

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
PERMIT
FOR CORRECTIVE ACTION;
PURSUANT TO THE RESOURCE CONSERVATION AND RECOVERY ACT
AS AMENDED BY THE HAZARDOUS AND SOLID WASTE
AMENDMENTS OF 1984

Permittee: U.S. Department of Energy, Naval Reactors Laboratory Field Office
Permit Number: PA0890090004
Facility Location: West Mifflin Borough, Allegheny County, Pennsylvania

The United States Environmental Protection Agency (EPA) under the authority of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA) and the Hazardous and Solid Waste Amendments of 1984 (HSWA), 42 U.S.C. §§ 6901-6992k, and regulations promulgated thereunder and set forth at 40 C.F.R. Parts 260-271, has prepared this final permit (EPA Permit) for the U.S. Department of Energy, Naval Reactors Laboratory Field Office (Permittee) for its facility located on 208 acres in West Mifflin Borough, Allegheny County, Pennsylvania (Facility).

A. CORRECTIVE ACTION FOR CONTINUING RELEASES; PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT

Section 3004(u) of RCRA, 42 U.S.C. § 6924(u), and regulations codified at 40 C.F.R. § 264.101, require corrective action for all releases of hazardous waste or constituents from any solid waste management unit (SWMU) for all permitted treatment, storage, or disposal facilities, regardless of the time the waste was placed in the unit.

Under Section 3004(v) of RCRA, 42 U.S.C. § 6924(v), and 40 C.F.R. § 264.101(c), the EPA may require that corrective action at a permitted facility be taken beyond the facility boundary where necessary to protect human health and the environment, unless the owner or operator of the facility concerned demonstrates to the satisfaction of the EPA that, despite the owner or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such action.

Section 3005(c)(3) of RCRA, 42 U.S.C. § 6925(c)(3), and 40 C.F.R. § 270.32(b) provide that each permit shall contain such terms and conditions as EPA determines necessary to protect human health and the environment.

While the EPA has granted the Commonwealth of Pennsylvania (the Commonwealth) authorization to operate a state hazardous waste program in lieu of the federal program pursuant to Section 3006(b) of RCRA, 42 U.S.C. § 6926(b), the Commonwealth has not received authorization for the Corrective Action Program. EPA is, therefore, issuing this EPA Permit so that the Permittee can satisfy its Corrective Action requirements at the Facility.

B. REMEDY IMPLEMENTATION

On November 10, 2011, EPA issued a Final Decision and Response to Comments (FDRTC) in which it selected the implementation and maintenance of several remediation measures and institutional and engineering controls as the Final Remedy for the Facility. The FDRTC is set forth as Attachment A hereto and is made a part hereof. The components of the FDRTC have been completed; however, several components of the Final Remedy have continual obligations. Commencing on the Effective Date of this EPA Permit, the Permittee shall comply with the following continual obligations:

1. Restrict and control access to, and subsurface work in, the vicinity of two inactive, underground, 40-inch Coke Gas Lines (Inactive Gas Lines) to prevent potential exposure of on-site workers to hazardous wastes and hazardous constituents and to prevent disruptions to the integrity of the Inactive Gas Lines.
2. To the extent consistent with its obligations and authorities under law, the Permittee shall pursue placement of a notice in the deed prohibiting installation of on-site drinking water wells, should the property be transferred from Federal ownership.
3. Maintain existing vegetative cover and warning signs at the Inactive Waste Site and Bettis Landfill. Maintain existing covers at the former Underground Waste Oil Storage Tank (UST/WOT) areas. Maintain existing cover and warning signs at the Trash Chute Area.
4. Notify EPA in writing in advance of any changes to the Facility involving soil disturbances (i.e., excavation) for the Inactive Waste Site, Bettis Landfill, UST/WOT areas, Trash Chute area, and the Inactive Gas Lines.
5. Continue to conduct periodic environmental monitoring of the following media to detect changes in concentrations of chlorinated volatile organic compounds:
 - Material deposited in storm sewer system outfalls
 - On-site wells
 - Surface water and sediments in Bull Run Stream

Sampling locations, analysis parameters, and frequency are specified in Attachment C attached hereto and made a part hereof. The Permittee will annually provide to EPA results of the periodic monitoring and any proposed revisions to specific monitoring locations by the end of the following calendar year.

6. Monitor the use of the Matheson Valley property (Parcel ID: 243-H-155), formerly Valley National Gas property, and its successors, on an annual basis to confirm the absence or presence of water supply wells and/or plans for installation of such wells. If use (or plans for such use) of groundwater are confirmed, this use will be reported by the Facility to EPA. This requirement shall continue for twenty (20) years from the Effective Date of the FDRTC, dated November 10, 2011, or until EPA informs the Permittee in writing that this requirement is no longer necessary.

The components of the Final Remedy listed above are being implemented under the Facility's RCRA Storage Permit, No. PA0890090004, issued by the Pennsylvania Department of

Environmental Protection (PADEP) to the Permittee (DEP Permit). EPA has determined that protection of human health and the environment has been achieved at the Facility and will continue to be achieved at the Facility within the meaning of Section 3004(u) of RCRA as long as the Permittee complies with the Facility's DEP Permit and the continual obligations described above.

To satisfy the Permittee's RCRA Section 3004(u) Corrective Action obligations at the Facility, this EPA Permit incorporates, and provides for the implementation of, all the provisions of the DEP Permit and all attachments thereto. The DEP Permit contains all provisions of 40 C.F.R. § 270.30 and are enforceable hereunder. The DEP Permit is hereby incorporated into this EPA Permit by reference and made a part hereof as Attachment B.

Any inaccuracies found in the information submitted by the Permittee in connection with this EPA Permit may be grounds for the termination, modification, or revocation and reissuance of this EPA Permit, and potential enforcement action (see 40 C.F.R. §§ 270.41, 270.42 and 270.43). The Permittee must inform EPA immediately of any deviation from, or changes in, the information which would affect the Permittee's ability to comply with applicable statutes, regulations, and/or permit conditions.

The Permittee shall comply with all terms and conditions set forth in this EPA Permit, including the attachments hereto. Nothing in this EPA Permit shall limit EPA's authority to undertake, or require any person to undertake, response action or corrective action under any law, including, but not limited to, Sections 104 and 106 of CERCLA, 42 U.S.C. §§ 9604 and 9606, and Section 7003 of RCRA, 42 U.S.C. § 6973. Nor shall any permit condition relieve the Permittee of any obligations under any law, including, but not limited to, Section 103 of CERCLA, 42 U.S.C. § 9603, to report releases of hazardous wastes, constituents, or substances to, at, or from the Facility.

C. EFFECTIVE DATE

This EPA Permit is effective as of August 21, 2013, and shall remain in effect through August 20, 2023, unless revoked and reissued (per 40 C.F.R. § 270.41), terminated (in accordance with 40 C.F.R. § 270.43), or continued (in accordance with 40 C.F.R. § 270.51(a)).

D. SIGNATURE



Date: 8/21/13

for
John A. Armstead, Director
Land and Chemicals Division
U.S. Environmental Protection Agency, Region III

Attachment A: Final Decision and Response to Comments
November 10, 2011

Attachment B: Commonwealth of Pennsylvania

Department of Environmental Protection
Permit for Hazardous and Mixed Waste Facility Storage
Bettis Atomic Power Laboratory
PA0890090004
February 26, 2009

Attachment C: Environmental Monitoring Schedule

RESPONSE TO COMMENTS DOCUMENT

August 13, 2013

FINAL PERMIT DECISION

CORRECTIVE ACTION PERMIT

**U.S. Department of Energy
Naval Reactors Laboratory Field Office
West Mifflin, Pennsylvania
PA0890090004**

Draft Permit Comment Period – May 21, 2013 to July 5, 2013

This Response to Comments is prepared by EPA in accordance with the requirements of 40 CFR § 124.17.

