiological Committee, in remarks this past fall at a LOOW informational session, said the IWCS today holds the radioactive equivalent of 2 billion smoke detectors, or half of all the known Radium-226 in this country.

In its report the Corps said the IWCS, when first built, was designed to retard radon emissions as well as infiltration from precipitation and migration of contaminants to groundwater. Kowalewski said recent studies determined the IWCS, a highly cordoned-off cell that sees routine maintenance performed on its clay cap by the Corps, could safely contain emissions, both through its cap as well as on its sides. Its shelf life was estimated by

a 1995 DOE study to be anywhere from 25 to 50 years from the time of construction, or from 2011 to 2035 with proper site maintenance.

Could Hold for 200 Years

And recent Army Corps findings, through simulated models of groundwater flow, indicate the cell could "adequately mitigate off-site containment migration for 200 years, provided it is maintained to prevent erosion of the clay cap and the IWCS cap retains its current levels of flow-inhibiting characteristics."

"Transport simulations indicate the Interim Waste Containment Structure will adequately mitigate containment migration for 200 years, as long as the site maintenance program is continued to prevent degradation of the clay cap," Kowalewski said.

Other contamination analyses found that radionuclides at NFSS were found to significantly exceed background, with the highest for surface soils being Radium-226, Thorium 230, Uranium-238, and Cesium-137 having the greatest frequency of detection as well as exceeding background upper tolerance limits.

And as far as radiological contamination of sediments and groundwater at NFSS, both exhibited upper tolerance limits exceeding background, primarily in ditches, the report said. However these were found to be limited to certain points of the year due to precipitation.

Other Findings

The Corps report found that chemical contamination was found on both surface and subsurface soils at NFSS, although in lesser quantities and magnitudes than the radionuclides. The volatile organic

compounds included chlorinated solvents, benzene, toluene, methylene chloride, carbon disulfide, and 2-butanone. Also found were PCBs, pesticides, polycyclic aromatic hydrocarbons and various metals found in localized areas of the site, particularly around both current and former, now-demolished LOOW buildings.

In addition contaminants were also found in the vast systems of pipes, floor drains and subsurface utilities that were constructed throughout the NFSS site in the 1940s by the U.S. War Department for a TNT manufacturing plant – one of the first activities at the LOOW site before Manhattan Project activities. Included were radionuclides, metals such as lead, boron, cadmium and mercury, organics, PAHs and PCBs.

And the Corps study found contamination on a National Grid right-of-way located just west of the NFSS site in wooded areas. Contaminants include above background radiation – Radium-226 and Thorium-230 – but very little chemical contamination.

Both the CWM and Modern properties were evaluated for groundwater contaminations, with elevated levels of uranium detected in groundwater at Modern near a railroad track formerly used in LOOW activities, but not exceeding contaminant levels. Radiological findings at CWM were not included, however the Corps report did find chemical contamination at CWM on lands straddling NFSS. Noting the CWM property's multiple uses with different operators over past decades, the Corps study stated, "The USACE will need to evaluate this situation and make a

decision on the appropriate agency response with regard to (a) potentially responsible party liability."

Health Risks

As far as health risks, be they radiological or chemical, to on-site workers, as well as trespassers to the NFSS or adjoining areas, the Corps said they vary, with the main consideration being the amount of time an individual is exposed. While it said, "There remains no imminent threat to the public from the radioactive residues and wastes stored at the site or from contaminated soils or groundwater on the site," the report continued, "... the baseline human health risk assessment model indicates there are potential long-term ... risks to persons who are on site and exposed to chemical and radiological contamination."

Studies of risk assessments to ecological areas on NFSS and nearby revealed that both the radiological as well as chemical contaminations, while present, are not sufficient enough to trigger a remediation response. "The outcome of this assessment is a recommendation of no further action for the relatively few habitats, vegetation and wildlife at NFSS," the report said.

The Corps said that copies of this detailed report are available at the Lewiston Public Library, 305 South Eight St., and the Youngstown Free Library, 240 Lockport St. The Corps intends to further explain its findings via a variety of community outreach projects and public information sessions, with the first expected in March 2008.

For additional specific information, contact Arleen Kreusch at 879-4438.