

[REDACTED]

**Subject:** [EXTERNAL] Revised Comments on NFSS IWCS FS  
**Date:** Saturday, February 06, 2016 6:13:08 PM  
**Attachments:** [NFSS-IWCS-FS-AWbComments.pdf](#)

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Please replace the comments sent earlier today (below) with the attached comments, instead, which correct my typo on the micrograms-per-liter abbreviation.

Thank you.

[REDACTED]

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[REDACTED]

**Sent:** Saturday, February 6, 2016 3:49 PM  
**To:** 'fusrap@usace.army.mil' <fusrap@usace.army.mil>  
[REDACTED]  
**Subject:** Comments on NFSS IWCS FS

Please accept the attached public comment addressed to the Corps regarding the IWCS FS.

Thank you.

[REDACTED]  
Lewiston, NY

[REDACTED]  
[REDACTED]  
Lewiston, NY 14092

February 6, 2016

U.S. Army Corps of Engineers Buffalo District  
Environmental Project Mngt. Team  
1776 Niagara St.  
Buffalo, NY 14207 via email: [fusrap@usace.army.mil](mailto:fusrap@usace.army.mil) and by U.S. Mail

**RE: Feasibility Study (FS) for the Interim Waste Containment Structure (IWCS) at the  
Niagara Falls Storage Site (NFSS,) and, the Proposed Plan for the IWCS**

Dear Environmental Project Management Team Members,

I write in support of proposed Alternative #4 to remove all of the contents of the IWCS, but note concerns about the delayed timetable, and, the stability of the IWCS prior to removal of its contents.

1. **Cost:** The Corps' public representation of its discounted cash flow analysis did not represent the true cost of the four action Alternatives.<sup>1</sup> In actual 2012 dollars, the Corps' Preferred Alternative #4 is by far the least expensive per FS Appendix J, Table J-2 figures in the chart, below.

Moreover, the discounted cash flow for Alternatives 2, 3A and 3B assume the IWCS Cap would be reconstructed only once in 1,000 years. Notwithstanding the fact that the half-life of K-65, et al is greater than 1,000 years, the "Re-Cap\*" line I added to the Corps' discount, below, assumes the Cap must be reconstructed once every 100 years, which seems quite conservative:

*in \$ millions*

<b><u>Alternative #2</u></b> re-cap units A, B, C	<b><u>Alternative #3a</u></b> remove A, re-cap B/C	<b><u>Alternative #3b</u></b> remove A/B re-cap C	<b>PREFERRED</b> <b><u>Alternative #4</u></b> remove ALL: A/B/C
Corps: Non-Discount <b>\$1.473 billion</b>	<b>\$1.71 billion</b>	<b>\$1.77 billion</b>	<b>\$490.6 million</b>
Corps: Discount 3.5% \$ 67.4 million	\$303.6 million	\$362.4 million	\$490.6 million
<b>Re-Cap*+discount 3.5%</b> <b>\$301.4 million</b>	<b>\$537.6 million</b>	<b>\$596.4 million</b>	<b>\$490.6 million</b>

\* =10x the \$23.4 million the Corps projected Capital cost of Alt. 2 (Att.J-1-5 of FS Appendix J)+ Corps Discounted figures

As noted in the FS, Alternative #2 to leave the high activity residues in place would violate regulation.

<sup>1</sup> The following Appendices could not be downloaded from the FS Report on the USACE website; they were available only in hard copy at the Lewiston Library, which precluded a complete public review of all 20,000 pages in the 60-day comment period timeframe over Christmas and New Years' holidays: Appendices D, E, H, I, J, K.

2. Location: The Proposed Plan makes no mention of the close proximity of *all Lewiston-Porter Central School District schools* to the IWCS, other than their location on a map in the back of the document. The Proposed Plan also does not include a map of all residences within 10 miles of the IWCS.
3. Leakage: The Corps has provided no soil or sediment data to support its vague claim that the dramatic increase of Uranium detections in certain groundwater wells, from 60 ug/L to over 4,000 ug/L during the past several years around the IWCS is due to legacy contamination. The only scientifically rational explanation provided, to date, is that the IWCS is already leaking.
  - The failure of the Corps to publish its 2014 Environmental Surveillance Report as of this date, along with data from its missing Appendix K in its otherwise published *Feb. 2015 Balance of [NFSS] Plant Extent* investigation report suggest the Corps knows the IWCS is already leaking.
  - Given the complexity of vertical and horizontal groundwater flow around the NFSS, the Corps should increase the locations and frequency of surface water sampling, particularly in the Southwest Drainage Ditch near the NFSS which turns west and then north through Lew-Port Central School District property. The Corps would not need to admit the IWCS is already leaking in order to address public concerns about the adequacy of monitoring around the NFSS.
  - Equally important, the failure of Corps contractors to identify the source of the increasing Uranium in groundwater in any of the investigations published, to date, render **FS Alternatives 2, 3A and 3B as too dangerous in the short, or long, or intermediate term to be considered.**
4. Failure Analysis: The FS places undue reliance on a 1994 Dept. of Energy Failure Analysis to justify the proposed delay in removing IWCS contents. **THE IWCS HAS NO ENGINEERED, DESIGNED STRUCTURE FOR RADIOACTIVE MATERIAL IN THE BOTTOM OR BENEATH IT.**