Written comments regarding the draft permit were received from two parties prior to or during the public comment period. Below are the written comments (*italicized*) followed by EPA's response:

A. Bettis Comments (July 2, 2013)

1. Paragraph B.3 of the draft Permit includes maintaining existing vegetative cover and warning signs at the Inactive Waste Site (IWS) and Bettis Landfill (BL). During a March 28, 2012 meeting at the Bettis Laboratory with representatives of the Pennsylvania Department of Environmental Protection (PA DEP) and the U.S. Environmental Protection Agency, the PA DEP questioned whether capping and stabilization was needed for the inactive BL. Attached is a copy of our letter dated August 23, 2012 that was prepared for the PA DEP that summarizes an evaluation of capping alternatives and stability analyses for the BL which was completed during the RCRA RFI. The evaluation concluded that no stability issues exist and capping the area would have limited effects in reducing vertical infiltration of water. Therefore, Bettis recommends no additional requirements be imposed beyond those stated in the draft Permit.

Response to Comment A1:

EPA concurs with the comment; no changes to the permit were necessary.

2. Paragraph B.5 of the draft Permit states in part that "The Permittee will annually provide to EPA results of the periodic monitoring and any proposed revisions to specific monitoring locations in August of every year unless EPA agrees to a later submission date." Bettis recommends the following statement to be used in Paragraph B.5:

"The Permittee will annually provide to EPA results of the periodic monitoring and any proposed revisions to specific monitoring locations by the end of the following calendar year."

Response to Comment A2:

EPA concurs with the comment and has amended the sentence as suggested.

3. Paragraph B.6 of the draft Permit states “Monitor the use of Matheson Valley property (Parcel ID: 243-H-155), formerly Valley National Gas property, and its successors, on an annual basis to confirm the absence or presence of water supply wells and/or plans for installation of such wells. If use (or plans for such use) of groundwater are confirmed, this use will be reported by the Facility to EPA. This requirement shall continue for twenty (20) years from the Effective Date of this Permit or until EPA informs the Permittee in writing that this requirement is no longer necessary.” This requirement was previously identified in the November 10, 2011 Final Decision and Response to Comments (FDRTC) document. Bettis requests a specific date 20 years from the November 10, 2011 FDRTC requirement for duration of this task. Bettis recommends the following statement to be used in Paragraph B.6:

“Monitor the use of Matheson Valley property (Parcel ID: 243-H-155), formerly Valley National Gas property, and its successors, on an annual basis to confirm the absence or presence of water supply wells and/or plans for installation of such wells. If use (or plans for such use) of groundwater are confirmed, this use will be reported by the Facility to EPA. This requirement shall continue for twenty (20) years from Effective Date of the Final Decision and Response to Comments (FDRTC) document which is dated November 10, 2011, or until the EPA informs the Permittee in writing that this requirement is no longer necessary.”

Response to Comment A3:

EPA concurs with the comment and has amended the sentence as suggested.

4. Two editorial errors were noted:

a. Paragraph 5 of the Permit, states in part “Material deposited in storm sewer system outfalls.” This should read “Material deposited in storm sewer system outfalls.”

b. Footnote 1 of the Environmental Monitoring Schedule of Attachment C states in part:

“...certified laboratory (or equivalent) will be used for analyses for volatile organic compounds using EPA Method 8260B (or subsequent revision).”

Bettis recommends removing “will be used” such that the statement reads:

“...certified laboratory (or equivalent) for analyses for volatile organic compounds using EPA Method 8260B (or subsequent revision).”

Response to Comment A4:

EPA has corrected the editorial errors as suggested.

B. PA DEP Comment (May 17, 2013)

1. *[Bettis, EPA, and PA DEP] had also discussed grading of the IWS and landfill areas to promote positive stormwater drainage away from these areas to minimize infiltration into the waste mass. [PADEP] didn't see this addressed in the draft. [PADEP] recommends that Paragraph B.3 in the draft permit be modified to require Bettis to maintain 2-3% minimum grades in these areas to ensure proper drainage and to prevent ponding.*

Response to Comment B1:

EPA has determined that minimum slope requirements are not necessary in the IWS and landfill areas in order for the continuing corrective action obligations included in this permit to remain protective of human health and the environment. The vast majority, if not all, of the IWS is located on a significant hillside slope that permits adequate stormwater drainage. Grading the relatively flat portion of the landfill would likely not reduce stormwater infiltration rates more than the proposed capping study referenced in Comment A1 above, which was deemed unnecessary due to the small volume of stormwater infiltration into the area and the minimal reduction that capping would provide. In addition, any amount of infiltration through the remaining waste mass would likely discharge through seeps in the steep hillside downgradient of the landfill and be collected and treated by the Springwater Intercept System prior to discharge into Bull Run Stream.

ATTACHMENT A

Final Decision and Response to Comments, November 10, 2011



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III

FINAL DECISION AND RESPONSE TO COMMENTS

BETTIS ATOMIC POWER LABORATORY

WEST MIFFLIN, PENNSYLVANIA

EPA ID NO. PA0890090004

I. INTRODUCTION

The United States Environmental Protection Agency (EPA) is issuing this Final Decision and Response to Comments (FDRTC) for the Bettis Atomic Power Laboratory facility located at 814 Pittsburgh-McKeesport Boulevard, West Mifflin, Pennsylvania (Facility). The purpose of the FDRTC is to describe the final remedy selected by EPA to address releases of hazardous waste and/or hazardous constituents at the Facility.

On September 8, 2010, EPA issued a supplemental Statement of Basis (SB) in which it proposed to modify the remedy described in a previous Statement of Basis, issued September 29, 1995, and finalized in a previous Final Decision and Response to Comments, issued August 15, 1997 (the 1997 FDRTC). The supplemental SB is listed as Attachment A to this FDRTC.

II. FINAL REMEDY

The following components of the final remedy remain unchanged from the 1997 FDRTC:

- Restrict and control access to, and work in, the vicinity of two inactive, underground, 40-inch Coke Gas Lines (Inactive Gas Lines) to prevent potential exposure of on-site workers to hazardous constituents and to prevent disruptions to the integrity of the lines
- Follow health and safety procedures contained in 29 CFR Section 1910.120 during any work around the Inactive Gas Lines, the Inactive Waste Site (IWS), the former Underground Waste Oil Storage Tank (UST/WOT) areas and the Trash Chute area
- Follow health and safety procedures contained in 29 CFR Section 1910.120 when handling groundwater during any excavations at the Facility
- Place restrictions on the deed to Facility property to prevent the installation of on-site drinking water wells
- Maintain vegetative cover and warning signs at the Inactive Waste Site; maintain existing covers at the UST/WOT areas and maintain existing cover and warning signs at the Trash Chute Area
- Notify EPA of all designs and/or plans for changes to the Facility involving soil disturbances (i.e. excavation) for the Inactive Waste Site, the UST/WOT areas, the Trash Chute area and the Inactive Gas Lines
- Conduct periodic environmental monitoring of the following media to detect changes in concentration of specific contaminants:

- Material deposited in the two storm sewer system outfalls
- On-site wells
- Surface water and sediments in the Bull Run stream
- Conduct periodic inspections of access points in the Inactive Gas Lines to detect changes in volume of deposited materials
- Remediate Volatile Organic Compounds (VOCs) in soils at the Bettis Landfill using an in-situ soil vapor extraction (SVE) system

This FDRTC revises the remedy for groundwater which has been impacted by the IWS by both adding and deleting a remedy component of the 1997 FDRTC. The following component of the final remedy has been added today as proposed in the supplemental SB:

- The Facility shall monitor the use of Valley National Gases property, which is downgradient of the Inactive Waste Site, on an annual basis to confirm the absence or presence of water supply wells and/or plans for installation of such wells. If use (or plans for such use) of groundwater is confirmed, this use will be reported by the Facility to the EPA. This requirement shall continue for 20 years or until EPA determines that it is no longer necessary.

