

**NTC GREAT LAKES MEETING MINUTES**  
**March 28, 2002**  
**GREAT LAKES, IL**

Attendees:	<u>TtNUS</u> Robert Davis Aaron Bernhardt	<u>Navy SouthDiv</u> Anthony Robinson	<u>NTC Great Lakes</u> Mark Schultz Dan Fleming Georgia Vlahos	<u>IEPA</u> Brian Conrath Les Morrow (by conference call)
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**1.0 Meeting and Introduction**

- 1.1 Greeting and check in
- 1.2 Agenda is attached – the agenda was revised to discuss Site 17 ecological risk assessment before the human health risk assessment.
- 1.3 Presentation materials (slides, tables, figures) were provided in hard copy form. Extra copies will be send to Navy SouthDiv by Federal Express when TtNUS gets back into the office. Brian took an extra copy back for Les.

**2.0 Site 17 Site Overview and History**

- 2.1 **Overview/Site Characteristics** were discussed to provide an overview of the project. Based on the results, Pettibone Creek was divided into the North Branch (from the culvert to the Boat Basin) and the South Branch (from the golf course to the confluence with the North Branch).
- 2.2 **Site History** was discussed to provide the reasons for the analysis conducted based on the QAPP. The historical sampling events have been conducted since the 1970s; since that time 12 sampling events have been completed, some by the EPA Region 5, IEPA, and the Navy.

**ACTION ITEM – TtNUS to identify last time the Boat Basin was dredged and a map of the storm sewer outfalls into Pettibone Creek** (According to the historical information, the last time the Boat Basin was dredged was in the early 1970's and a figure will be put in the RI report showing the storm water outfalls on the NTC Great Lakes property – this figure shows 30 outfalls into Pettibone Creek).

**3.0 Site 17 Field Work and Lab Analysis**

- 3.1 **Field Work** – Reviewed the number of sediment and surface water samples collected in Pettibone Creek and the Boat Basin and where they were collected. Also reviewed what the samples were analyzed for. A geologic cross section of the sediments in the Boat Basin was provided – the bottom of the Boat Basin was identified by native/natural soil – no concrete bottom was found.
- 3.2 **Sieve Analysis** – The Pettibone Creek surface and depth sediments were classified silty sands or sands with less than 15% passing the #200 sieve. The Boat Basin sediments at depth were classified as a clayey sand with approximately 50% passing the #200 sieve. The #200 sieve is slightly larger than the #230 sieve mentioned in the IEPA sediment sampling procedure.
- 3.3 **Inorganic Criteria** – For the nature and extent of contamination, there are several criteria to use. The TACO Soil Residential Ingestion Criteria will be used for the inorganics except for Arsenic which will use the TACO Background Soil with Metropolitan Areas. The TACO Soil Residential Ingestion Criteria for Beryllium is 160, not 0.1.
- 3.4 **Laboratory Results** – The tables provided at this time have been revised up and are being prepared for the RI report, compared to the tables provided back in December 2001 when this was discussed earlier. The December 2001 meeting minutes provide a summary of the results – several PAHs and metals exceed the criteria, metals exceedances are higher at depth, PAH exceedances are higher in the surface sediment. This may be related to the decline of the industry operation upstream (metals) as well as the increase in use of cars, construction of roads, and runoff from roadways (PAHs).

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**ACTION ITEMS – TtNUS will provide a list of the samples where full analysis was conducted** (samples NTC17BBSD47 surficial, NTC17BBSD5303 [3 to 6 feet], NTC17PCSD04, NTC17PCSD14, NTC17PCSD16, NTC17PCSD18, NTC17PCSD21, NTC17PCSD23, NTC17PCSD29, NTC17PCSD36). **TtNUS will determine if the laboratory submittals include chromatographs for possible fingerprinting or to identify the source/timing of the contamination** (Note: the laboratory submittals consist of CDs that have the chromatographs).

**4.0 Navy Sediment Policy**

NTC Great Lakes and SouthDiv attorneys will work this new policy in parallel as it related to the work at Site 17. The IEPA attorney is also aware of the policy and the work at Site 17. SouthDiv plans on providing a copy of the RI/RA to the attorneys at the end of the project. The Watershed Document described in the policy will be a summary of the results of the RI/RA (executive summary, conclusions with figures and tables).

Funding for the FS has been put on hold. The policy states that IR/ERN and BRAC funds will not be spent on sites where the primary sources of contamination are off site. The attorneys may need to identify other sources of funds for work on sites with offsite sources of contamination.

**ACTION ITEM – IEPA to check on the status of the Fansteel Site**

**5.0 Site 17 Ecological Risk Assessment**

**5.1** Risk assessment decision to split into the South Branch, North Branch, and Boat Basin. Discussed the Piscivorous Mammal Endpoint - raccoon vs. mink.

**5.2 Surface Water** – Several COPCs identified based on comparison to water quality standards. IEPA performs Triennial Water Quality Surveys – TtNUS will get latest survey. NTC Great Lakes attorney has toxicity tests results from an outfall upstream – this will not be of help this test was for the surface water and the contamination is in the sediment. In the spring fish do migrate upstream in Pettibone Creek. This has been observed annually. The reevaluation of the surface water indicates the low concentrations of pesticides and metals do not warrant further analysis.

