

## INTERIM DREDGE DISPOSAL WORKING GROUP

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+ Not present

\*\* Attended by Phone

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ACTION BY	ITEM	DESCRIPTION
INFO	1.	George Skerritt of Frelø Technologies gave a presentation on their Frelø Hydrocarbon Converter (FHC) and Frelø Catalyst. The FHC is a blended silicate-based liquid that will convert hydrocarbons on contact when applied to impacted soils, surfaces and groundwater. When applied to impacted soil, a minimal reaction time renders the contaminant irreversibly altered and the contaminant, if hazardous, no longer possesses its chemical fingerprint. The compound that forms is an organic-silicate residue with the consistency and make-up of sand.
INFO		Frelø Catalyst is a heavy metal converter that uses sodium silicate to encapsulate the types of heavy metals found at the dredging site, which leaves them inert, insoluble in water, and non-hazardous. Soluble silica reacts with all multivalent cationic metal ions to form the corresponding insoluble metal silicate. The characteristics of mercury don't work well with the catalyst, but Frelø is exploring other alternatives to address this.
INFO		Mr. Skerritt briefly mentioned a large project in Gabon, West Africa. There was a large spill at several drilling sites owned by Shell Oil Company. He said Daystar Environmental was invited to the Texas/Louisiana area to use the organic compounds. He said they found a covered sludge pit with a very high TPH level. Frelø was requested to do three treatments of liquid, sludge, and sludge/sand. He described how with the treatments the color changed from black to light brown to almost white. He said after several days it looks like dirt, which is basically what silicates are. He explained that there was 90% less oil contamination and Shell Oil asked how to get more. Ultimately, Frelø set up a mixing site to help with that project.
INFO		Another case: 5,600 gallons of contaminated water, that came from a electricity operation, were put in a steel holding tank and combined with a 55 gallon container of Frelø. Testing was preformed by SOS Environmental from Austin and after 15 minutes, the total petroleum hydrocarbons were dramatically reduced.
INFO		Mr. Skerritt explained that Frelø catalyst encapsulates heavy metals and it works with many dioxins. The silicates precipitate the metals out of the solution to form metal silicates that are non-soluble and non-reactive. It has a very long term stability lasting several hundred years and the bond can only be broken by extreme (heat) action. Frelø costs between \$20-25/gallon. Testing is usually necessary to find out what concentraton is needed. In our case, ideally the application of a Frelø product would be applied before the contaminants get into the river. But as an

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<p>JW</p>		<p>alternative, the Frelø could be added and mixed in the (barge) hold and when the dredging is discharged to wherever the destination site is. When the dredged material is pumped out, the mixing action would render it environmentally safe.</p> <p>Jim White will send George information on what we know about sediments in the river to help determine whether we have an application for Frelø products.</p>
<p>INFO</p> <p>INFO</p> <p>NOTE</p>	<p>2.</p>	<p>The USACE's contractor still isn't moving material from dike 10B to the Pershing Road site due to delays in property acquisition, however, both the City and ArcelorMittal said the closing is extremely close.</p> <p>The USACE has mobilized the contractor by releasing 25,000 yd<sup>3</sup> of material to build up the berms of dike 9. Ultimately, 325,000 yd<sup>3</sup> of material will be removed from dike 10B.</p> <p><b>Subsequent to this meeting, the City and ArcelorMittal completed the property transaction which paves the way to begin moving 10B material to the Pershing site.</b></p>
<p>INFO</p> <p>ERDC/ WORKING GROUP</p> <p>INFO</p>	<p>3.</p>	<p>Joe Kreitinger handed out a list of questions (dated July 7, 2010) to be answered for each of the five or six alternate sites (Pershing Road, La Farage at Kelly's Island, Zaclon property, ArcelorMittal properties along the river, and Catholic Cemeteries). The Port may include a lakefront property for a sixth alternative. Comments should be sent to Joe by next week. A suggestion was made to begin with a Phase 1 for each of the sites.</p> <p>Joe explained that ERDC put together an outline for reporting on beneficial alternatives. The outline is an overview of the regulatory framework the USACE is working under, the process, a review of the technical aspects of the project's vision, and a review of the technical feasibility of the environmental issues that may occur. He explained that there would be an economical and costs analysis to determine the lowest cost option that is both technically feasible and environmentally acceptable. And finally, a review of the shorter term beneficial use alternatives within the context of long term sustainable dredge management.</p> <p>Last week the USACE put together the project team consisting of engineers and scientists out of the Engineer R&amp;D Center. The first thing they'll do is visit some of the sites and find opportunities to be identified and start asking some questions and collecting data.</p>