The following components of the final remedy set forth in the 1997 FDRTC are being deleted as of today as proposed in the supplemental SB:

- Construct a system that uses subsurface drainage at the northern portion of the Facility to collect groundwater before it discharges to the surface through seeps and natural springs. Collected groundwater will be treated using Granular Activated Carbon or Air Strippers with air emission controls. Treated water will be disposed of through National Pollution Discharge Elimination System (NPDES) permitted outfalls. Residues from treatment units will be disposed off-site in accordance with applicable regulations.
- Conduct periodic monitoring of water and sediments in runoff from the Facility to the Valley National Gases property

The additional remedy component (monitoring of groundwater use on an off-site property), combined with Allegheny County Health Department Regulations that preclude the use of groundwater as a drinking water supply and West Mifflin zoning ordinances that preclude residential construction in the affected area, will provide assurance that groundwater use on the Valley National Gases property does not occur without notification to EPA. With the implementation of this corrective measure, the construction of a subsurface drainage collection system should no longer be necessary. The remaining portions of the remedy as described in the 1997 FDRTC have been completed.

The final remedy as described in the supplemental SB and this FDRTC is enforceable through the Final Administrative Order on Consent, which became effective April 11, 2001.

III. PUBLIC COMMENT PERIOD

On September 8, 2010, EPA issued the supplemental SB. Consistent with public participation provisions under the Resource Conservation and Recovery Act (RCRA), EPA requested comments from the public on the proposed remedy as described in the SB. The commencement of a thirty (30)-day public comment period was announced in the *Tribune-Review* on September 8, 2010 and on the EPA Region III website. The public comment period ended on October 8, 2010.

IV. RESPONSE TO COMMENTS

EPA received no comments on the proposal. Consequently, the Final Remedy is unchanged from the proposal.

V. AUTHORITY

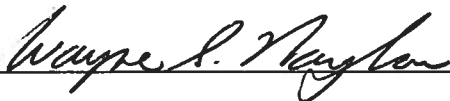
EPA is issuing this Final Decision under the authority of the Solid Waste Disposal Act, as amended by RCRA, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, 42 U.S.C. Sections 6901 to 6992k.

VI. DECLARATION

Based on the Administrative Record compiled for the Corrective Action at the Bettis Atomic Power Laboratory facility, EPA has determined that the Final Remedy selected in this Final Decision and Response to Comments is protective of human health and the environment.

LIST OF ATTACHMENTS

A. September 8, 2010, Statement of Basis.



Suf
Abraham Ferdas, Director
Land & Chemicals Division
U.S EPA Region III



Date



UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION III
STATEMENT OF BASIS
BETTIS ATOMIC POWER LABORATORY
WEST MIFFLIN, PENNSYLVANIA
EPA ID NO. PA0 89 009 0004

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I. Introduction

A. Facility Name

The United States Environmental Protection Agency (EPA) has prepared this supplemental Statement of Basis (SB) for the Bettis Atomic Power Laboratory facility located at West Mifflin, Pennsylvania (hereinafter referred to as the Facility).

The Facility is subject to the Corrective Action program under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, 42 U.S.C. Sections 6901 to 6992k. The Corrective Action program is designed to ensure that certain facilities subject to RCRA have investigated and cleaned up any releases of hazardous waste and hazardous constituents that have occurred at their property.

Information on the Corrective Action program as well as a fact sheet for the Facility can be found by navigating <http://www.epa.gov/reg3wcmd/correctiveaction.htm>.

EPA has reviewed data regarding the Facility which has become available since the issuance of the FDRTC. Based on this review, EPA has proposed to revise the final remedy for one portion of the Facility and is providing opportunity for public comment and review as described in Section VIII, below.

B. Proposed Decision

This supplemental SB explains EPA's proposed decision to amend the selected remedy for the Facility as described in the original Statement of Basis of September 29, 1995 and outlined in the Final Decision and Response to Comments (FDRTC), issued on August 15, 1997. In particular, this SB proposes to revise the remedy for groundwater which has been impacted by the Inactive Waste Site (IWS) by both adding and deleting a remedy component.

The additional proposed remedy component is monitoring of groundwater use on an off-site property. This proposed monitoring, combined with Allegheny County Health Department Regulations that preclude the use of groundwater as a drinking water supply and West Mifflin zoning ordinances that preclude residential construction in the affected area, will provide assurance that groundwater use on the subject property does not occur without notification to EPA.

The proposed remedy component to be deleted from the original FDRTC is the construction of a system to collect subsurface drainage at the IWS. With the addition of monitoring of groundwater use on an off-site property, the construction of this system should no longer be necessary.

This SB summarizes information which supports this proposed decision. This information can be found in greater detail in documents in the Administrative Record (AR).

C. Importance of Public Input

Before EPA makes a final decision on its proposal for the Facility, the public may participate in the remedy selection process by reviewing this SB and documents contained in the AR for the Facility. The AR contains documentation regarding conditions at the Facility and offsite properties which supports EPA's proposed decision. EPA encourages anyone interested to review the AR. The AR is available for public review at the EPA Region III office, the address of which is provided in Section VIII, below.

EPA will address all significant comments received during the public comment period. If EPA determines that new information or public comments warrant a modification to the proposed decision, EPA will modify the proposed decision or select other corrective measures based on such new information and/or public comments. EPA will approve its amended final decision in a revised Final Decision and Response to Comments.

II. Facility Background

The Facility is located in the Borough of West Mifflin, Allegheny County, Pennsylvania. The Facility covers approximately 208 acres and is bordered by commercial, industrial and residential areas.

The Facility is owned by the U.S. Department of Energy and has been dedicated to the design and support of reactor plants used in U.S. Naval nuclear-powered vessels since 1949. From 1926 to 1948, the Facility was used as an airfield. The IWS covers about 3.5 acres in the northern portion of the facility and was reportedly used until 1964 to dispose of household waste and excavation materials from construction projects. The area of the IWS is currently unused and covered with vegetation.

III. Summary of Environmental History

Initial environmental investigations from 1983 to 1989 found that environmental impacts at the Facility included contamination of soils and groundwater with volatile organic compounds (VOCs). In response, on September 28, 1990, the Facility entered into an Administrative Order on Consent with the EPA which required the Facility to conduct a RCRA Facility Investigation (RFI) and Corrective Measures Study (CMS) to address releases of hazardous wastes and/or constituents.

