

Conference Call Meeting Minutes – August 30, 2001
Groundwater Remedial Investigation and Red Water Ponds Feasibility Study
Plum Brook Ordnance Works
Sandusky, Ohio

<u>Participants:</u> Linda Ingram	USACE Nashville District
Jim Beaujon	USACE Nashville District
Lannae Long	USACE Nashville District
Doug Mullendore	USACE Nashville District
Richard Meadows	USACE Huntington District
Ron Nabors	Ohio EPA
John Weaver	Ohio EPA
Laurie Eggert	Ohio EPA
Bonnie Buthker	Ohio EPA
Mikael Spangberg	IT Corporation, Windsor, CT
Michael Gunderson	IT Corporation, Knoxville, TN

Introduction. Mikael Spangberg opened the conference call by reviewing the issues to be addressed in the conference call. Specifically, (1) how will overburden groundwater be addressed given that 26 of 32 piezometers installed in the TNT Manufacturing Areas in July 2001 did not produce water and (2) what is the path forward on the Redwater Ponds feasibility study (FS).

Groundwater Remedial Investigation. With regard to the overburden groundwater, Lannae Long had raised questions that were emailed to the participants in preparation for the discussion. These questions were as follows:

- With little success in the overburden, what options do we have to perform a risk assessment on the overburden?
- Do we put wells in, or can we do hydropunch at a later (wet season) time?
- We do not have local background locations either. How can we assess site relatedness without background?

Lannae stated she was asking for direction so the USACE could write the scope of work for overburden groundwater risk assessments. As previously stated, most of the piezometers installed this year at TNT Areas A, B and C were dry. Lannae stated that she does not think the limited precipitation received at Plum Brook would affect the bedrock evaluation. Ron Nabors asked if Bonnie or Laurie had encountered anything similar at other sites. Bonnie replied that probably the closest site was Marion, but this site had results for groundwater.

John Weaver stated that there was an adequate understanding of the hydrogeologic characteristics of the site. John posed the question of whether the maximum groundwater concentrations could be used, regardless of when they were collected. Laurie responded that as the data was collected by hydropunch sampling there is too much uncertainty in the data.

Bonnie asked Laurie if residuum groundwater was really that significant of an exposure pathway to go through the effort needed for a risk evaluation. Laurie asked if the old data was collected during wet years. John replied residuum water was discontinuous and seasonal.

Ron asked if the contact scenario could be modified to reflect only exposure from digging through the soil and an appropriate reduction in days of contact. Lannae Long responded that we can assume 50% is dry season, which is winter.

Laurie suggested that instead of a quantitative evaluation of groundwater in the perched zone, why not consider doing a qualitative evaluation of the perched zone. The qualitative evaluation would present groundwater data from 2000 and 2001 and discuss that exposure to groundwater is not a significant exposure pathway. Residential receptors would still be evaluated for bedrock groundwater, which would be a conservative approach. Attempting to install residuum wells is not required since there is the potential they may always be dry.

Lannae agreed with this approach but stated that it may be questioned later which may be the only problem. Laurie also stated that the planned removal actions of impacted site soils would aid in the evaluation.

John stated that the odds of a resident installing a residuum well is small given the proximity to Sandusky and city water supplies which would support a qualitative evaluation. John inquired that for consistency, if we can sample other areas with residuum water, do we apply this qualitative approach if residuum water is found at other PBOW locations. Lannae responded that a quantitative evaluation will be needed if data are available. This concluded the discussion on groundwater.

Red Water Ponds Feasibility Study. Mikael Spangberg opened the discussion for the Redwater Ponds Feasibility Study by reiterating the conclusions of the baseline ecological risk assessment (BERA) indicating that there was no unacceptable risk and that the sites appeared to be candidates for no further action. The issue for the group to decide was whether the two sites would proceed to a No Further Action Decision Document in lieu of the FS or can a management decision be made to address residual soil contamination.

Bonnie stated that the risk assessment conclusions are inconsistent with those presented in the human health risk assessment. She stated that on page 5-60, soils at the Pentolite Road Red Water Ponds are clearly contaminated and exceed acceptable risk for residential receptors for some samples. If we do a management decision the sites will need deed restrictions and, if not, then there is a need to do active remediation. The FS is needed to evaluate costs of deed restriction versus active remediation.

Lannae asked if the site will be released as unrestricted residential property. Ron stated that NASA wants to release the area unrestricted but it is presently zoned as industrial.

Bonnie stated there is a need to evaluate costs of both active remediation and deed restriction but stated that a management decision can be made on the WARWP. Ron asked if the two sites could be separated and Lannae stated that they could.

Lannae stated there should be no problem with two separate paths for the site.

Bonnie asked if NASA would agree to a Land User Control Plan to institute restriction to commercial or industrial use due to the contamination present. Ron stated that NASA probably would not have a problem but this would need to be presented to NASA. Ron also stated that NASA is going to the most conservative levels on the reactor so they can walk away from it and they will want consistent mentality on WARWP.

Mike stated that the onsite residential cancer risk was $1.5E-05$ and the Hazard Index was 0.665. Lannae stated that a central tendency exposure will result in risks being less than these. Bonnie stated that the EPA is not concerned with WARWP but there is a need to bring this central tendency issue out in management decision to justify not using the E-5 OEPA cutoff for WARWP. Ron stated that the question of active remediation versus land use controls needs to be posed to NASA.

Laurie stated she was concerned with PAHs at the WARWP based on toxicity to the earthworm. Lannae stated the PAH detection was in an area used for parking area at the WARWP.

Mike Spangberg asked if we should approach NASA now to preclude need to go through FS. Rick stated it should be done. Jim Beaujon stated that it would be beneficial to see the remediation costs because land use controls go on for an unknown period. Bonnie stated that if remediation costs were prohibitive, this information could be presented so there's more convincing argument not to use the residential scenario. The consensus was that an FS be completed for both ponds.

Consensus Agreements. Bonnie noted that there was discussion at the July 31, 2001 meeting concerning consensus agreements with representatives from NASA, USACE, OEPA and the RAB, but she had concerns regarding the possible RAB consensus member. Rick stated this approach would document for example the risk management decision proposed for the WARWP and went on to say it's not a legally binding but is used to document the logic behind decisions. This way, if team players change, there will be documentation of why the decision was made and new members could stand behind it. Gives team more structure. Bonnie stated that the approach seems to be good but there is the issue that NASA may want to clean up to residential standards even though it is cost prohibitive. You wouldn't be able to reach consensus and there would be the potential to stop work.

The discussion on the consensus agreements continued. The team agreed that meeting minutes adequately capture any agreements that are made but the consensus team concept has merit and will be considered if dictated by future events and decision making.

TNT Area B Decision Document. Linda opened the discussion by asking if we can do a DD on the TNTB soils since the USACE can get funding for remedial action. Rick stated he thought we had agreed to complete the soils DD. Doug stated that a removal action based on the current FS could be completed, but this would not address leaching to groundwater. This could result in additional soil excavation based on more conservative soil to groundwater pathways at a later date. Rick stated that a removal action shows progress on the site. Bonnie stated that once a removal action has been instituted, it can be used to get additional funding. Mike Spangberg stated that if soil and groundwater are combined, the result is that there would be no action for 2-

3 years pending completion of the groundwater investigation. Based on the fact the FS is complete, the group agreed that an Action Memorandum and removal action would be completed for the site, followed by completion of the groundwater investigation.