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INFO		<p>There is interest in providing information to the communities throughout the Great Lakes. This idea should be put on the next agenda – how do we get the information out to the communities so this is better understood?</p> <p>Summarizing John Watkins along these lines, we understand that dredged material has limited uses and we're going to solve the dredging crisis in a way that's beneficial to communities and we're not going to put anyone at risk.</p>
<p>INFO</p> <p>INFO</p> <p>ODOD</p> <p>INFO</p>	8.	<p>Amy Alduino talked about the brownfield program she administers for ODOD. This is the best funded brownfield clean-up program in the country. In the next four years the program will be giving away \$50 million worth of grants per year to clean up brownfields. Amy said the Clean Up Ohio Fund was set up to do clean up for economic purposes. The ODOD is working with the OEPA on public/private partnerships.</p> <p>Ms. Alduino said the problem with the USACE is extreme time insensitivity with the time line being dozens of years where ODOD's time line is one year. She said an idea would be to develop a land bank for some of the communities.</p> <p>Ms. Alduino talked to USEPA and they may be agreeable to a pilot project. She said a brownfield site has to be former commercial or industrial property which has contamination above an actionable level.</p> <p>Amy is working with the Cincinnati Metropolitan Sewer District to address green alternatives to extreme wet weather events. They've developed a model that after it succeeds could be replicated around the country. And likewise, a solution to the dredge issue could also be used countrywide.</p>
<p>INFO</p> <p>INFO</p> <p>INFO</p>	9.	<p>Valarie McCall explained that from the City's prospective there are a lot of CDC's and people working together to maximize the opportunity to spend ODOD funds.</p> <p>There are opportunities with the Cleveland-Cuyahoga Land Bank and other sites where these funds are not being utilized and moved towards turnkey situation where they are available for development.</p> <p>There are also missed opportunities like the airport and the Jeep plant in Toledo, where if communities had had the foresight to realize there was going to be a disposal capacity problem, dredge material could have been given serious consideration for backfill.</p>
COC	10.	<p>The City of Cleveland issues permits for grading and dredged sediment should be brought into the discussion anytime there is a</p>

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		request to authorize filling or grading. To be effective, the engineering properties of the soil would have to be consistent and available. And if suitable, the material could lower construction costs for unbalanced sites.
TASK FORCE	11.	Jim White said there is a need to reach out to other communities, not just Cleveland. Through groups like the Ohio Contractors Association and ODOT, the Task Force could reach out to the rest of Cuyahoga County and beyond to determine whether dredged material has an application in construction. Before reaching out, it will be imperative to develop specifications for the dredged sediment.
OEPA	12.	The USACE asked the OEPA if they would consider a special classification for dredge material that might exempt it from more onerous characterization and reuse requirements.
INFO	13.	Chris Korleski, OEPA Director, said there has been a lot of interest and confusion on the concept of using the quarry on Kelleys Island for the disposal of dredged material. He said we don't want to trade one environmental issue for another and understands that Kelleys Island is still on the list as an alternative. The OEPA does not think Kelleys Island is an alternative. He gives LaFarge a lot of credit for an opportunity to use their facilities and to do something productive. The OEPA would agree to look at LaFarge's alterations to their original plan that they think would address the OEPA's concerns. Mr. Korleski said there are insurmountable hurdles to get through by using the quarry and does not recommend pursuing this option.
WORKING GROUP	14.	Mr. Korleski said seeing Dike 14 and 10B was very helpful. He said the dredged material, whether it's clean or to what degree it's contaminated, must start to be used in upland sites for fill, soil amendments, soil substitutes, and construction projects. This includes focusing on sorting the material that is going into the CDF.
INFO	15.	Due to duplicative nature of the representation to the Working Group and Task Force meetings, beginning next month the meeting will be combined until further notice.  <b>The next meeting for the Working Group/Task Force will 1:30PM on August 4, 2010.</b>

Distribution: Working Group  
Task Force  
Attendees

The above covers items discussed in the last Working Group meeting. Please forward your additions or corrections to Skip Jacobsen ([skip.jacobsen@portofcleveland.com](mailto:skip.jacobsen@portofcleveland.com)) within three working days from the issue date.