An RFI report was approved by EPA on August 2, 1994, and described environmental conditions at multiple areas at the Facility, including groundwater impacted by the IWS. The area immediately downgradient of the IWS includes property currently owned by the U.S. Department of Energy that was previously owned by Duquesne Light and Valley National Gases [(VNG – previously operated as Valley Welding Supply Company (VWSC)]. Residential and commercial properties are located downgradient of the IWS between VNG and Thompson Run, a perennial stream. The RFI investigated groundwater conditions downgradient of the IWS on Facility property and, to a lesser extent, VNG and former Duquesne Light property. A CMS was approved by EPA on March 16, 1995. EPA issued a Statement of Basis proposing Corrective Measures for the Facility on September 29, 1995 and the FDRTC on August 15, 1997. The

FDRTC selected corrective measures for the entire Facility and included the following measures for groundwater impacted by the IWS:

- Follow health and safety procedures contained in 29 CFR Sec. 1910.120 for any work around the IWS and when handling groundwater during any excavations at the Facility
- Place restrictions on the deed to Facility property to prevent the installation of on-site drinking water wells
- Maintain vegetative cover and warning signs at the IWS
- Notify EPA of all designs and/or plans for changes to the Facility involving soil disturbances (i.e., excavation) for the IWS
- Conduct periodic environmental monitoring of on-site and offsite wells, and water and sediments in runoff from the Facility to VWSC (now U.S. Department of Energy) property to detect changes in the concentration of specific contaminants
- Construct a subsurface drainage system at the northern portion of the facility to collect groundwater before it discharges to the surface through seeps and natural springs

On April 11, 2001, the Facility and EPA signed a Consent Order and Agreement (COA) which provided for Facility implementation of the corrective measures identified in the FDRTC. Since then, the Facility has implemented all but two of the corrective measures selected in the FDRTC. First, deed restrictions to prevent the installation of drinking water wells on Facility property are not necessary at this time due to other administrative controls which are being implemented while the Facility maintains ownership of the impacted property. Deed restrictions will be implemented in the event that the Facility sells the subject property. The second measure not implemented to date is the construction of a subsurface drainage system at the IWS.

At the time of the FDRTC, groundwater impacted by the IWS periodically discharged to the ground surface within an area known as the wet-weather ditch. The wet-weather ditch initiated on Facility property, crossed DL property, and dissipated on VWSC property such that seepage would, at times, flow onto VWSC property. The FDRTC found that subsurface drainage at the wet-weather ditch should be collected before it discharges to the ground surface because VWSC property may be developed as a residential area in the future and that groundwater may be used by VWSC or a future owner of the property.

For this particular corrective measure, the Facility has, per the COA, conducted further work to determine if the measure is appropriate under current and anticipated groundwater flow conditions in this area. On April 2, 2001, EPA approved a Groundwater Regime Study Plan prepared by the Facility to further characterize the subject conditions. In conjunction with this work, in 2002, the Facility purchased parcels of property downgradient of the IWS from both Duquesne Light and VNG (formerly VWSC) that encompassed the wet weather ditch and the area where the seepage occurred. On September 25, 2003, the Facility issued a Report of the Investigation of Surface Seepage at the IWS which reported the results of this study. This report included a characterization of the volume and extent of groundwater seepage in the wet-weather ditch and evaluated the sources of this seepage. In response to this report, on December 3, 2004, EPA requested the Facility to install an additional monitoring well downgradient of the IWS to further monitor groundwater above the Pittsburgh Coal Zone which underlies the IWS. On March 10, 2005, the Facility submitted a plan to install the requested well and subsequently submitted monitoring information for this well to EPA on April 14, 2006, and April 13, 2007.

Based on the results of the monitoring of this additional well, on June 27, 2008, EPA notified the Facility that any groundwater discharges and seeps between VNG property and Thompson Run Creek should also be characterized. These discharges and seeps were sampled by PADEP in July 2008 and further characterized by the Facility as reported to EPA on October 13, 2009.

Based on the additional investigations summarized above, the following new, pertinent information has become available regarding groundwater impacted (or potentially impacted) by the IWS since the issuance of the FDRTC:

- While groundwater seepage was observed within the wet-weather ditch on 165 days over a monitoring period of 33 months, no migration of seepage onto offsite (i.e., current VNG) property was observed during this period. Groundwater seepage from the wet-weather ditch is now expected to flow offsite only if it occurs concurrently with runoff during a significant storm event.
- Monitoring of a new well installed on Facility property downgradient of the wet-weather ditch indicates the IWS has impacted a water-bearing zone within the Pittsburgh Sandstone formation. This information suggests that water-bearing zones within the Pittsburgh Sandstone under VNG property may also be impacted by the IWS.
- Monitoring of a well and groundwater seeps/discharges between VNG property and Thompson Run indicates that groundwater downgradient of VNG property has not been impacted by the IWS. (The RFI had previously found that Thompson Run is not impacted by the IWS.)
- Based on predictive modeling, any intrusion of sub-surface VOC vapors into buildings on VNG property should not present an unacceptable risk under the current industrial use of this property. In addition, VNG property is currently zoned for industrial use only.

Based on this new information, the following additional corrective measure is proposed to ensure that groundwater impacted by the IWS does not present an unacceptable risk:

The Facility shall monitor the use of VNG property on an annual basis to confirm the absence or presence of water supply wells and/or plans for installation of such wells. If use (or plans for such use) of groundwater are confirmed, this use shall be reported by the Facility to the EPA. This requirement shall continue for 20 years or until such time as an equally protective control is implemented or until EPA determines that it is no longer necessary.

With the implementation of this additional corrective measure, the construction of a subsurface drainage collection system at the base of the IWS should no longer be necessary to mitigate groundwater impacted by the IWS. As a result, EPA proposes to delete this remedy component. If the Facility implements its plan to construct a flow separator over the wet-weather ditch to prevent both off-site migration of sediment and mixing of groundwater seepage and surface water from the affected area, EPA also proposes to delete the requirement to conduct periodic environmental monitoring of water and sediments in runoff from the Facility to VNG property after the flow separator has been installed.

IV. Evaluation of EPA's Proposed Decision

This section provides a description of the criteria EPA uses to evaluate a remedy under the Corrective Action Program. The criteria are applied in two phases. In the first phase, EPA evaluates three criteria, known as Threshold Criteria. In the second phase, EPA sometimes uses seven balancing criteria to select among alternative solutions, if more than one is proposed. The Facility has demonstrated that the current conditions meet the threshold criteria established by EPA. Because EPA is not selecting among alternatives, a complete evaluation of the balancing criteria is not necessary.

The following is a summary of EPA's evaluation of the Threshold Criteria:

1. Protect Human Health and the Environment - This proposed revised remedy protects human health and the environment from exposure to contamination. EPA's proposed revised decision meets this standard for current and anticipated land use. Impacted groundwater under Facility and VNG property is not currently used. The proposed revised remedy requires that future use of VNG be monitored to identify any known or planned use of groundwater under VNG property and that this information be reported to the EPA. In addition, intrusion of vapors from groundwater to existing buildings on VNG property is not expected to present an unacceptable risk under the current industrial use.

2. Achieve Media Cleanup Objectives - EPA's proposed remedy meets the appropriate cleanup objectives based on the current and reasonably anticipated use of Facility and VNG property. Both properties are currently used for industrial purposes and do not use groundwater. Use of groundwater on VNG property is not reasonably anticipated.

3. Remediating the Source of Releases - In all remedy decisions, EPA seeks to eliminate or reduce further releases of hazardous wastes or hazardous constituents that may pose a threat to human health and the environment. Sources of the releases at the Facility have been addressed by remedy components selected in the FDRTC of August 15, 1997. This proposed amendment addresses the migration of contaminants rather than the source of a release.

V. Institutional Controls

Under this proposed decision, some concentrations of contaminants will remain in groundwater under both Facility property and adjacent property which is used for industrial purposes. These concentrations may present an unacceptable risk if groundwater is used. In response, the proposed revised remedy includes a requirement that the Facility monitor the use (and/or potential use) of groundwater on the subject adjacent industrial property. ICs are generally non-engineered instruments such as administrative and/or legal controls that minimize the potential for human exposure to contamination by limiting land or resource use. The proposed IC is:

The facility shall monitor the use of VNG property on an annual basis to confirm the absence or presence of water supply wells and/or plans for installation of such wells. If use (or plans for such use) of groundwater are confirmed, this use will be reported by the Facility to the EPA. This requirement shall continue for 20 years or until such time as an

equally protective control is implemented or until EPA determines that it is no longer necessary.

