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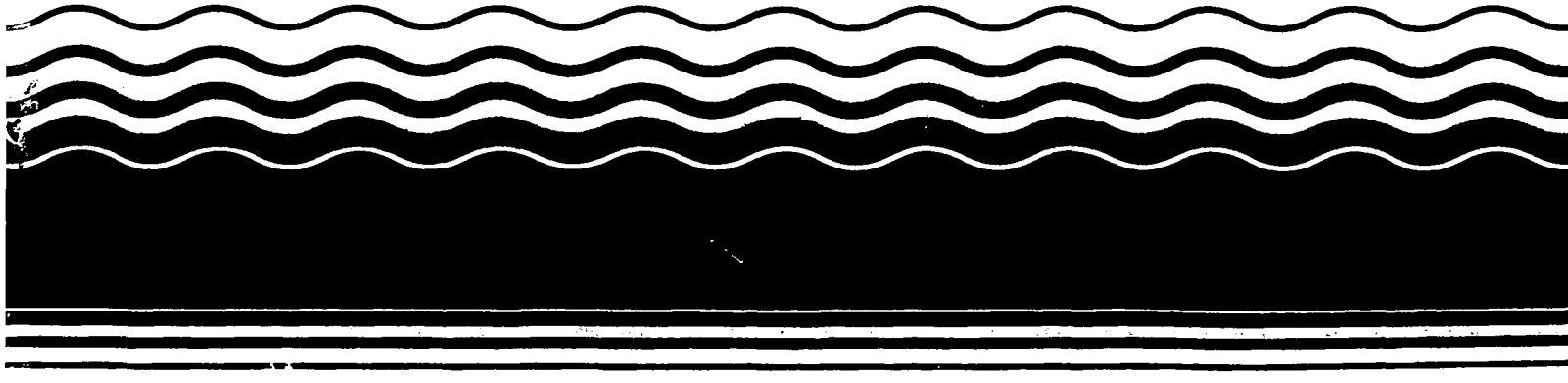
March 1997

EPA Superfund Record of Decision:

Middletown Airfield Site, Operable Unit 3, Middletown, PA 9/17/1996



DECLARATION
RECORD OF DECISION FOR MIDDLETOWN AIRFIELD
REMEDIAL ALTERNATIVE SELECTION

SITE NAME AND LOCATION

Middletown Airfield Site
Middletown, Pennsylvania

STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected final remedial action for the Middletown Airfield Site (Site), in Middletown, Pennsylvania, chosen in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended, and to the extent practicable, the National Contingency Plan (NCP), 40 CFR 300. This decision is based on this site's administrative record file.

The Commonwealth of Pennsylvania has concurred with the selected remedy.

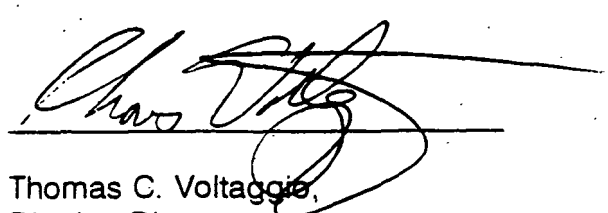
DESCRIPTION OF THE SELECTED REMEDY

Based on the results of the risk assessment (RA) conducted as part of the operable unit (OU) three investigation, it is concluded that the conditions at the Site, as controlled by the RODs for OU1 and OU2 and the ESD, pose no current or potential threat to human health or the environment and no additional remedial actions need to be implemented. Although potentially hazardous constituents are present in Site ground water, measures, that are compliant with applicable or relevant and appropriate requirements (ARARs) [more fully described in the 1987 Record of Decision (ROD), the 1990 ROD and the 1992 Explanation of Significant Differences (ESD)], are already being taken to remedy that condition. All of the requirements outlined in the 1987 ROD and the 1990 ROD (as modified by the 1992 ESD), will remain in effect. Consequently, the Site satisfies the requirements for a "No Further Action" decision.

The ongoing nature of the previous remedial actions have been taken into account prior to selecting the "No Further Action" decision for this operable unit.

DECLARATION STATEMENT

It has been determined that no significant risk or threat to human health or the environment exists from exposure to current conditions at this Site. Therefore, no additional action is necessary to provide adequate protection to human health and the environment.



