## More involved discussions on LOOW site

by Terry Duffy

Two separate meetings – both featuring more involved discussion on the Interim Waste Containment Structure at the Lake Ontario Ordnance Works site – took place last week by local citizens groups focused on LOOW and its future.

On May 7, the LOOW Community Action Council met on the Lewiston-Porter campus to review details on the in-progress "Applicable or Relevant and Appropriate Requirements" – technical documents being prepared by the U.S. Army Corps of Engineers, Buffalo District. The ARARs are the latest in a series of memoranda being prepared by the Corps as part of its months-long feasibility study on the IWCS at LOOW and its future. And they're among the most complex thus far.

Corps reps John Busse, LOOW site project manager, and Jane Staten, project engineer for the Niagara Falls Storage Site, explained the ARARs, described as "evaluations," deal with threshold requirements, namely legal definitions of federal regulations that would trigger a remedial action at the site. Corps "lawyers weigh in heavily on the process," said Busse.

"It's a complex stew of regulations, absolute, legal interpretations," added Corps-retained facilitator Doug Sarno, who is working with CAC in steering Corps information on the IWCS study to the community.

Sarno said with ARARs a number of interests have roles, but when it's all said and done, Corps lawyers have the final say-so on any future actions triggering a government cleanup of a site. "Public input is important; the EPA had a role, the state DEC has a role, but only as advisory roles as does the community," said Sarno.

He said the Corps in its determinations takes comments from all interests into consideration. "But the Corps has the final say on IWCS, as does its lawyers," unlike the government cleanup on Fernald, Ohio, which saw the involvement of the EPA.

Staten provided what she called a simple example of an ARAR contained in federal regulations under Title 40: Protection of Environment (under §61.190 Designation of Facilities). She noted the inclusion of the Niagara Falls Storage Site in a grouping of five facilities nationwide designated as "storage and disposal facilities for radium containing material ... owed and operated by the Department of Energy that emit radon-222 into the air."

Then she provided a more complex one under the §61.190 standard, which places limits on radon releases at a site and triggers mandated government response. She noted the standard contains criteria stating, "No source at a Department of Energy facility

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Lewiston-Horter Sentinel 19 MAY 2012 (conit)

shall emit more than 20 picocuries per square meter per second of radon-222 as an average for the entire source into the air."

"This defines what cannot be exceeded; it's a current standard applied to all NFSS testing," said Staten, adding its "a requirement to demonstrate the regulation standard." She added that gray areas arise when the ARAR "involves the applying of standards that get to be proven."

"Options would need to be considered, standards need to be applied, the ARARs need to be evaluated, applied," said Staten. "In all, the Corps has to prove it can meet the ARAR standards" to trigger response.

Busse said the Corps in its IWCS review would be considering the possible evaluation of up to eight ARARs as part of its study on the IWCS that could trigger a government response. "Four are complex," he added.

Both Busse and Staten closed by saying they were uncertain at this point as to when the Corps ARAR evaluations for the IWCS feasibility study would be completed and ready for release to the community as technical documents in preparation for a planned Corps workshop this summer.

On May 8, the second group, the LOOW Restoration Advisory Board, held a low-key session at Lew-Port that featured an informative presentation on the science of radiation by Dr. Mark Gallo, associate professor of biology at Niagara University. Gallo explained the differences and impacts of alpha, beta and gamma rays emissions - their breakdowns, longevity and ultimate impacts on the human body. He told the handful of visitors that gamma emissions, described as "high energy" release, are considered by far the most dangerous and most prevalent in the IWCS cell.

"These are the most wide-ranging at LOOW," said Gallo.

He added that soil consistencies also need to be considered at LOOW when determining the solubility of the radioactive agents. Among the issues of concern he said would be pumping operations at site that could impact the area's hydrology.

Chemist Ann Roberts, formerly of Youngstown, participated in the session via conference call from Wisconsin. She told RAB attendees she had done additional reviews of IWCS leakages and determined that nearby activity, namely pumping operations at Modern, could be influencing the flow of contaminants at the IWCS. "There are increases in radium in well OW 11B" found on the eastern side of the IWCS that "suggest that Modern pumping operations prompted changes in groundwater in an easterly direction," said Roberts.

She said the Corps in its responses thus far does "suggest acknowledgement" that a sanitary sewer was damaged from past construction at IWCS in the 1980s, but "pumping activities have yet to be factored in."

Roberts also chided the Corps for its delays in sharing information regarding future cleanup work at the Lewiston wastewater treatment plant on the northwest side of the IWCS cell. The Corps "has not shared remedial investigation material ... they have kept the sampling secret, they have not shared it with the community," said Roberts.

The Corps following that session did release a rather detailed 277-page PDF titled "Completion Report for Mitigation of Safety Hazards" at the WWTP. It can accessed for review at http://www.lrb.usace.army.mil/derpfuds/loow/index.htm#Documents.