The high water table and complex geology at and around the IWCS and NFSS present severe regulatory obstacles to Alternatives 2, 3A and 3B as noted in the FS, and for good reason.

- a) The Corps has not indicated that it has a plan to address an emergency involving a major failure of the cap; for example, the collapse of the south wall of the cell leaving a gaping opening in the IWCS cap. Only relatively smaller breaches seem to have been contemplated in Corps analyses, to date. It is recommended the Corps accelerate its timetable for IWCS removal for this reason.

- b) In addition to shortcomings in the Failure analysis for the IWCS cap, no reasonable analysis of the integrity of the bottom of the IWCS has been conducted. Floor drains and wall breaches in the bottom of the containment structure, a WWII-era basement, were patched up in the early 1980's prior to placement of the high activity residues and radioactively contaminated soils and debris in the IWCS. Patches in cement tend to breakdown over time, and more so for patches installed over 30 years ago.

The following statement in the Proposed Plan, p.17, is wholly unsubstantiated: *"Despite the fact that more IWCS material is removed under Alternative 4, the long-term effectiveness and permanence of Alternatives 3A, 3B, and 4 are the same, with only cost increasing as additional material is removed. No improvement in the long-term effectiveness and permanence is realized because the IWCS materials that remain in-place under Alternatives 3A and 3B would be contained in an enhanced IWCS, which would offer the same level of protection as a permitted off-site disposal facility provided by Alternative 4."*

This statement is false because the off-site facility deemed likely to receive material has engineered containment beneath the waste. **THE IWCS HAS NO ENGINEERED CONTAINMENT DESIGNED FOR RADIOACTIVE RESIDUES IN THE BOTTOM OF ITS STRUCTURE OR BENEATH IT.** This another reason why **FS Alternatives 2, 3A and 3B are too dangerous in the short, or long, or intermediate term to be considered.**

- c) The Corps' failure analysis for an airplane accident did not seem to consider frequent flyovers from the Niagara Falls Air Base. This Base has one of the longest airstrips in the U.S. and hosts some of the largest aircraft in the world. In addition, these aircraft are often loaded with fuel and ammunition – from C-130s to, now, KC-135<sup>2</sup> refueling tankers and drones. International military aircraft (from other countries) also use the Base for maintenance of large planes from time to time according to the Base website, presumably due to the unusually long landing strip.

The fact that military aircraft have crashed in our area is another reason why **FS Alternatives 2, 3A and 3B are too dangerous in the short, or long, or intermediate term to be considered.**

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<sup>2</sup> "Schumer: KC-135 refueling planes headed to Falls air base" [http://www.niagara-gazette.com/news/local\\_news/schumer-kc--refueling-planes-headed-to-falls-air-base/article\\_d693d714-cb56-11e5-aec8-8f134fc9b788.html](http://www.niagara-gazette.com/news/local_news/schumer-kc--refueling-planes-headed-to-falls-air-base/article_d693d714-cb56-11e5-aec8-8f134fc9b788.html)



"A C-130 from the Niagara Falls Air Reserve Station launches flares over Lake Ontario during a training exercise August 10, 2011, Niagara Falls, NY. Flares can be launched from an aircraft as a defensive measure against hostile forces. (U.S. Air Force photo by Staff Sgt. Joseph McKee)"

<http://www.niagara.afrc.af.mil/photos/mediagallery.asp?galleryID=948&page=2>

5. Future Meetings: As an aside, the Corps did not seem to effectively communicate or highlight for the public the relative volume of high activity residues to be transported. For example, the 28,000 cu. yd. estimate of residues in IWCS Unit A is the equivalent of about one week's worth of waste hauled in to Lewiston and Porter during most of the year.

(Total wastes shipped to Modern and CWM were roughly 1.25 million tons in a given year, with seasonally low volumes in Jan. and Feb. Our Villages, the Town and the County are working to permanently reduce this volume with the closure of CWM, however, this figure puts the IWCS volume into some context residents have experienced and therefore may better understand.)

It is also recommended the Corps hold future public meetings at the Lew-Port High School Auditorium to accommodate a larger audience likely to be interested in the project plan details for transportation and environmental monitoring.

Sincerely,

