



DEPARTMENT OF THE NAVY  
SOUTHERN DIVISION  
NAVAL FACILITIES ENGINEERING COMMAND  
2155 EAGLE DR., P. O. BOX 10068  
CHARLESTON, S. C. 29411-0068

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NSWC CRANE  
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PLEASE ADDRESS REPLY TO THE  
COMMANDING OFFICER, NOT TO  
THE SIGNER OF THIS LETTER.  
REFER TO:

Nov 5, 1992

December 4, 1992

FOR THE MEMBERS OF THE TECHNICAL REVIEW COMMITTEE (TRC) FOR THE  
INSTALLATION RESTORATION PROGRAM CORRECTIVE ACTIONS AT NAVAL  
SURFACE WARFARE CENTER CRANE, IN

Enclosed please find a copy of the minutes from the seventh TRC  
meeting held 5 November 1992.

The next TRC meeting is tentatively scheduled for 18 February 1992.  
You will be informed of any changes or a confirmation a few weeks  
prior to this meeting date.

Please contact me at 803-743-0582 with any inquiries.

Sincerely,

A handwritten signature in cursive script, appearing to read "A. P. T. Wilson", is written over the typed name.

Adrienne P. T. Wilson  
Restoration Project Manager  
By direction of the Commanding Officer

MEETING MINUTES FOR  
NAVAL SURFACE WARFARE CENTER, CRANE DIVISION  
TECHNICAL REVIEW COMMITTEE MEETING NO. 7  
NOVEMBER 5, 1992

The meeting was called to order by Jim Hunsicker, NAVSURFWARCENDIV, Environmental Division Manager, at 0910. Jim remarked that several people could not attend today's meeting including Carol Witt Smith (USEPA), Tim Crouch (Monroe County Health Department), and the representative from Bloomfield. Jim also added that personnel changes at the State level have affected meeting attendance. Meeting attendees were subsequently introduced (see attached attendance list).

Jim reiterated that the purpose of the TRC meeting is to educate the public and community about the Installation Restoration Program (IRP) at Crane. Jim also introduced Adrienne Wilson (Navy RPM) and noted the transition of the Navy project management from NORTHDIV to SOUTHDIV. He further elaborated briefly on the history of IRP involvement of the Army Corps of Engineers at Crane. He noted the Wilmington District's involvement originating about 1-1/2 years ago, the Vicksburg District's involvement since 1981, and the Louisville District's involvement since approximately 1 year ago. Jim also introduced SEC Donohue as one of the players in the IRP at Crane.

Captain Howard asked if there was any follow-up with communities when they do not attend the TRC meetings. Jim replied that copies of the reports, meeting minutes, and other correspondence are mailed out on a regular basis to the TRC members. Captain Howard also asked whether or not the Louisville base has a TRC program. Adrienne Wilson informed the meeting attendees that Louisville does not have a TRC. Further discussion and questioning established that a TRC will ultimately be set up for the Louisville base. This was recorded as an action item for Jim Hunsicker and Commander Hayes.

**0925:** Following the opening introductions and discussion, Adrienne Wilson introduced the meeting agenda. The agenda included presentations by Bill Murphy of the Army Corps of Engineers Vicksburg District and Jeff Maletzke of SEC Donohue. Bill's presentation focused on the Phase III Groundwater Investigation at the Ammunition Burning Grounds (ABG), and Jeff Maletzke's presentation focused on the Phase II Release Assessment Work Plan for Solid Waste Management Units (SWMUs) #19/00, #08/17, #12/14, and #13/14. Adrienne encouraged meeting attendees to ask questions and welcome comments.

**09:28-11:15:** Bill Murphy presented the results of the RFI Phase III Groundwater Report for SWMU #03/10, Ammunition Burning Ground. The presentation summarized the site description history, investigation objectives, and findings and conclusions. The purpose of the Phase III Groundwater Investigation was to evaluate geology, groundwater flow, degree of contamination, identify potential receptors, and evaluate the long-term disposition of the contaminants.

Bill summarized a regulatory history at the ABG spanning from May 1980, at which time EPA finalized the RCRA Regulatory Program at Crane, to the present, where NAVSURFWARCENDIV is currently pursuing a Subpart X permit (OB/OD) for the ABG, demolition area, and old rifle range. He summarized an operational history which focused on the burning of smokeless powder in burn pads or flash pits at the ABG. Bill also walked meeting attendees through the different operational aspects of the various site components as shown on Plate 1 of the Phase III Groundwater Report. Jim Hunsicker interjected where appropriate in order to add pertinent information to the operational aspects of the ABG. Jim noted that a 40-year history of ash collection at the ABG resulted in the accumulation of 13,500 tons of ash. In 1986, the ash was screened and removed for disposal under agreement with the State of Indiana.