9/17/96

Thomas C. Voltaggio, Date
Division Director
Hazardous Waste Management Division

Record of Decision for OU#3:

Middletown Air Field,

Middletown, PA

Site Name, Location, and Description

This is the Record of Decision (ROD) for Operable Unit #3, which addresses actions required by the ROD for Operable Unit #2 issued in 1990, as modified by the 1992 Explanation of Significant Differences (ESD) for the Middletown Air Field NPL Site (Site). The Site is located in Dauphin County, Pennsylvania, about 8 miles southeast of Harrisburg. It is situated between the boroughs of Highspire and Middletown along Pennsylvania Route 230, and bordered by the Susquehanna River to the south (Figure).

Pursuant to an Administrative Order on Consent for Operable Unit #2 issued by the United States Environmental Protection Agency (EPA), Region III, and executed by the United States Air Force (USAF), effective September 8, 1993, a Supplemental Studies Investigation (SSI) was conducted at the Middletown Air Field Site (Site), also known as the Harrisburg International Airport, Middletown, Pennsylvania. The United States Army Corps of Engineers (USACE), Omaha District, acting as service support agency for the USAF, contracted with ERM Program Management Company (ERM) to conduct the SSI at the Site and prepare a Focused Feasibility Study (FFS) report based on the data collected during the SSI. The FFS summarized current conditions at the Site and included a discussion of the work completed and results obtained from the SSI performed at the Site. The report also presented the results of a baseline risk assessment (RA) and evaluated the need for remedial action based on all the data collected during the SSI as well as data from a parallel study undertaken by the Pennsylvania Department of Transportation (PADOT) Bureau of Aviation.

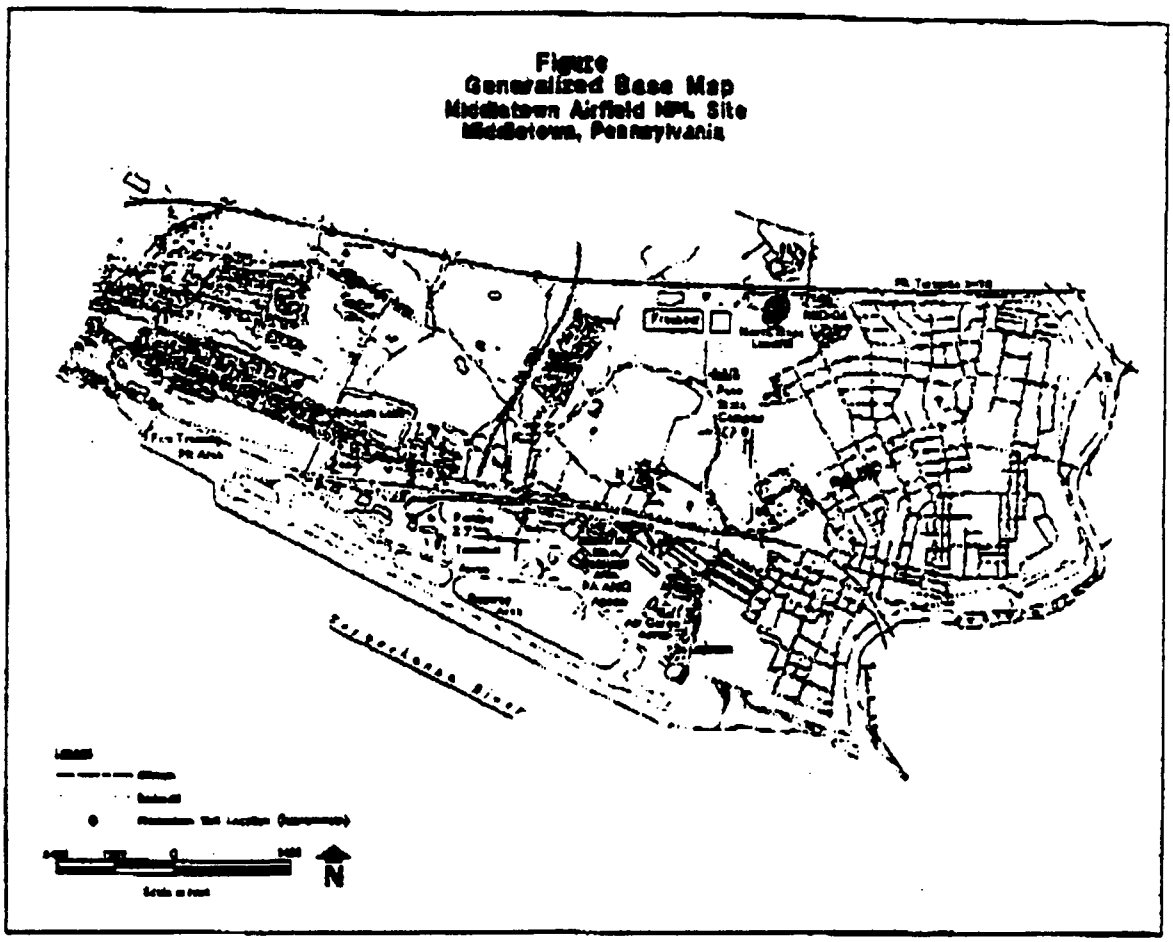
This Site lies within the Triassic Lowland of the Piedmont Physiographic Province. The Triassic Lowland is characterized by a gently undulating topography, which slopes generally to the south and is traversed by long low ridges and a few round hills. Altitudes on the site range from 280 feet above mean sea level (MSL) at the Susquehanna River to approximately 420 feet MSL at the northern boundary.

