Presented @ June 04 Public Meeting

Vicinity Property G (VPG)
Presentation Overview and Location

- **Timeline**
- **USACE work accomplished**
- **Findings**
- **What's next?**

Legend:

Vicinity Properties previously certified as closed (i.e. investigated, remediated, verified to meet DOE standards) by DOE.

// Investigations at Vicinity Properties G, E, and E' were not certified as closed by DOE

Niagara Falls Storage Site (NFSS)

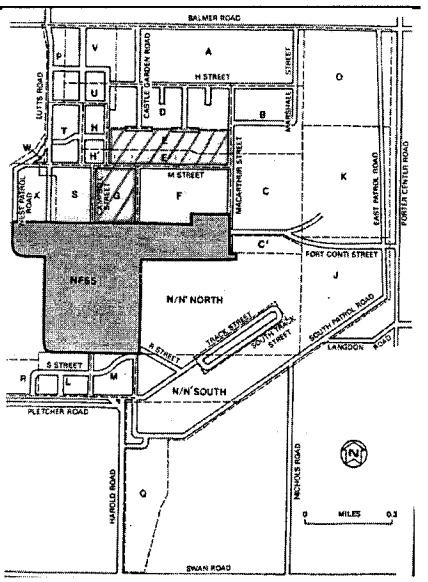

Figure Ref: (Bechtel National, 1989. *Post-Remedial Action Report for NFSS Vicinity Properties – 1985 and 1986)* June 8, 2004

Good Evening. My name is Michelle Rhodes and I'm the Project Engineer for the Niagara Falls Storage Site. I'll be briefly discussing the Corps work on Vicinity Property G. A detailed fact sheet is available for your information as well (location).

In a minute I'll discuss the VPG site history, Corps work, and findings.

First you may be asking, "What is a Vicinity Property"? A VP is a designated property that has been radiologically impacted by past government activities. I'll direct your attention toward the figure showing the NFSS vicinity properties, each with a letter designation. In the 1970-80s, the US DOE investigated, remediated, and certified clean (by an independent party) most NFSS VPs. Three VPs (VPG, VPE, and VPE') were not completely addressed by the DOE since small areas of interest on these properties were inaccessible for investigation. The Corps has been directed by Congress to address these open VPs on fully accessible for investigation and funding is available.

This presentation will focus on VPG, which is a 30-acre, directly north of the NFSS property, is currently owned by CWM Chemical Services. VPG was used as a burial area by the Atomic Energy Commission in the 1950s.

Vicinity Property G
University of Rochester
Burial Area Timeline

- **1940s –** University of Rochester was given the task of performing research in support of radiation safety by the Manhattan Engineer District
- **1951 –** Atomic Energy Commission burial of contaminated animal carcasses and waste from the University of Rochester Radiological Animal Testing on VPG
- **1972 –** 512 cubic yards of soil, drums, and debris, were removed from a 10-foot deep excavation
- **1983 -** U.S. Department of Energy (DOE) performed a radiological survey and soil sampling on VP-G
- **1986 –** DOE remediated accessible areas with contamination in excess of DOE guidelines

June 8, 2004

The focus of the Corps work on VPG was focused on the University of Rochester Burial Area.

1940s – Research was conducted at the University of Rochester to support the field of radiation safety. Radiological testing was conducted to determine…

1951 – A 21' x 21' burial of contaminated carcasses and waste from laboratory tests was buried in the south-central portion of VPG.

1972 – Documentation indicates that the U of R burial area was excavated and moved to a spoils pile on-site. No further information was provided about where "on-site" was.

1983 – U.S. Department of Energy (DOE) performed a radiological survey and soil sampling on VPG

1986 – DOE remediated accessible areas in excess of DOE guidelines

Vicinity Property G
USACE FUSRAP work accomplished

*** In response to Community/RAB concern ***

November 2001

- Geophysical Survey conducted over southern portion of VPG to focus trenching (soil excavation) activities

May 2002

- Investigated portion of VPG to verify removal of buried test animals
- Trenched to depth of 12 feet in area suspected of containing the animals

September 2002

- Four other trenches were dug to investigate additional suspect areas

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The Corps initiated work on VPG in response to community concern and Restoration Advisory Board (RAB) request regarding the presence of the University of Rochester Burial Area.