This IC is enforceable through an amendment to an Administrative Order on Consent between EPA and the Facility dated April 11, 2001. If the Facility fails to meet its obligations under the Administrative Order or EPA, in its sole discretion, deems that additional ICs are necessary to protect human health or the environment, EPA has the authority to require and enforce additional ICs.

VI. Environmental Indicators

Under the Government Performance and Results Act (GPRA), EPA has set national goals to address RCRA corrective action facilities. Under GPRA, EPA evaluates two key environmental clean-up indicators for each facility: (1) Current Human Exposures Under Control and (2) Migration of Contaminated Groundwater Under Control. The Facility met these indicators on September 23, 2002.

VII. Financial Assurance

Due to the minimal cost of post-remedial activities (e.g., annual monitoring of an off-site property for groundwater use) that must be performed as part of the final remedy of the Facility, no financial assurance is required.

VIII. Public Participation

Interested persons are invited to comment on EPA's proposed decision. The public comment period will last thirty (30) calendar days from the date that notice is published in a local newspaper. Comments may be submitted by mail, fax, or e-mail to Mr. Griff Miller at the address listed below.

A public meeting will be held upon request. Requests for a public meeting should be made to Mr. Griff Miller at the address listed below. A meeting will not be scheduled unless one is requested.

The Administrative Record contains all the information considered by EPA for the proposed decision at this Facility. The Administrative Record is available at the following location:

U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19103
Contact: Mr. Griff Miller (3LC30)
Phone: (215) 814-3407
Fax: (215) 814-3113
Email: miller.griff@epa.gov

ATTACHMENT B

**Commonwealth of Pennsylvania
Department of Environmental Protection
Permit for Hazardous and Mixed Waste Storage
Bettis Atomic Power Laboratory
PA0890090004
February 26, 2009**

Pennsylvania Department of Environmental Protection

400 Waterfront Drive
Pittsburgh, PA 15222-4745
February 26, 2009

Southwest Regional Office

412-442-4000
Fax 412-442-4194

CERTIFIED MAIL NO. 7003 2260 0000 3141 2711

David W. Harper, Project Officer
Environment, Safety, Health and Radiological Controls
U. S. Department of Energy
Naval Reactors Laboratory Field Office
P. O. Box 109
West Mifflin, PA 15122-0109

Re: Bettis Atomic Laboratory
West Mifflin Borough
Allegheny County
I.D. No. PA0890090004
APS No. 531044
Authorization No. 780297

Dear Mr. Harper:

Enclosed is a Class 1 minor modification to Solid Waste Permit No. PA0890090004 for the operation of the Bettis Atomic Power Laboratory issued in accordance with Article V of the Solid Waste Management Act, 35 P.S. Sections 6018.101, et seq. Enclosed are affected pages (pages 1 through 3) of the permit.

This modification approves the following:

1. The new site operator, Bechtel Marine Propulsion Corporation.
2. The current name of the site owner, U. S. Department of Energy, Naval Reactors Laboratory Field Office.

Compliance with the terms and conditions set forth in the permit is mandatory. You have the right to file an appeal as to the modified terms and conditions.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa. C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, PA 17105-8457, 717-787-3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800-654-5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717-787-3483.

This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

David W. Harper, Project Officer

- 2 -

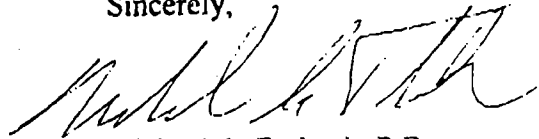
February 26, 2009

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.

IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717-787-3483) FOR MORE INFORMATION.

If you have any questions about the enclosed permit or requirements of the Solid Waste Management Act, please contact Carl Spadaro at 412-442-4157.

Sincerely,



Michael G. Forbeck, P.E.
Regional Manager
Waste Management

Enclosure

cc: Allegheny County Health
Department - (w/enclosure) **CERTIFIED MAIL NO. 7003 2260 0000 3141 2728**
West Mifflin Borough - (w/enclosure) - **CERTIFIED MAIL NO. 7003 2260 0000 3141 2735**
EPA Region 3 - Andrew Clibanoff - (w/enclosure)

2510-FM-BWM0085 Rev. 3/2007

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

**Permit
For
Hazardous Waste Treatment, Storage, and/or Disposal Facility**

Permit No. PA0890090004
Date Issued FEBRUARY 26, 2009
Date Expired FEBRUARY 2, 2016

Under the provisions of the Pennsylvania Solid Waste Management Act of July 7, 1980, Act 97, a permit for hazardous waste treatment, storage, and/or disposal facility in (municipality) W MIFFLIN BOROUGH in the County of ALLEGHENY is granted to (applicant) U.S. DEPARTMENT OF ENERGY, NAVAL REACTORS LABORATORY FIELD OFFICE (address) 814 PITTSBURGH-MCKEESPORT BLVD
WEST MIFFLIN PA 15122

This permit is applicable to the facility named as BETTIS ATOMIC POWER LABORATORY and described as:

HAZARDOUS WASTE CONTAINER STORAGE FACILITY AND MIXED WASTE CONTAINER STORAGE FACILITY

This permit is subject to modification, amendment and supplement by the Department of Environmental Protection and is further subject to revocation or suspension by the Department of Environmental Protection for any violation of the applicable laws or the rules and regulations adopted thereunder, for failure to comply in whole or in part with the conditions of this permit and the provisions set forth in the application no. PA0890090004 which is made a part hereof, or for causing any condition inimical to the public health, safety or welfare.

See attachment for waste limitations and/or special conditions

FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
PERMIT

FOR HAZARDOUS AND MIXED WASTE FACILITY STORAGE

Permittee: U. S. Department of Energy
Naval Reactors Laboratory Field Office **Permit Number:** PA0890090004

Facility: Bettis Atomic Power Laboratory

This permit is issued by the Commonwealth of Pennsylvania, Department of Environmental Protection (DEP), under authority of the Pennsylvania Solid Waste Management Act, the Act of July 7, 1980, Act 97, 35 P.S. Section 6018.101, et seq. (the Act) and DEP hazardous waste regulations to the U. S. Department of Energy, Naval Reactors Laboratory Field Office, Bettis Atomic Power Laboratory (hereafter called the Permittee), to operate a hazardous waste management facility located in West Mifflin, Allegheny County, Pennsylvania, at Latitude 40° 21' 37" North and Longitude 79° 53' 55" West.

The Permittee must comply with all terms and conditions of this permit. This permit consists of the conditions contained herein (Parts I – III consisting of Pages 1 through 19 and Attachments 1 through 6) and the applicable regulations contained in 25 Pa. Code Chapters 260a-270a as specified in the permit.

This permit is based on the assumption that the information submitted in the permit application attached to the Permittee's letter dated August 20, 2004 as modified by subsequent amendments dated January 12, 2005, August 30, 2005 and the Class 1 minor modification requests dated July 6, 2006, and January 30, 2009 (hereafter referred to as the Application) is accurate and that the facility will be constructed and/or operated as specified in the Application. Any inaccuracies found in this information may be grounds for the revocation or modification of this permit and potential enforcement action. The Permittee must inform DEP of any deviation from or changes in the information in the Application which would affect the Permittee's ability to comply with the applicable regulations or permit conditions.

This permit is conditioned upon full compliance with all applicable provisions of the Act; DEP regulations contained in 25 Pa. Code Chapters 260a-270a; the Clean Streams Law, 35 P.S. § 691.1, et seq.; the Air Pollution Control Act, 35 P.S. § 4001, et seq.; the Dam Safety and Encroachments Act, 32 P.S. § 693.1, et seq.; the Surface Mining Conservation and Reclamation Act, 52 P.S. § 1396.1, et seq.; the Coal Refuse Disposal Control Act, 52 P.S. § 30.51, et seq. all other Pennsylvania statutes related to the protection of the environment; and all Pennsylvania statutes related to the protection of public health, safety, and welfare. This permit is further conditioned upon full compliance with the EPA Final Administrative Order on Consent issued pursuant to Section 3008(h) of the Resource Conservation and Recovery Act.

