

MINUTES OF 16 MAY 1991 TRC MEETING
NAS WILLOW GROVE, IRP STUDIES

Convened: 10:00 hrs., Building 78, NAS Willow Grove

LCDR Zook opened the meeting with introductions and noted that no representatives of EPA, PaDER, or Horsham Township were present. A list of those in attendance is attached.

Frank Klanchar noted that PaDER and EPA had called to extend their apologies.

LCDR Zook distributed an information package which summarizes the PA and SI information and the current status of each IR Program site at NAS Willow Grove. He then introduced Frank Klanchar, Northern Division's project manager for the IR Program at NAS Willow Grove.

Frank Klanchar requested comments or questions on the minutes of the last TRC meeting (none were offered) and introduced Gregg Campbell, EA's project geologist.

Gregg Campbell displayed facility maps, noted the locations of each IRP site, and summarized the Plan of Action (POA) for the first phase of the RIs and ESIs.

NAS Site 1 -- Private Road Compound

Samples of ground water obtained at the Privet Road Compound were found to contain trichloroethene (TCE) and tetrachloroethene (PCE) at levels above MCLs during one or more rounds of sampling. The VOC detected in

the upgradient well sample were found at significantly lower levels than the levels in the downgradient samples. PCB, dieldrin, 1,1,1-trichloroethene (TCA), 1,1-dichloroethene, 1,2-dichloroethene, and lead are also of potential concern with regard to ground-water quality.

Soil samples from test borings at the Privet Road Compound contained the PCB Aroclor 1260 (2.7-7.5 mg/kg), dieldrin, and DDT which supports the interpretation that the site is a source for these components in ground water. Sediment samples taken from ditches bordering the site contain PCB and dieldrin, which is consistent with ground water and subsurface soil data for the site. These sediment concentrations indicate the potential for migration of these hazardous constituents offsite. The PCB level in the upstream sample also suggests the possibility of an offsite source of this contaminant.

The NAS water supply wells are located upgradient (with respect to shallow ground-water flow) but close to the Privet Road Compound. The ARF water supply well and ARF Site 4 (Washrack Area) are located a short distance downgradient of the Privet Road Compound.

The first phase of the RI at the Privet Road Compound will consist of:

- . Sixteen test borings on a grid pattern to evaluate the nature and extent of waste materials in the subsurface at the site.
- . Surface water and sediment sampling to assess the extent of migration via the drainage ditches.
- . Installation and sampling of additional monitor wells to further assess ground-water-flow paths and the extent of contaminant migration in ground water.
- . Pump testing to evaluate natural and induced (production wells) ground-water gradients.

The existing monitor wells at the site screen the shallow water table. Deeper (80-100 ft) wells will be installed next to the existing upgradient well and one existing downgradient well at the site boundary.

Two 2-well clusters will be installed further downgradient in the direction of the ARF supply well and the Washrack Area. Two 2-well clusters will also be installed between the site and the two NAS supply wells.

The pump test program will consist of a period of monitoring water levels in all the monitoring wells during normal pumping of the supply wells followed by three pump tests where each of the supply wells is pumped individually.

LCDR Zook noted that the supply wells are on the order of 300 ft deep. It is known that regionally there is a problem with TCE at that depth.

Gregg Campbell indicated that the purpose of the intermediate depth monitor wells is two fold. One, to see whether there has been vertical migration from the shallow water table. Secondly, to monitor gradients to assess the potential for induced migration from pumping the supply wells.

Frank Klanchar noted that the debris pile would have to be cleared from the Privet Road Compound in order to proceed with the test borings.

LCDR Zook indicated that NAS will soon be building a new solid waste management facility including transfer station, etc., and asked what the schedule for the test borings is.

Frank Klanchar responded that Northern Division anticipates a contract award for the RI/ESI field work in September. Field work could start in October.

Gregg Campbell continued summarizing the POA:

ARF Site 4 Washrack Area

TCE has been detected at levels above potential ARARs in wells WRW-1 and WRW-2. Ground-water flow directions have been found to fluctuate at this site. It is not known whether this is seasonal and/or related to pumping of the ARF well. Well WR-1 (the well with the highest concentrations) is at times upgradient and at other times downgradient of the site. Traces of TCE and TCA have also been detected in the upgradient well WRW-3. Further evaluation to confirm the Washrack Area as a source of ground-water contamination appears warranted.

This evaluation is considered an Extended Site Inspection. Additional soil sampling will be performed in areas where solvents were handled to assess the potential for an onsite source of VOC. Surface water and sediment sampling in the drainage ditch will be performed and, also, soil samples beneath the ditch will be taken to assess the potential for contaminants resulting from infiltration from the ditches. One deeper (80-100 ft) monitor well will be installed next to WRW-1 to assess the potential for vertical migration. All ARF Site 4 wells will be monitored during the Privet Road Compound pump testing.

NAS Site 2 -- Antenna Field Landfill

Dieldrin was detected in the stream adjacent to the site at levels several orders of magnitude above the chronic toxicity level for fresh water aquatic organisms and the suggested carcinogenicity protection level in ambient water.