Very little of the site is an undisturbed natural area because of industrial/ commercial land uses. Site topography provides a significant portion of the driving force behind groundwater movement at the site. Groundwater withdrawals from several pumping centers also strongly influence groundwater flow at the site. On the basis of groundwater usage, the subsurface at the Middletown Airfield Site can be divided into three broad categories: overburden, shallow bedrock, and the deep bedrock. Usage of the deep bedrock groundwater (greater than 200 feet) is extensive. Usage of the shallow bedrock groundwater is less extensive, while groundwater in the overburden is not used as a direct water supply source.

Highlights of Community Participation

EPA has issued the FFS and Proposed Plan as part of its public participation responsibilities under §117(a) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), commonly referred to as "Superfund", as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) and to the extent possible, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP, 40 CFR 300) on August 1, 1996. The Proposed Plan summarized information which is found in greater detail in the 1996 FFS and other documents contained in the Administrative Record. A public comment period for the Proposed Plan was held from August 1, 1996 through August 30, 1996. No comments were received during this period.

The U.S. Environmental Protection Agency (EPA) is the lead agency for this Site.



This ROD identifies the option selected by EPA for remediating the Site based upon the Administrative Record, which includes the findings of the FFS and the Proposed Plan. The selected remediation alternative, chosen in accordance with CERCLA, as amended by SARA and, to the extent practicable, the NCP, provides for no additional action.

Site History and Enforcement Activities

The property was initially established Camp George Gordon Meade by the Army on rolling farmland as a basic training camp in response to the Spanish-American War in July, 1898. In less than a year, the tent camp reverted to a pickle farm operated by H. J. Heinz Company until May 15, 1917 when ground was broken for what eventually became known as the Olmsted Air Force Base in September 1947. Activities throughout the history of the Site included:

- warehousing and supply of parts, equipment, general supplies, petroleum, oil and lubricants (POL) for the Northeast Procurement District;
- complete aircraft overhaul including stripping, repainting, engine overhaul, reassembly, and equipment replacement;
- engine and aircraft testing; and
- general base support maintenance and operation.

The Air Force field and most of the Air Force industrial buildings (approximately 625 acres) are currently owned by PADOT which maintains and manages the Harrisburg International Airport (HIA) and the Pennsylvania Air National Guard. HIA conducts general airport operations and maintenance, and leases buildings to fixed base operators and industrial tenants. Operations performed by tenants at this Site include:

·aircraft maintenance operations, aircraft paint stripping and repainting, and parts cleaning,

·aircraft instrument overhaul and repair,

·fabric dying,

·machine shop operations,

·typewriter ribbon inking and cartridge assembly.

Approximately 218 acres of former administrative and housing facilities north of Route 230 are owned by the Harrisburg Campus of the Pennsylvania State University. An additional 93 acres of former Air Force warehouse facilities just south of the Pennsylvania Turnpike (I-76) were sold to First Industrial Realty Trust, Inc. in 1995 by Fruehauf Industries, which still retains ownership of the North Base Landfill. Fruehauf was involved in the manufacturing of truck trailers with Site activities including welding, punching, fastening, foaming and painting.

Studies have been conducted at the facility since 1983 to investigate and monitor areas that were affected by operations at the Site. In March 1983, the volatile organic compound (VOC) trichloroethylene (TCE) was discovered in six of ten HIA production wells which triggered subsequent environmental investigations and studies, and the installation of a water treatment system that is currently still in use at the facility.