Bill Murphy described the groundwater monitoring program on-site including the installation of 98 monitoring wells, including well clusters. The first 39 monitoring wells were installed between 1981 and 1986. Fifty-four additional wells were installed between 1986 and 1987 in conjunction with a study by Hunt (1988). In the summer of 1989, 5 additional wells were installed within the Beech Creek Aquifer to satisfy USEPA requirements. Nine more monitoring wells were installed within alluvium (stream deposited soils) in the valley of Little Sulphur Creek near the NAVSURFWARCENDIV boundary. Bill noted that 72 of the original 98 wells have been sampled for groundwater quality since September, 1987. Appendix F within the Phase III Groundwater Report documents the sampling history of each well during the period between September 1987 and January 1992. Seven springs were also sampled. Captain Howard asked why a private well south of the ABG had not been sampled in conjunction with the previous investigations. No reason was given, however, this was noted as an action item to be addressed by Jim Hunsicker. It was also noted that receptors such as this private well will be looked at in conjunction with the forthcoming risk assessment.

Bill Murphy also presented the topography, drainage, geology, and hydrogeology of the ABG. As summarized in the Phase III Groundwater Report, the geology and drainage characteristics of the ABG are quite complicated, reflecting Karst conditions. Bill concluded his presentation with a summary of the groundwater analytical results. Bill noted detections of metals, pesticides, organics, and indicator parameters. Most prevalent throughout the sampling history were barium, cadmium, mercury, selenium, lead, and manganese. Bill added, however, that many of the analytes were detected sporadically throughout the sampling history with some analytes detected during only one sampling event. Explosives detected at the ABG included TNT, HMX, and RDX. Of these, RDX is the most prevalent. Organic parameters most often detected include TCE, di-n-butylphthalate, and bis(2-ethylhexyl)phthalate. TCE was noted as being consistently high and the most prevalent of the organic parameter detected. In summary, barium, RDX, and TCE displayed the most widespread distribution and most common occurrence across the ABG. Bill presented a number of distribution maps reflecting parameter detection in wells and springs at the ABG.

**11:15-11:30:** Jeff Maletzke presented the components of the RFI Phase II Work Plan for the Building 106 Pond, Mine Fills A and B, and Pyrotechnic Test Areas (Rocket Range, Ordnance Test Area, and Annex). Jeff walked meeting attendees through the scoping process leading to the development of a sampling plan appropriate to the release assessment (verification) phase of the field investigation for the respective SWMUs. This included development of a sampling approach and rationale, site conceptual model, and ultimately maps showing sampling locations. The ordnance test area was used as an example in presenting the respective components of the scoping process. The sampling approach was also tied to Crane's RCRA permit which is structured to perform assessment and characterization in separate phases. Composite and discrete sampling was proposed for all media (soil, surface water, groundwater, sediment). Pending verification of contaminant release, contaminant migration would be tracked in the subsequent phase. Jeff noted that the Work Plan was in the Rough Draft stage at this time. The Draft Work Plan is scheduled for distribution to the TRC in December.

**11:30-11:35:** Adrienne Wilson announced that NASA was to be in attendance at the meeting to discuss the base flyover to provide aerial coverage of the base for incorporation with sampling data to link to Geophysical Information Systems (GIS). This would allow for efficient preparation of site base maps and manipulation of sample location and analytical data. Adrienne noted that this flyover will occur sometime in the future and that discussions with NASA were pending.

**11:35:** Adrienne initiated discussion regarding scheduling of the next TRC meeting. The next TRC meeting was set for February 18, 1993. No objections were raised regarding this date. Advance notice containing details of the next meeting will be mailed to TRC members as this date approaches. Adrienne then opened the meeting up to general comments and questions. The Mayor from Loogootee commented that he was comforted by the knowledge disseminated during the meeting regarding the amount and type of work being done at the base to address environmental issues. He also noted that he was interested in obtaining a public relations announcement for inclusion into the community newspaper regarding the discussion and results of the TRC meeting. Further discussion ensued noting schedule impacts to respective document submittals and other aspects of the IRP at Crane due to EPA review or lack thereof. It was noted that steps were being taken to resolve this issue.

**11:40:** Meeting adjourned.

TR/MISC/CX9