Dieldrin was detected at levels ranging from 7.8 to 510 µg/kg in sediment samples from all sampling locations at the site. The highest surface water and sediment levels of dieldrin were consistently detected at station AL/SWS/3. This station was located along a ditch which bisects the landfill and discharges to the unnamed stream bordering the landfill.

DDT and its breakdown products were also detected in sediment at two stations.

The first phase of the RI at the Antenna Field Landfill will consist of surface water, sediment, and seep sampling. Samples will be taken upstream, at and downstream of the site to try to further pinpoint the source area. Samples will also be taken further downstream to assess the potential for migration off Navy property.

The existing wells will be sampled to confirm the SI results. Note that at each site all the existing and new wells will be sampled once during this phase of the study.

NAS Site 3 -- 9th Street Landfill

Ground water in the water-table and semi-confined aquifers upgradient of the 9th Street Landfill was found to contain chlorinated hydrocarbons. It was concluded that the 9th Street Landfill is also a source of chlorinated hydrocarbons in ground water. Additional concerns at this site include pesticides in surface water and sediment, and pesticides and cyanide in surficial soil.

During a recent site visit EA and Navy personnel observed activities at the Army helicopter facility (upgradient of the 9th Street Landfill) which suggest the possibility that VOC may have left that site via a drainage pipe which discharges up the hill from the Site 3's upgradient well cluster. A shallow monitoring well will be installed in the vicinity of the end of the pipe.

Deeper wells (150-175 ft) will be installed at the existing 2-well cluster locations to assess the extent of vertical migration. An effort will be made to identify existing wells (off the NAS) further downgradient which may be available for sampling.

The SI test borings did not encounter anything to be considered a source of VOC contamination. Four test pits/trenches will be excavated to better evaluate subsurface conditions and potential sources. These have been located on the basis of the SI terrain conductivity and soil vapor surveys.

Additional surface water and sediment samples will be obtained upstream, at, and downstream of the site. Soil sampling will be performed at the ball field on a grid pattern. The ball field samples will be analyzed for free cyanide (bioavailable) as well as total cyanide and the other parameters.

LCDR Zook noted that he was told some time ago that the ball field was safe for use. Is that no longer the case?

Gregg Campbell indicated that the free cyanide test is recommended to be sure. Typically, cyanide in soil samples is not bioavailable.

Chuck Houlik indicated that, during the SI planning stage, Northern Division did not think it necessary to preclude use of the ball field. This was based on the results of samples taken prior to the SI. He didn't recall whether the samples were taken by NAS Willow Grove or by Northern Division. Ken Petrone (Northern Division's project manager at the time) had told him the samples were clean.

With regard to the constituents other than total cyanide found, pesticides and PCB, the levels were very low; but, one could not say for sure without completing a risk assessment. The results of a risk assessment would be dependent on the exposure scenario. A pica (children ingesting dirt) scenario assuming a high frequency of occurrence would pose a relatively high risk compared to a scenario for an adult playing ball once or twice a week with some dermal and inhalation contact.

Capt. Keith indicated that any particular individual would not be likely to play ball there more than a few times a year. He also noted the ball field surface had recently been regraded to fill holes and level high spots for safety reasons.

Greg Campbell noted that removing vegetation enhances the exposure potential.

Paul Greco suggested that the field could be hydroseeded and access restricted until the grass is established.

Gregg Campbell continued summarizing the POA:

NAS Site 5 -- Fire Training Area

Successive sampling events were consistent in showing the presence of several chlorinated and non-chlorinated hydrocarbons in samples of ground water from well FTAW-1. Trace levels of chlorinated hydrocarbons were detected in the other well samples.

Soil sample results agreed closely with ground-water data with the exception that no traces of TCE were found in the soil. From these data it can be concluded that significant residue from fire training activities exists in and around FTAW-1 and to a lesser extent FTAW-2.

The first phase of the RI at the Fire Training area will consist of a series of test borings and installation and sampling of additional monitor wells. Twelve test borings will be sampled for laboratory analysis in the drum storage and burn areas to evaluate the nature and extent of soil contamination. A deeper well (80-100 ft) will be installed next to FTAW-1, which screens the shallow water table. Two 2-well clusters will be installed further downgradient. One shallow well will be installed south of the drum storage area for additional gradient control.

LCDR Zook indicated the fire department wants to reactivate the Fire Training Area; the fires would be propane fueled. He asked whether that would pose a problem for the investigation.

Gregg Campbell indicated it would be preferable to complete the test borings prior to construction of any permanent facilities.

LCDR Zook asked about the schedule for the borings.

Frank Klanchar indicated contract award in the next quarter with field work commencing in the fall.

LCDR Zook asked why it takes so long to do these things.

Frank Klanchar indicated that one important factor is regulatory agency review and comment on the POA. He noted the schedule attached to the meeting agenda.

LCDR Zook suggested that he and Frank Klanchar get together after the TRC meeting to discuss ways to accelerate the schedule.