This permit is effective as of February 26, 2009, and shall remain in effect until February 2, 2016, unless modified, terminated or revoked in accordance with 25 Pa. Code §§ 270a.41, 270a.42 and 270a.43, or continued.

PART I - STANDARD CONDITIONS

A. EFFECT OF PERMIT

This permit authorizes only the management of hazardous waste and mixed (hazardous and radioactive) waste expressly described in this permit and does not authorize any other management of hazardous or mixed waste. Issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local laws or regulations. Compliance with the terms of this permit does not constitute a defense to any action brought under the Act or any other law governing protection of public health or the environment.

B. PERMIT ACTIONS

This permit may be modified, terminated or revoked for cause as specified in 25 Pa. Code §§ 270a.41, 270a.42, and 270a.43 or suspended in accordance with the Act. The filing of a request for a permit modification, termination, or revocation or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay or supersede the applicability or enforceability of any permit condition.

C. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held to be invalid, the application of such provision to other circumstances and the remaining provisions of this permit shall not be affected thereby.

D. DEFINITIONS

For the purpose of this permit, terms used herein shall have the same meaning as those in Title 25 of the Pennsylvania Code (25 Pa. Code Chapters 260a-270a), unless this permit specifically states otherwise; where terms are not otherwise defined, the meaning associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term. "The Department" is the Department of Environmental Protection of the Commonwealth of Pennsylvania.

E. REPORTS, NOTIFICATIONS AND SUBMISSIONS TO THE DEPARTMENT

All reports, notifications or other submissions which are required by this permit to be sent or given to the Department should be sent certified mail or given to:

Department of Environmental Protection
Waste Management
400 Waterfront Drive
Pittsburgh, PA 15222-4745
Attn: Regional Manager

F. SIGNATORY REQUIREMENTS

All reports or other information requested by the Department shall be signed and certified as required by 40 CFR § 270.11 (incorporated by reference at 25 Pa. Code Chapter 270a).

G. DOCUMENTS TO BE MAINTAINED AT THE FACILITY SITE

The Permittee shall maintain at the facility, until closure is completed and certified by an independent registered professional engineer, the following documents and amendments, revisions and modifications to these documents as required by 40 CFR Part 264 (incorporated by reference at 25 Pa. Code Chapter 264a) and this permit:

1. Waste analysis plan.
2. Personnel training documents and records.
3. Contingency plan.
4. Closure plan.
5. Annually-adjusted cost estimate for facility closure.
6. Operating record.
7. Inspection schedules and logs.
8. Documents required by Part I, Sections H.8, 12, 14, and Part II, Sections D, E, G, H, J of this permit.

H. DUTIES AND REQUIREMENTS

1. Duty to Comply. The Permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and the regulations promulgated thereunder and is grounds for enforcement action; for permit revocation, revocation and reissuance, or modification; or for denial of a permit renewal application.

2. Duty to Reapply. If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must submit a complete application for a new permit at least 180 days before this permit expires.
3. Permit Expiration. This permit and all conditions therein will remain in effect beyond the permit's expiration date if the Permittee has submitted a timely, complete application and through no fault of the Permittee, the Department has not issued a new permit.
4. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense for the Permittee in an enforcement action to argue that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
5. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems of storage, treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the Act, the regulations, and the conditions of this permit. Proper operation and maintenance shall include effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. The Permittee shall operate back-up or auxiliary facilities or similar systems if necessary to achieve compliance with the Act, the regulations and the conditions of the permit.
6. Duty to Provide Information. The Permittee shall furnish to the Department within a reasonable time, any relevant information which the Department may request to determine whether cause exists for modifying, terminating or revoking this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Department, upon request, copies of records required to be kept by the Permittee pursuant to the Act, the regulations, or any permit condition.
7. Inspection and Entry. The Permittee shall allow the Department, its agents and authorized representatives, upon the presentation of credentials and other documents as may be required by law, or without advance notice or a search warrant to:
 - a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records concerning the regulated facility or activity are kept;

- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the Act, the regulations, or this permit;
- d. Sample or monitor any substances or parameters at any location for the purposes of assuring permit compliance or as otherwise authorized by the Act or the regulations;
- e. Respond to emergencies at the hazardous waste and mixed waste storage facilities without the need to obtain DOE access authorization under the Atomic Energy Act; and
- f. Engage in any other activities necessary or appropriate to the documentation of events or conditions at any locations.

8. Monitoring and Records.

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of 40 CFR Part 261 or an equivalent method approved by the Department. Laboratory methods must be those specified in Appendix III of 40 CFR Part 261; Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (U.S. EPA Document SW-846, most recent edition); Standard Methods for Examination of Water and Wastewater; Methods for Chemical Analysis of Water and Wastes (U.S. EPA - 600/4 - 79-020); or an equivalent method approved by the Department and as specified in the attached waste analysis plan (40 CFR Part 261 incorporated by reference at 25 Pa. Code Chapter 261a).
- b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by the Act, the regulations, or this permit, and all records of all data used to complete the Application for this permit for a period of at least 3 years from the date of the sample, measurement, report or record, or application. These periods may be extended by request of the Department at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility.
- c. The Permittee shall, at a minimum, keep monitoring records which include the following information:

- (1) The dates, exact place, and times of sampling or measurements;
 - (2) The individuals who performed the sampling or measurements;
 - (3) The dates analyses were performed;
 - (4) The individuals who performed the analyses;
 - (5) The analytical techniques or methods used;
 - (6) The results of such analyses.
9. Reporting Planned Changes. The Permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. This notice must include a description of all incidents of noncompliance reasonably expected to result from the proposed changes. The Permittee shall not modify the facility without first obtaining a permit from the Department.
10. Anticipated Noncompliance. The Permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
11. Transfer of Permits. This permit shall not be transferred or assigned to any other person or municipality.
12. Twenty-Four Hour Reporting. The Permittee shall report to the Department any noncompliance with the Act, the regulations or any condition of this permit or any occurrence or event at the facility which may endanger health or the environment.
- a. Information shall be provided orally within twenty-four (24) hours from the time the Permittee becomes aware of the circumstances. This report shall include the following:
 - (1) Information concerning release or potential release of any hazardous waste from the facility that may endanger public drinking water supply sources.
 - (2) Any information of a release, potential release, or discharge of hazardous waste from the facility, or information of a potential or actual fire or explosion at the facility, which may threaten the environment or human health.
 - b. The description of the occurrence and its cause shall include:
 - (1) Name, address, and telephone number of the owner or operator;

- (2) Name, address, and telephone number of the facility;
 - (3) Date, time, and type of incident;
 - (4) Name and quantity of material(s) involved;
 - (5) The extent of injuries, if any;
 - (6) An assessment of actual or potential hazards to the environment and human health at or near the facility; and
 - (7) Estimated quantity and disposition of recovered material that resulted from the incident.
- c. A written submission shall also be provided to the Department within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of non-compliance (including exact dates and times); if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Permittee need not comply with the five (5) day written notice requirement if the Department extends it to fifteen (15) days.
13. Other Noncompliance. The Permittee shall report to the Department all other instances of noncompliance not otherwise required to be reported above, at the time monitoring reports are submitted. The reports shall contain the information listed in Permit Condition I.H.12.
14. Other Information. Whenever the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Department, or whenever the Permittee becomes aware of circumstances which require a modification or clarification of any fact or representation made to the Department in connection with a permit application, it shall promptly submit such facts or information to the Department.