In 1984, ground penetrating radar and magnetometer surveys were conducted by Roy F. Weston, Inc. at the Runway, Industrial, and North Base Landfill areas. Nine partially exposed 55-gallon drums were removed from a fill area located along a stream bank northeast of the Meade Heights housing complex. The drums were empty except for water and coatings of a hard, black tarry substance. These contents were sampled and found to be nonhazardous under the EPA characteristic of EP toxicity.

The Site was proposed for inclusion on the National Priorities List (NPL) on October 1, 1984 after EPA scored the Site using the Hazard Ranking System. The Site was included on the NPL on June 1, 1986. EPA's initial response centered around the presence of VOCs that were found in the groundwater beneath the site. The remedy selected to address the contaminated drinking water supply consisted of the installation of an air stripping system for the removal of VOCs to meet the drinking water standards. The existing treatment system consists of two air strippers, an ion exchange unit for the removal of hardness, and disinfection prior to distribution. The selected remedy was documented in the December 30, 1987 ROD.

In order to fully characterize the site and identify potential public health and environmental concerns, EPA issued a contract for an extensive study of the site in 1988. The study was conducted by NUS Corporation (NUS) and Gannett Fleming, Inc. (GF). The study was performed in two phases--the Remedial Investigation (RI) and the Feasibility Study (FS).

Based upon the 1988 study for the Site, Operable Unit 2 Record of Decision (1990 ROD), signed on December 17, 1990 involved continued operation of the existing drinking water supply treatment systems and the current distribution system, the institution of groundwater use restrictions, and additional monitoring of the water supply wells. The remedy contained in the 1990 ROD also involved the use of institutional controls to address direct contact and other threats from potentially contaminated soils that may be exposed at the Site during construction, demolition, excavation or other activities that disturb Site soils and involve the potential for worker and public exposure to presently contaminated soils.

A train spill occurred northwest of the runway area on June 4, 1988, approximately 500 feet west of Production Well HIA-12. Diethylene glycol and mineral oil were released as a result of the spill. Remediation at the site

of the spill included pumping ground water into settling tanks where skimming the mineral oil, biotreatment of the diethylene glycol, and reinjection of the treated water occurred. Remediation was completed in 1989.

In 1992, an ESD was issued to expand the scope of the SSI, required by the 1990 ROD, and to explain that the ground water remedy in the 1990 ROD was an interim action and the final decision would follow in the final ROD issued after the SSI was completed.

A potentially responsible party (PRP) search was conducted in 1988 by EPA's contractor Development Planning and Research Associates, Inc. (DPRA). DPRA conducted its research within the information collection guidelines as specified by EPA under the terms of CERCLA, as amended by SARA. The work was conducted in two phases. The first phase consisted of describing the Site and remedial activities; a title search and the identification of possible PRPs; and making recommendations for preparing and sending CERCLA 104(e) letters. The second phase consisted of analyzing EPA's requests for information letters issued to parties associated with the Site pursuant to CERCLA Section 104(e), and concluding the PRP search by making appropriate recommendations. Based upon the recommendations and additional followup information, EPA identified several PRPs for the contamination at the Site.

Scope and Role of Operable Unit

The SSI satisfies the requirements of the 1990 ROD and the 1992 ESD.

A December 1987 ROD was previously issued for this Site for the protection of the drinking water supply in the area. The ROD outlined an interim remedy which focused on the drinking water supply as an operable unit. The ROD remedy consisted of providing a potable water supply to those served by the HIA water system. A central air stripping tower and treatment plant was constructed for this purpose.

A second ROD was issued for the Site in 1990. Five major study areas (SAs), were designated.

- SA-1 Industrial Area - Includes HIA Ground Water Production Wells and Runway Area
- SA-2 Industrial Area - Soils
- SA-3 Fire Training Area - Soils
- SA-4 North Base Landfill Area - Ground Water
- SA-5 Meade Heights Area - Surface Water

The 1990 ROD addressed final remedial actions at SAs 1, 2, 3, and 4 and an interim action at SA-5, since the field investigation results at SA-5 were inconclusive in determining contaminant sources and their potential environmental impact.

Under the 1990 ROD, the remedy selection for SA-1 was the continued operation of the ground water treatment system currently in place at the Site, the institution of restrictions for all ground water use throughout the Site (which extends from the North Base Landfill to the Susquehanna River), and the addition of monitoring for the water supply wells.