To confirm the 1972 excavation and collect data for future use, the Corps conducted a geophysical survey over the entire southern portion of VPG in November 2001. The objective of the geophysical survey was to identify changes in soil properties that may indicate burial or backfill material and identify any metallic objects (that may have been associated with this burial) that would help focus trenching activities.

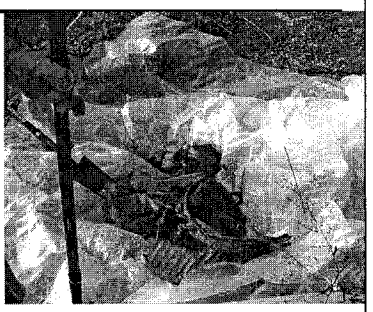
In May 2002, soil excavation (trenching) began to confirm the 1972 excavation. A deteriorated metallic trash can was unearthed demonstrating 20 times the level of gamma radiation as non-impacted areas. The contents of the trash can included standard laboratory debris, such as tubing, syringes, syringe needles, microscope slides, petri dishes, glass reagent bottles, pipettes, emesis basin, test tubes, and laboratory gloves.

The Corps suspended trenching activities in May 2002 due to the discovery of laboratory debris. A more thorough trenching investigation was scoped and the Corps' Contractor's Site Safety and Health Plan was revised.

In September 2002, four additional trenching locations were investigated.

Vicinity Property G
USACE Findings

- Animal bones/lab debris were not present in 99% of the approx. 300 foot excavated area
- Most soil (99%) had background levels of gamma radiation
- Unearthed one (1) remnant small mammal bone exhibiting elevated Strontium-90 radiation



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The objective of this investigation was to confirm the 1972 excavation of the U of R Burial Area.

No physical evidence of the burial area was found in 99% of the almost 300 feet of trenches and most soil exhibited background levels of radiation.

In September 2002, one pelvic bone from a small mammal was found (one foot below ground surface) exhibiting elevated Strontium-90. Also, a few additional items of laboratory debris were unearthed exhibiting elevated radiation levels.

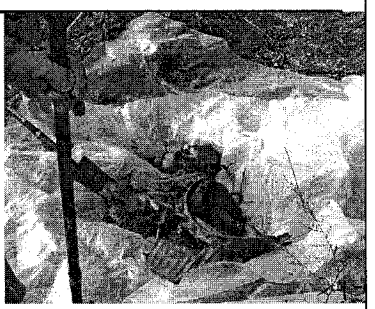
Also, a soil sample containing a dime-size portion exhibiting an elevated gamma radiation reading was collected within a foot of the surface exhibiting K-65-like Radium-226 concentrations, and detectable amounts of plutonium and strontium were found in x sample locations in soil, the animal bone, and lab debris.

Conclusions:

The The Corps confirmed the presence of a remnant animal bone and laboratory debris associated with the 1972 excavation of the U of R burial area. Therefore, the Corps concluded that VPG has isolated areas of buried radiologically contaminated materials through activities from two independent sources: Mallinckrodt K-65 (remnant from removal of drums previously containing K-65 residue) and U of R animal testing (which was sent to the site as part of the Atomic Energy Commission operations). The available data and the historical information associated with these potential sources support the conclusion that the U of R is likely the source of the plutonium-239/240 and strontium-90 contamination and NFSS is the likely source of the radium-226 contamination.

Vicinity Property G
USACE Findings, *continued*

- Unearthed small amount of laboratory debris demonstrating elevated activity.
- Unearthed dime-size soil sample exhibiting K-65-like Radium-226 concentrations
- Detectable amounts of Plutonium and Strontium were found in soil/bone/lab debris



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Vicinity Property G
What does this mean?

- Findings of this investigation do not present any exposure or risk to the general population
  - Surface soil investigated exhibited near background radiation levels
  - VPG is inaccessible to the general public
- The findings indicate the need for future Corps work on VPG

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Vicinity Property G
What's Next?

- VPG Report - available Fall 2004
- Funding
  - Corps will request funding from Congress to do complete investigation on VPG, VPE, and VPE'
- Investigation
  - VPG/E/E' will be thoroughly investigated after:
    - Funding is received
    - Inaccessible areas are available for investigation.

For more detailed information: See Fact Sheet

June 8, 2004