PART II - GENERAL FACILITY CONDITIONS

A. DESIGN AND OPERATION OF FACILITY

The Permittee shall maintain and operate the facility to minimize the possibility of a fire, explosion, or release of hazardous waste or hazardous waste constituents to air, soil, surface water, or groundwater which could threaten human health or the environment.

B. GENERAL WASTE ANALYSIS

The Permittee shall follow the procedures described in the attached waste analysis plan, Attachment 1. The Permittee shall verify its waste analysis as part of its quality assurance program, in accordance with current EPA practices (Test Methods for Evaluating Solid Waste: Physical/Chemical Methods SW-846, most recent edition) or equivalent methods approved by the Department in accordance with procedures in 40 CFR §260.21 (incorporated by reference at 25 Pa. Code Chapter 260a); and at a minimum maintain proper functional instruments, use approved sampling and analytical methods, verify the validity of sampling and analytical procedures, and perform correct calculations. The Permittee shall recharacterize its waste at least annually unless it is certified that the waste generation process has not changed. Module 1 applications for treated mixed waste from other Naval Nuclear Propulsion Program facilities shall be submitted to the Department at least 10 days prior to acceptance of such waste for storage by the Permittee.

C. SECURITY

The Permittee shall comply with the security provisions of 40 CFR § 264.14 (incorporated by reference at 25 Pa. Code Chapter 264a).

D. GENERAL INSPECTION REQUIREMENTS

The Permittee shall follow the inspection plan set out in the Inspection Schedule, Attachment 2. The Permittee shall remedy any deterioration or malfunction discovered by an inspection and maintain records of inspections as required by 40 CFR § 264.15 (incorporated by reference at 25 Pa. Code Chapter 264a).

E. PERSONNEL TRAINING

The Permittee shall conduct personnel training as required by 40 CFR § 264.16 (incorporated by reference at 25 Pa. Code Chapter 264a). This training program shall follow the attached outline, Attachment 3. The Permittee shall maintain training documents and records.

F. PREPAREDNESS AND PREVENTION

1. Required Equipment. At a minimum, the Permittee shall equip the facility with the equipment set forth in the PPC Plan, Attachment 4.
2. Testing and Maintenance of Equipment. The Permittee shall test and maintain the equipment specified in the previous permit condition and in Attachment 4 as necessary to assure its proper operation in time of emergency.
3. Access to Communications or Alarm System. The Permittee shall maintain access to the communications or alarm system as required by 40 CFR § 264.34 (incorporated by reference at 25 Pa. Code Chapter 264a).
4. Required Aisle Space. At a minimum, the Permittee shall maintain aisle space as required by 40 CFR § 264.35 (incorporated by reference at 25 Pa. Code Chapter 264a) and as shown on the Plans and Specifications, Attachment 5.
5. Arrangements with Local Authorities. The Permittee shall maintain arrangements with State and local authorities as required by 40 CFR § 264.37 (incorporated by reference at 25 Pa. Code Chapter 264a). If State or local officials refuse to enter into or renew existing preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record.

G. PREPAREDNESS, PREVENTION AND CONTINGENCY (PPC) PLAN

1. Implementation of PPC Plan. The Permittee shall immediately carry out the provisions of the PPC Plan, Attachment 4, whenever there is a fire, explosion, emission or discharge of hazardous waste or hazardous waste constituents which could threaten human health or the environment. Off-site response personnel shall be allowed access to the hazardous waste storage facility or mixed waste storage facility without the need to obtain DOE access authorization under the Atomic Energy Act.
2. Copies of Plan. The Permittee shall comply with the requirements of 40 CFR § 264.53 (incorporated by reference at 25 Pa. Code Chapter 264a).
3. Amendments to Plan. The Permittee shall review and immediately amend, if necessary, the PPC Plan, as required by 40 CFR § 264.54 (incorporated by reference at 25 Pa. Code Chapter 264a).
4. Emergency Coordinator. The Permittee shall comply with the requirements of 40 CFR § 264.55 (incorporated by reference at 25 Pa. Code Chapter 264a).
5. Emergency Procedures. The Permittee shall comply with the requirements of 40 CFR § 264.56 (incorporated by reference at 25 Pa. Code Chapter 264a) and 25 Pa. Code § 264a.56.

H. RECORDKEEPING AND REPORTING

1. Operating Record. The Permittee shall maintain a written operating record at the facility in accordance with 40 CFR § 264.73 (incorporated by reference at 25 Pa. Code Chapter 264a).
2. Biennial Report. The Permittee shall comply with all applicable biennial report requirements of 40 CFR § 264.75 (incorporated by reference at 25 Pa. Code Chapter 264a).
3. Required Reports. The Permittee shall comply with all applicable reporting requirements as described in Part I, Sections E, F, H and Part II, Sections G, H, I and M of this permit.

I. CLOSURE

1. Performance Standard. The Permittee shall close the facility as required by 40 CFR § 264.111 (incorporated by reference at 25 Pa. Code Chapter 264a) and in accordance with the Closure Plan, Attachment 6.
2. Amendment to Closure Plan. The Permittee shall amend the Closure Plan in accordance with 40 CFR § 264.112(c) (incorporated by reference at 25 Pa. Code Chapter 264a) whenever necessary.
3. Notification of Closure. The Permittee shall notify the Department in writing at least 45 days prior to the date he expects to begin final closure of the facility.
4. Time Allowed for Closure. After receiving the final volume of hazardous waste, the Permittee shall remove from the site all hazardous waste and shall complete closure activities in accordance with the schedules specified in the Closure Plan, Attachment 6.
5. Disposal or Decontamination of Equipment. The Permittee shall decontaminate and/or dispose of all facility equipment and structures as required by the Closure Plan, Attachment 6.
6. Certification of Closure. The Permittee shall certify that the facility has been closed in accordance with the specifications in the Closure Plan as required by 40 CFR § 264.115 (incorporated by reference at 25 Pa. Code Chapter 264a) and 25 Pa. Code § 264a.115.

J. COST ESTIMATE FOR FACILITY CLOSURE

1. Annual Adjustment. The Permittee shall adjust the cost estimate for closure and management of the mixed wastes identified in the Site Treatment Plan as described in Permit Condition II.M for inflation within 30 days after each anniversary of the date on which the first cost estimate was provided to the Department.

2. Adjustment for Changed Conditions. The Permittee shall revise the cost estimate whenever there is a change in the facility's closure plan or in the measures necessary to prevent adverse effects upon the environment.
3. Availability. The Permittee must keep the latest cost estimate at the facility.

K. GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE

The Permittee shall comply with the requirements of 40 CFR § 264.17 (incorporated by reference at 25 Pa. Code Chapter 264a).

L. CONTRACTORS

1. Independent contractors and agents who are to operate under this permit shall be subject to the applicable provisions of the Solid Waste Management Act and Clean Streams Law. Such independent contractors, agents and the permittee shall be jointly and severably liable without regard to fault for violations of the Solid Waste Management Act and the Clean Streams Law which occurred during the course of facility operations.
2. Any independent contractors or agents retained by the Permittee to construct or operate this site shall be subject to prior compliance history review by the Department as specified in Section 503 of the Solid Waste Management Act.

M. MIXED WASTE SITE TREATMENT PLAN

1. The Permittee shall submit to the Department for review and approval an annual Site Treatment Plan by April 30 each year addressing:
 - a. Amount of mixed waste in storage at the end of the calendar year and estimated amount of mixed waste anticipated to be stored in the next 5 years,
 - b. status of treating the mixed waste identified in the Plan,
 - c. schedules for shipping mixed waste to off-site treatment facilities,
 - d. status of extensions, permit applications, treatment variances or no migration petitions of any off-site treatment facilities identified in the Plan,
 - e. new mixed wastes and changes to existing mixed wastes generated by the facility.