The remedy for SA-2 and SA-3 included land use and access restrictions, and the development of public and worker health and safety requirements for activities involving construction, demolition, and excavation or other activities that would disturb the Site soil.

The remedy for SA-4, which provides protection of well MID-04, from contaminants found in the North Base Landfill, was coupled with the remedy for SA-1 to efficiently and effectively address ground water contamination at the Site.

The interim action required for SA-5 included a study evaluating the water quality and organisms living in the stream near Meade Heights.

The SSI was required by the EPA's December 1990 ROD, as clarified by the April 1992 Explanation of Significant Differences

(ESD). After reviewing the 1990 ROD, the Pennsylvania Department of Environmental Resources (PADER) asserted that the ROD did not fully investigate the relationship between soil and ground water contamination, nor did it consider active soil cleanup technologies. The EPA incorporated PADEP concerns into the 1992 ESD document. The ESD explained that the ground water remedy selected in the ROD was an interim action and that the final decision would follow in the ROD to be issued after the SSI was complete. The ESD also stated that the requirement, in the 1990 ROD, that the existing water supply system must continue to operate even if airport operations cease would be eliminated and reevaluated at a later date.

Therefore the SSI satisfies the requirements of the 1990 ROD and the 1992 ESD.

Summary of Site Characteristics

Industrial Area

In the Industrial Area (which includes the airports main pipeline distribution system, the runway, and lagoons), polyaromatic hydrocarbons (PAHs), low levels of VOCs, and inorganics were determined to be scattered throughout the area.

PAHs occur uniformly throughout the Site in relatively similar concentrations. Based upon published research, the presence of PAHs at the concentrations detected at this Site are common to developed areas throughout the world. Their presence is likely due to normal industrial/commercial operations such as asphalt, road and runway runoff, jet exhaust, and power plant emissions from Crawford Station which is directly east of the Site.

TCE was found in 13 of 200 soil samples above EPA's leaching screening level of 0.2 parts per billion (ppb). In addition, the TCE was located only at a single depth suggesting that it is not migrating. Low levels of 1,2-dichloroethene (DCE) were found in 7 of 200 samples and vinyl chloride was found in 2 of 200 samples. Like TCE, there does not appear to be a discrete source for these contaminants, nor do they appear to be migrating.

The inorganics were generally detected at levels which are consistent with naturally occurring or background levels in soils.

PAHs, barium, chromium and nickel exceeded EPA's risk-based concentration (RBC) soil screening levels, developed by EPA Region III. However, all of these contaminants, except for nickel in one sample, are below the Maximum Contaminant Levels (MCLs) in the ground water. While nickel exceeded the MCL in one sample, it should be noted that it is not a contaminant associated with Site operations as discussed in the 1990 Feasibility Study for operable unit two, which is a part of the Administrative Record; and likely reflects an elevated natural background condition.

The primary constituent of concern in the ground water at the Site is TCE. Out of 110 samples in the Industrial Area, TCE was detected above the MCL (5 ppb) in 70 samples, with concentrations ranging from 6 ppb to 1,000 ppb. Several other contaminants, such as tetrachloroethylene, vinyl chloride, and DCE, were detected above MCLs, however they were in fewer than 5% of the samples.

Results of the screening analysis indicated that a number of constituents, including PAHs, pesticides, and inorganics frequently exceeded ecological screening levels. However, the Site is almost entirely developed for industrial and commercial uses, and there is very little undisturbed natural habitat. Also, there are no federal or state threatened or endangered species and no critical environments in the vicinity of the Site. The presence of structures and pavement throughout the area, limits potential exposures of ecological receptors to soil in this area.

Meade Heights

From past sampling events, the organic

contaminants of concern for the Meade Heights area include acetone, bis(2-ethylhexyl)phthalate (DEHP), and methylene chloride. No contaminants exceeded the RBCs screening. Also, known association of these chemicals as common laboratory contaminants raises doubts that they are actually present at the Site.

The inorganics, cadmium and vanadium, were detected at levels which exceeded site-background, but are consistent with naturally occurring or regional levels in soils (Dragun, 1988 Soil Chemistry of Hazardous Materials; ATSDR, 1990 Toxicological Profile for Vanadium).

In one sample, methylene chloride (11 ppb) exceeded its toxicity characteristic leaching potential screening level (10 ppb). However, because it has never been determined to be a contaminant of concern at the Site in previous studies, only one sample exceeded the screening level, and it is a common laboratory contaminant (making its presence suspect), EPA has determined that there is no discernable risk associated with this contaminant.

