



Niagara Falls Storage Site Feasibility Study Technical Memorandum Development

**U.S. Army Corps of Engineers
Buffalo District**

Building Strong®

Formerly Utilized Sites Remedial Action Program (FUSRAP)

January 2011

Potential Health Effects of Contaminants at the Interim Waste Containment Structure Technical Memorandum

Purpose of this Fact Sheet

The U.S. Army Corps of Engineers will be developing a technical memorandum to evaluate health effects associated with potential exposure to chemicals and radionuclides contained in the residues and wastes stored in the Interim Waste Containment Structure (IWCS) at the Niagara Falls Storage Site (NFSS). Understanding the health effects caused by potential exposures will provide useful and important information needed to make and refine remedial decisions for the IWCS Operable Unit Feasibility Study (FS). By release of this fact sheet, the Corps is soliciting input from the public on the objectives of this technical memorandum so that the Corps can address public concerns during the initial stages of development of the technical memorandum. The Corps is currently scheduled to have the "Potential Health Effects of Contaminants at the Interim Waste Containment Structure" Technical Memorandum completed and available to the public during the summer of 2011.

Project Background

The NFSS is a 191-acre Federal property containing the 10-acre IWCS. Radioactive residues and wastes brought to the site by the Manhattan Engineer District and the Atomic Energy Commission during the 1940s and 1950s were consolidated into the IWCS by the U.S. Department of Energy in the 1980s. In 1997, the Corps became the Federal agency responsible for implementing the Formerly Utilized Sites Remedial Action Program (FUSRAP) subject to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). As previously announced, the Corps has transitioned into the FS phase. The Corps will prepare five technical memoranda that will be made available to the public prior to the development and release of the FS. In this manner, the public will be given the opportunity for review and comment as we progress through the development of the FS.

Purpose and Objectives of the Technical Memorandum

The purpose of this technical memorandum is to assess the potential health effects on remediation workers and members of the surrounding community from hypothetical exposures to select radioactive and chemical contaminants in the IWCS through airborne releases, gamma irradiation, and direct contact with the stored materials. Contaminant information used in this assessment will be largely based on historical information summarized in the Remedial Investigation Report and collected by U.S. Department of Energy during construction of the IWCS. The release mechanisms considered in the "Radon Assessment" Technical Memorandum will serve as a starting point for this technical memorandum, which will address additional receptors and exposure scenarios. Thus, this technical memorandum will provide an integrated assessment of potential health impacts associated with the IWCS contents, to help guide the evaluation of remedial action alternatives in the FS.

The objectives of this technical memorandum are to:

- Identify potential contaminant release mechanisms and exposure scenarios associated with various remedial alternatives;
- Follow the general format of a CERCLA risk assessment and provide estimates of potential radiation doses and cancer risks and non-cancer health effects due to hypothetical exposure of onsite and offsite receptors to IWCS-related contaminants resulting from the implementation of remedial alternatives;
- Assist in the development of remedial action technologies and alternatives for the FS, as well as guiding worker protection measures during implementation of remedial alternatives; and
- Provide information to allow for the evaluation of short-term and long-term effectiveness of remedial action alternatives in the FS (e.g., for those remedial action alternatives that involve onsite disposal of IWCS materials, either in-place or in a new onsite cell, the long-term effectiveness evaluation in the FS will include an assessment of the potential for contaminants to leach to groundwater).

This technical memorandum will not perform evaluations of hypothetical scenarios that extend into the long term and assume institutional controls have been lost because such evaluations have already been conducted for the IWCS. The National Research Council performed such a study and found that unacceptable risks would occur to a resident living in a house constructed in the IWCS residues; the results of this study, however, will be summarized in this technical memorandum.

Public Input Regarding the Technical Memorandum

The Corps encourages input from the public regarding the objectives of this specific technical memorandum including suggestions of remedial alternatives. Input should be provided to the Corps by February 18, 2011, to allow the Corps to consider the input while developing the technical memorandum. Responses to public comments will be made available on the project website. Input can be sent via e-mail to fusrap@usace.army.mil (please be sure to note "Potential Health Effects of Contaminants at the IWCS" in the subject of the e-mail) or mail your comments to the FUSRAP Team at the address noted below.

Administrative Record File

The Administrative Record File for the NFSS FUSRAP Site contains the Remedial Investigation Report, Baseline Risk Assessment, Groundwater Flow and Contaminant Transport Modeling and other CERCLA-related documentation for the NFSS. Reports and documents in the Administrative Record may be viewed at the following locations:

US Army Corps of Engineers
1776 Niagara Street
Buffalo, New York 14207 (by
appointment only)

Town of Lewiston Public Library
305 South 8th Street
Lewiston, NY 14092

Youngstown Free Library
240 Lockport Street
Youngstown, NY 14174

U.S. ARMY CORPS OF ENGINEERS – BUFFALO DISTRICT FUSRAP TEAM

1776 NIAGARA STREET, BUFFALO, N.Y. 14207

Phone: 800-833-6390 (Option 4)

Email: fusrap@usace.army.mil

Website: www.lrb.usace.army.mil/fusrap/nfss/index.htm