**5.3 Sediment** – IEPA indicated that two sources of sediment screening values (USEPA Ecotox and Long et. al.) should not be used as part of the ERA. VOCs and SVOCs (other than PAHs) do not warrant further evaluation. PAHs and metals are primary risk drivers to benthic invertebrates. Pesticides and PCBs are a bioaccumulative concern, not a direct toxic concern. Sediments that are of concern are located in the upstream area of the North Branch and in the deeper sediments in the Boat Basin. Further evaluation of the sediment to determine a potential impact to the benthic community is necessary but will not be done at this time because of the Navy policy. The South Branch may be a suitable reference stream for comparison.

**ACTION ITEMS - TtNUS will get latest Triennial Water Quality Survey. NTC Great Lakes (Dan) to obtain information on benthics in the sediments from Bob VanBendegan.** (The latest Water Quality Survey was conducted by the state of Illinois in 1990 according to IEPA – TtNUS has a copy of this report already. Dan obtained information from Bob VanBendegan, it was the same reports that TtNUS had received earlier in the project. There was not information about benthics in the sediments in the reports.).

**6.0 Site 17 Human Health Risk Assessment**

**6.1** Risk assessment analyzed recreational use of Pettibone Creek and the Boat Basin for adolescents and adults for exposure to surface water, sediment, and fish ingestion.

**6.2 Surface Water** – Several COPCs identified based on comparison to surface water criteria. The HI was less than 1 and the ILCR was less than 1E-6 for the adolescent. The ILCR for the adult was 1.8E-6, within the USEPA risk management decision range.

**6.3 Sediment** – COPCs in South Branch were PAHs. Risks associated with the South Branch slightly exceeded 10E-6 and were a result of exposure to BaP. COPCs in the North Branch are PAHs, DDT, PCBs, and metals. Risks associated with the North

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Branch slightly exceeded  $10E-6$  and were a result of exposure to BaP. COPCs in Boat Basin were PAHs, PCBs, and metals. Risks associated with the Boat Basin slightly exceeded  $10E-6$  and were a result of exposure to BaP and PCBs. IEPA asked if the risks were calculated based on the surficial sediment only.

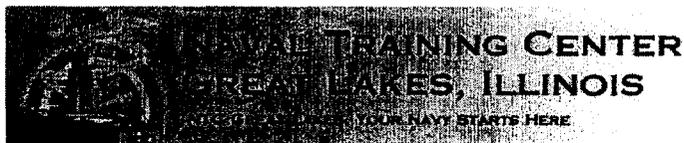
- 6.4 Fish Ingestion** – These calculations were done based on modeled fish tissue concentrations, not on real measured concentrations. IEPA suggested using a fish ingestion rate of 8 instead of 25 grams per day that is similar to the USEPA assumption. Sediment to fish bioaccumulation factors of 1 were used for several chemicals since no factors were available. TtNUS asked IEPA if factors for sediment to benthic invertebrates would be more appropriate in the absence of sediment to fish bioaccumulation factors. IEPA agreed that sediment to invertebrate factors could be used. USEPA Region 6 also has a document that should be reviewed related to these calculations. Initial calculations were  $HI=24$  and  $ILCR=2.2E-3$ . Recalculated the risks based on discussed assumptions.

**ACTION ITEM – TtNUS will check the risk calculations for sediment to see if they were done using surficial sediments only (this was checked and only the surficial sediment results were used). TtNUS to recalculate the risks associated with fish ingestion based on changes to assumptions as discussed (fish ingestion rate, bioaccumulation factors for sediment to invertebrates, USEPA Region 6 document).** (The risk calculations were conducted using the surficial sediments only. The recalculation of the risks for fish ingestion are provided in the attached Response to IEPA Comments).

- 7.0 Next Meeting** – Plan on the next meeting at Navy SouthDiv in late May to discuss the comments on the RI/RA reports for both Sites 7 and 17. Information will be provided to IEPA now so that travel orders can be obtained.



# GREAT LAKES NTC MEETING AGENDA



Attendees: Bob Davis – TtNUS  
Anthony Robinson, Dave Criswell – Navy, SouthDiv Charleston  
Dan Fleming, Mark Schultz – Navy, EFA West NTC Great Lakes  
Brian Conrath, Les Morrow - IEPA

Dress: Casual

Location: Great Lakes NTC, First Floor Conference Room in Building 1 (tentative)

## Thursday, March 28, 2002

TIME	TOPIC	OBJECTIVE
0800-0830	Check-in	Check-in
0830-0900	Project Overview and Field Activities – Site 17	Bring everyone up to speed on status/objectives, Navy Policy on Sediment Site Investigation, and field activities conducted
0900-1000	Analytical Results and Human Health Risk Assessment	Present the analytical results and human health risk assessment results
1000-1015	Break	
1015-1130	Ecological Risk Assessment	Present the ecological risk assessment results
1130-1200	Wrap Up	Questions
1200-1330	Lunch	