Reported concentrations of PAHs and inorganics were representative of naturally occurring levels and at most present an insignificant threat to ecological receptors. No organic contaminants were detected above the Biological Technical Assistance Group's (BTAG) screening levels.

Penn State

PAHs, similar to the Industrial Area, and the pesticides; DDT, dieldrin, endosulfan, endrin, lindane, and chlordane were detected in the walkway that connects student housing with the campus.

Results of the RBC screening indicated that there are no unacceptable levels of risk associated with these soils, nor do the contaminants appear to be migrating based upon the soil and ground water data available.

Barium, cadmium, chromium, dieldrin, nickel, and PAHs exceeded the leaching screening levels in isolated occurrences. The limited occurrence of these elevated levels and their detection at below health-based concentrations in ground water indicates that the soil is not serving as a source of ground water contamination for these contaminants.

Reported concentrations of PAHs and inorganics were representative of naturally occurring levels and at most present an insignificant threat to ecological receptors.

Warehouse Area

Similar to the Industrial Area, soil samples collected in the Warehouse Area showed elevated concentrations of PAHs and some inorganics. However, evaluation of potential risks associated with exposure to these soils indicates that the levels of risk are acceptable under current established EPA guidelines for human exposure as determined by the risk assessment.

Reported soil constituents were also evaluated to assess the potential for soil constituents to leach into ground water. The primary contaminants to exceed leaching screening levels were barium and PAHs. However, a review of ground water data indicates that these constituents are not present at levels that present concern for the ground water at the Site based upon the findings of the risk assessment.

North Base Landfill

DEHP was detected in 7 of 9 sentinel wells east of the landfill ranging from 2 ppb to 54 ppb. The sentinel wells were installed to provide an early warning should contaminants from the landfill begin to migrate towards Middletown's MID-04 public water supply well. DEHP has not been detected in MID-04, which draws water from beneath the landfill.

Carbon tetrachloride (6 ppb to 8 ppb) was also detected in one off site, shallow well slightly above its MCL (5 ppb). Because it is a common laboratory contaminant, the validity of

its presence, based upon a low concentration sample raises doubt that it is actually present at the Site. Also, because it was discovered in a shallow well off site, it does not appear to be a site related contaminant.

Susquehanna River

Quarterly monitoring, as required by the 1990 ROD, as modified by the 1992 ESD, has resulted in the detection of several PAHs, VOCs, inorganics, and pesticides. Based upon the sampling data, these contaminants do not appear to be Site related, but are present regionally.

Organic constituents detected in surface water appear to be anomalous and do not represent a potential threat to ecological receptors. Inorganic constituents are either within the range of reported background concentrations or they infrequently exceeded the Biological Technical Assistance Group (BTAG) screening levels.

Organic and inorganic constituents in the sediment were generally within the range of upstream samples.

Meade Heights Stream

A one time sampling of the stream, resulted in the detection of VOCs, PAHs, and inorganics in the surface water. Review of the data suggests that upstream and downstream concentrations are likely results of natural variability. Historically, the area near the stream has exclusively been used for housing.

Summary of Site Risks

During the FFS, an analysis was conducted to estimate the potential human health or environmental problems that could result if contaminated media at the site were not remediated. This analysis is commonly referred to as the baseline risk assessment (RA). Potential human health problems are identified by calculating risk levels and hazard indices. Potential carcinogenic risks are identified by the risk level, and a $1x10^{-6}$ level indicates one additional case in 1,000,000 that an individual will develop cancer above the expected normal rate of approximately 330,000 per 1,000,000. The hazard index identifies the potential for the most sensitive individuals to be adversely affected by noncarcinogenic chemicals. If the hazard index exceeds one (1.0), there may be concern for potential non-cancer effects. As a rule, the greater the value of the hazard index above 1.0, the greater the level of concern. Changes in the hazard index, however, must be over one or more orders of magnitude (e.g., 10 times greater) to be significant.

In general, throughout all of the studies conducted at this Site, no soil samples were reported which indicated contamination had been detected above acceptable health and environmental based levels.

A RA was completed on the data generated by the SSI and PADOT's Comprehensive Testing Program. The results were integrated with information regarding Site use and Site activities in order to derive appropriate remedial action objectives. The RA focused on three distinct areas of concern; soil, ground water, and surface water/sediment. Each of these areas were further divided for analysis purposes.