Gregg Campbell continued summarizing the POA:

NAS Site 7 -- Abandoned Rifle Range No. 2

With the exception of methylene chloride -- a common laboratory contaminant-- no TCL organic compounds were detected in samples of ground water. Dissolved metals concentrations were below MCLs. There was no pattern to upgradient-downgradient comparisons. However, methylene chloride was detected during the SVCA at the site. An ESI will be conducted to resolve whether the site is a source. Four test borings will be sampled for analysis at the locations of the SVCA anomalies. A shallow monitor well will be installed near the center of the site to

assess whether mounding within the fill is influencing local ground-water-flow paths. Additionally, a reconnaissance will be performed in the wooded area southeast of the site where trash and debris have been observed. Soil samples will be taken if appropriate.

Field work has resumed at the Navy Fuel Farm. The six monitor wells have been installed and are being sampled today. Well NFFW-2 has been replaced with a deeper, larger diameter (6 in.) well and two additional potential recovery wells have been installed immediately downgradient of the site. Pump testing will be performed during June and early July.

Frank Klanchar indicated that the decision documents for NAS sites 4, 8, and 9 are in internal review at Northern Division. These will go to public notice.

LCDR Zook asked about Site 6.

Frank Klanchar responded that he would add Site 6 to the document.

Capt. Keith indicated he would like to see public notice no later than early July.

The next TRC meeting was scheduled for 25 July.

ATTACHMENT A

LIST OF ATTENDEES - TRC MEETING HELD ON MAY 16, 1991

<u>Name</u>	<u>Organization</u>	<u>Phone #</u>
CDR Mark Brazell	XO NAS Willow Grove	(215) 443-6051
Gregg Campbell	EA Engineering	(301) 771-4950
John Dibuno	NAS Willow Grove, PWD	(215) 443-6235
Hal Dusen	913 TAG/DEEV	(215) 443-1107
Paul A. Greco	NAS Willow Grove, PWD	(215) 443-6255
Chuck Houlik	EA Engineering	(301) 771-4950
CAPT Steve Keith	CO NAS Willow Grove	(215) 443-6051
Frank Klanchar	NORTHNAVFACENGCOM	(215) 897-6280
ENS Margaret Leary	PAO NAS Willow Grove	(215) 443-1779
Mark Leipert	NORTHNAVFACENGCOM	(215) 897-6280
William F. Rothert	111 TASG/DE PaANG	(215) 443-1348
Kristen Wall	NORTHNAVFACENGCOM	(215) 897-6280
LCDR M. J. Zook	PWO, NAS Willow Grove	(215) 443-6221

10:00 AM

TRE Meeting - 16 May 91

LIST OF ATTENDEES =

<u>NAME</u>	<u>ORGANIZATION</u>	<u>PHONE #</u>
Mark Leipert	NORTH DIV	(215) 897-6280
Chuck Houlik	EA	301/771-4950
Paul A. Green	NASWG	(215) 443-6255
John DiBuono	NAS WILLOW GROVE	215 443-6235
Gregg Campbell	EA	301/771-4950
William Fr. Rathert	INTASG/OE Pa ANG	(215) 443-1348
LCDR M.J. ZOOK	PWO NAS WG	(215) 443-6221
HAL DUSEN	913 TAG/DEEV	(215) 443-1107
CDR MARK BRUELL	XO NAS WG	215-443-6051
CAPT Steve KETH	CO NAS WG	215 443-6051
ENS Margaret Levey	PAO NASWG	215 443-1779
KRISTEN WALL	NORTH DIV	(215) 897-6280

AGENDA
Technical Review Committee
NAS Willow Grove, PA
May 16, 1991

1. Questions on TRC Minutes of January 8, 1991
2. Distribution and Discussion of Draft RI and ESI POA
 - /* Site 1 - Privet Road Compound (RI)
 - /* Site 2 - Antenna Field Landfill (RI)
 - /* Site 3 - 9th Street Landfill (RI)
 - /* Site 5 - Fire Training Area (RI)
 - /* Site 7 - Abandoned Rifle Range #2 (ESI)
 - /* ARF Site 4 - Washrack Area (ESI)
3. Navy Fuel Farm - Site 10
 - * Aquifer Pump Testing
 - * Removal of Underground Storage Tank(s)
 - * Abandonment of old well
4. Decision Document for Sites 4, 8, and 9
5. IR Program Schedule
 - * Remedial Investigations/Extended Site Inspection
 - * Fuel Farm Pump Test
6. Closing Comments

IR PROGRAM SCHEDULE
FOR
NAS WILLOW GROVE, PA

Updated: 10 May 91

Action:

Planned Date:

Draft Report RI/FS and ESI POA	16 May 91
Regulatory Agency Review (30 days)	1 Jul 91
Final RI/FS and ESI POA	26 Jul 91
RFP EA Engineering for RI/FS and ESI Fieldwork	Jul 91
Award Fieldwork	Sep 91

- Fuel Farm -

Install Fuel Farm Wells	22-30 Apr 91
Sample Fuel Farm Wells	16-17 May 91
Pump Testing	Jun 91
Pump Testing Report	<i>Aug</i> Jul 91
RFP CTO for Remedial Design	Jul 91
Award Remedial Design	Sep 91