The soils of the Industrial Area, Meade Heights, the Penn State Area, and the Warehouse Area were evaluated individually and were determined to contain levels below health-based and environmental concern. Cumulative risks for workers and residential exposures were estimated using RBCs. In addition, the RA also evaluated the potential for soils to pose a threat to ecological receptors. Based on the results of the RA and current and anticipated future Site use scenarios, more fully described in the FFS, no further actions are necessary to address soils at the Site since the acceptable range for health-based levels of 10^{-4} to 10^{-6}, as defined in the NCP, are not exceeded and EPA's BTAG group has confirmed that no unacceptable threat exists to the ecology in the area. The noncarcinogenic hazard indices were determined to be less than

one (1).

It should be noted that in the Terminal Area of the Industrial Area, the potential noncarcinogenic hazard index exceeded one (1), based almost entirely on the presence of manganese, which has not been identified as a Site related contaminant. However, when using the recent Integrated Risk Information System (IRIS) reference dose for manganese, the hazard index drops below one (1).

Elevated levels of several VOCs, PCBs, and inorganic constituents were detected in Vault J-5 of the storm sewer system (approximately 100 feet west of the southwestern corner of Building 208) during the SSI. A review of the soil and ground water data for this area suggests that no source is present in these media. The USACE has removed the storm sewer sediment, which contained the hazardous constituents, and the vault was resampled and verified that the presence of the hazardous substances was not due to an on site source. Therefore this segment of the storm sewer system presents no identified threat to human health and the environment. The remainder of the storm sewer system will be addressed during an on-going storm sewer discharge permitting process, which is not a part of this Superfund action.

Ground water in the Industrial Area, the North Base Landfill Area, and residential wells was evaluated in the RA. The primary constituent of concern in ground water in the Industrial Area is TCE. However, as previously discussed, remedial efforts are currently in place at the Site to manage TCE contamination in ground water in the Industrial and Runway Areas. Thus, under current and future realistic use scenarios, there are no unacceptable risks associated with the use of untreated ground water in these areas. Ground water in other areas was found to contain low levels of a few contaminants; however, none were determined to be a concern or a potential future public health threat because of the lack of exposure potential and the presence of institutional controls already in-place.

DEHP was detected in 7 of 9 sentinel wells east of the North Base Landfill ranging from 2 ppb to 54 ppb. The sentinel wells were installed to provide an early warning should contaminants from the landfill begin to migrate towards Middletown's MID-04 public water supply well. DEHP has not been detected in MID-04, which draws water from beneath the landfill. At those concentrations, even uncontrolled use of the ground water by the public would only represent a carcinogenic risk of 10^{-6}.

Surface water and sediment samples were collected from the Susquehanna River and from the Meade Heights stream. Human exposure to the contaminants detected in the surface water and sediments in the Susquehanna River was shown to be limited because of the restricted access to the shoreline. In the Meade Heights Area, the only contaminants of concern detected were inorganics. A comparison of upgradient and downgradient samples indicated that the concentrations detected were likely naturally occurring. The sample results, coupled with the fact that the most likely exposure to the constituents would be from children playing in the stream, and that the inorganics are poorly absorbed across the skin indicates that no unacceptable risk is expected to be associated with these constituents. EPA has determined that ecological receptors are not adversely impacted above acceptable levels based upon the constituents found in the surface water and sediments.

No contaminants of concern were identified in the surface water or sediment above BTAG screening levels.

Based on the RA, a summary of the Site's risk management conclusions are presented below.

- No additional action is necessary to address soils at the Site.

- Institutional restrictions on ground water use will be continued at the Site.

· It is expected that pumping and treating ground water in the Industrial Area will continue to control most of the discharge of ground water by containment to the Susquehanna River.

· On-going monitoring of surface water and sediment in the Susquehanna River is required as part of the 1990 ROD. In addition, two locations downgradient from the J-5 storm drain, situated next to building 208, are also to be sampled quarterly and evaluated in five years. The sampling frequency may be modified by PADEP after one year. These locations are the J-5 storm drain and the outfall of the J-5 storm line at Post Run. No other actions are deemed necessary at this time.

· On-going monitoring of the sentinel wells at the North Base Landfill Area is required as part of the 1990 ROD as protection for well MID-04. No other actions for this area are deemed necessary at this time.

· No action is required for surface water or sediment in Meade Heights.

· In the event that the HIA should cease or reduce the pumping of the production wells, PADEP will assess the potential for currently contained hazardous substances to migrate and may impose a sampling and review period (not to initially exceed 5 years), to assess whether any impact is occurring regarding the Susquehanna River. After the initial review, PADEP will again review the Site's status and determine if additional action is warranted.

· As required by the 1990 ROD, ground water use will be restricted in the event any new wells or modification of usage to existing wells are to be implemented at the Site. The extracted ground water must be tested and the results reported to PADEP. Ground water use at the Site will require a permit or approval by PADEP prior to use.

Based on the results of the SSI and RA, no additional action than that already required by the 1987 ROD and the 1990 ROD, as modified by the 1992 ESD, is required at the Site. It should also be noted that based upon this same study, the objectives of the Harrisburg Airport Master Plan can be realized within the requirements of the "No Further Action" alternative by utilizing engineering and institutional controls.

Description of "No Further Action" Alternative

Based on the results of the RA conducted as part of this SSI, EPA has determined that the conditions at the Site, as controlled by the previous two RODs and ESD, pose no unacceptable current or potential threat to human health or the environment and no additional remedial actions need to be implemented. Although potentially hazardous constituents are present in Site ground water, measures that are compliant with ARARs and are more fully described in the 1987 ROD, the 1990 ROD and the 1992 ESD, are already being taken to remedy that condition. All of the requirements outlined in the 1987 ROD and the 1990 ROD, as modified by the 1992 ESD, will remain in effect. Consequently, the Site satisfies the requirements for a "No Action" determination for operable unit #3.

The ongoing nature of the previous remedial actions and the additional monitoring of the J-5 storm drain have been taken into account prior to proposing the selection of the "No Further Action" alternative for this operable unit.

Evaluation of Previous Remedial Actions

Based upon the results of the RA, the "No Further Action" alternative is being proposed for this Site's final operable unit. It should be noted, however, that several interim remedial actions addressing ground water were required by both the 1987 ROD and the 1990 ROD, as modified by the 1992 ESD. These actions are more fully described in the RODs, which are a part of the Administrative Record. Based upon an evaluation of the RODs remedial actions at the time of the issuance, EPA has determined that these actions provide overall protection of human health and the environment. Furthermore, EPA has identified

all ARARs for this Site in the previous two RODs and ESD. Implementation of those remedies resulted in achievement of all ARARs.

All of the requirements outlined in the 1987 ROD and 1990 ROD, as modified by the 1992 ESD, will remain in effect and are necessary in order to provide for the protectiveness of human health and the environment and to comply with ARARs.

Glossary

Administrative Record: An official compilation of documents, data, reports, and other information that is available to the public and considered important to the status of and decisions made relative to a Superfund site..

Applicable or Relevant and Appropriate Requirements (ARARs): The federal and state requirements that a selected remedy must attain. These requirements may vary among sites and alternatives.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), or Superfund: A federal law passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act. The Act created a trust fund, known as Superfund, to investigate and clean up abandoned or uncontrolled hazardous waste sites.

Ground water: Water found beneath the earth's surface in geologic formations that are fully saturated. When present in quantity, ground water can be used as a water supply.

Hazard Index: A value used to evaluate the potential for noncarcinogenic effects that occur in humans.

National Priorities List (NPL): EPA's list of the nation's top priority hazardous waste sites that are eligible to receive federal money for response under Superfund.

Operable Unit (OU): A portion of a Superfund site that has been conceptually separated from the rest of the site to allow for easier management.

Record of Decision (ROD): A legal document that describes the final remedial actions selected for a Superfund site, why the remedial actions were chosen and others not, how much they cost, and how the public responded.

Remedial Action: Action to protect human health and the environment by restoring all media to their beneficial uses within a reasonable time frame.

Remedial Investigation/Feasibility Study (RI/FS): A two-part study of a hazardous waste site that supports the selection of a remedial action for a site. The first part, the RI, identifies the nature and extent of contamination at the site. The second part, the FS, identifies and evaluates alternatives for addressing the contamination.

Volatile Organic Compounds (VOCs): Organic liquids that readily evaporate under atmospheric conditions. Example VOCs include vinyl chloride and trichloroethene (TCE).

Responsiveness Summary

No comments were received during the 30-day public comment period beginning August 1, 1996 and ending August 30, 1996. In addition as offered in the press release printed in the July 31, 1996 edition of the Press and Journal of Middletown and a newspaper article appearing in the Patriot News about the same time, no verbal or written request was received by EPA requesting that a public meeting be held.