- f. disposition of post-treatment residuals from off-site treated mixed wastes,
 - g. identification of problems in implementing the Plan and actions taken to resolve the problems,
 - h. summary of manifests, bills of lading and other shipping papers and land disposal restriction notices reflecting offsite shipment of mixed waste.
2. Department approval of the annual Site Treatment plan will be considered an approved plan under this permit.

N. LAND DISPOSAL RESTRICTIONS

The Permittee shall comply with standards under 40 CFR Part 268 (incorporated by reference at 25 Pa. Code Chapter 268a, except where stated at 25 Pa. Code § 268a.1) applicable to hazardous waste storage facilities.

PART III - STORAGE IN CONTAINERS

A. WASTE IDENTIFICATION

The Permittee may store the hazardous and mixed wastes identified in Attachment 1 to this permit in containers at the facility subject to the terms of this permit.

B. DURATION OF STORAGE

The Permittee shall notify the Department in writing of its intent to store containers of hazardous waste at this facility in excess of one year. The Permittee shall submit the notice on or before the date on which the waste will have been stored for one year. The notice shall describe the containers by identification number (referring to Figure PPCP.8), waste type and efforts made to arrange for off site transportation of the waste. The Permittee shall continue to notify the Department in writing of the status of the containers being stored in excess of one year every six months after the initial notification. The Permittee shall notify the Department after the waste has been transported off site.

The Permittee may store mixed wastes at the mixed waste storage facility in excess of one year as long as such storage is in accordance with the approved Site Treatment Plan as described in Permit Condition II.M.

C. CONDITION OF CONTAINERS

If a container holding hazardous or mixed waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the Permittee shall transfer the waste from such container to a container that is in good condition or otherwise manage the waste in compliance with the conditions of this permit.

D. PLACEMENT REQUIREMENTS

1. The Permittee shall store all hazardous waste containers in accordance with the following content and location requirements in Building M:
 - a. Area I
 - 1) Maximum Storage Allowed - 935 gallons in containers (17 - 55 gallon drums or equivalent)
 - 2) A total volume for containers in Storage Cabinet 6 of 45-gallons
 - 3) A total volume for containers in Storage Cabinet 7 of 45 gallons

b. Area II

Maximum Storage Allowed - 1,320 gallons in containers (24 - 55 gallon drums or equivalent)

c. Area III

Maximum Storage Allowed - 110 gallons in containers (e.g. 55-gallon drums) in each Storage Cabinet 1 through 3 and a total additional volume of 15 gallons for all smaller containers in each storage cabinet.

d. Area IV

1) Maximum Storage Allowed - 1,650 gallons in containers (30 - 55-gallon drums or equivalent)

2) A total volume for containers in Storage Cabinet 4 of 45 gallons

e. Area V

1) Maximum Storage Allowed - 715 gallons in containers (13 - 55-gallon drums or equivalent)

2) A total volume for containers in Storage Cabinet 5 of 45 gallons

2. ~~The Permittee shall store all mixed waste containers (including treated mixed waste from other DOE Naval Nuclear Propulsion Program facilities) in Building D in accordance with the following:~~

a. Storage and Loading Area

Maximum Storage Allowed - 8,360 gallons in containers (152 - 55 gallon drums or equivalent)

b. Mixed Waste Storage Area

1) Maximum Storage Allowed - 29,590 gallons in containers (538 - 55 gallon drums or equivalent)

2) A total volume for two small container flammable storage cabinets of 60 gallons of flammable liquid.

- 3) A total volume for the drum flammable storage cabinet of 120 gallons of combustible and flammable liquids, with a limit of 60 gallons of flammable liquids.
- 4) A total volume for the small container waste storage cabinet of 55 gallons.

E. COMPATIBILITY OF WASTES WITH CONTAINERS

The Permittee shall ensure that the ability of the container to contain the waste is not impaired as required by 40 CFR § 264.172 (incorporated by reference at 25 Pa. Code Chapter 264a).

F. MANAGEMENT OF CONTAINERS

The Permittee shall manage containers as required by 40 CFR § 264.173 (incorporated by reference at 25 Pa. Code Chapter 264a).

G. CONTAINMENT

The Permittee shall construct and/or maintain the containment system as required by 40 CFR § 264.175 (incorporated by reference at 25 Pa. Code Chapter 264a) and the attached Plans and Specifications, Attachment 5.

H. CONTAINER STACKING HEIGHT, WIDTH, AND DEPTH

The Permittee shall store containers of hazardous waste as required by 25 Pa. Code § 264a.173 and the attached Plans and Specifications, Attachment 5. Containers may not be stacked in the hazardous waste storage facility. Containers may be stacked no higher than 9 feet in the mixed waste storage facility.

I. SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTES

1. The Permittee shall not locate containers holding ignitable or reactive wastes within 15 meters (50 feet) of the facility's property line. Ignitable and reactive (cyanide) wastes may only be stored as indicated in Attachment 5.
2. The Permittee shall document compliance with Section 1. of this condition as required by 40 CFR § 264.17(c) (incorporated by reference at 25 Pa. Code Chapter 264a) and place this documentation in the operating record (Permit Condition II.H.1).

J. SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTES

1. **Placement of Incompatible Wastes.** The placement of incompatible wastes and/or materials in the same container is prohibited. Acids and bases must be placed in separate areas. Containers with Waste Code D002 labels should be identified as an acid or base (alkaline).
2. **Incompatible Wastes in Unwashed Containers.** The Permittee shall not place hazardous or mixed waste in an unwashed container that previously held an incompatible waste or material.
3. **Storage of Incompatible Wastes.** The Permittee shall store containers of incompatible wastes as indicated in the attached plans, Attachment 5, as required by 40 CFR § 264.177 (incorporated by reference at 25 Pa. Code Chapter 264a).
4. **Documentation.** The Permittee must document compliance with Sections 1. and 2. of this condition as required by 40 CFR § 264.17(c) (incorporated by reference at 25 Pa. Code Chapter 264a) and place this documentation in the operating record (Permit Condition II.H.1.).

K. AIR EMISSION STANDARD

The Permittee shall comply with the applicable provisions of 40 CFR §§ 264.1086(c)(1) through (c)(5) (incorporated by reference at 25 Pa. Code Chapter 264a), relating to controlling volatile organic air emissions from containers, for hazardous waste stored in containers.

L. ON-SITE TREATMENT

Treatment of on-site generated mixed waste to change one or more characteristic of hazardous waste (defined at 40 CFR Part 261, Subpart C which is incorporated by reference at 25 Pa. Code Chapter 261a) is covered by the permit by rule provisions of 25 Pa. Code §§ 270a.60(a) and (b)(2) as long as the Permittee complies with those provisions and the Mixed Waste Management Plan, effective on September 29, 1995 and as may be modified, and notifies the Department of any new types of treatment and mixed wastes to be treated.

M. INSPECTIONS

The Permittee shall inspect each storage area subject to this permit as required by 40 CFR § 264.174 (incorporated by reference at 25 Pa. Code Chapter 264a) and Attachment 2.

LIST OF ATTACHMENTS

Attachment 1	Waste Analysis Plan
Attachment 2	Inspection Schedule
Attachment 3	Personnel Training Outline
Attachment 4	Contingency Plan
Attachment 5	Plans and Specifications of Container Storage Areas
Attachment 6	Closure Plan

Attachment C

Environmental Monitoring Schedule

Media	Location (see map)	Analysis Parameters ¹	Frequency
Sediment	NPDES Outfall 001 stilling basin	VOCs	Annually
	NPDES Outfall 002 stilling basin ²	VOCs	Annually
	Bull Run Stream location BR1	VOCs	Annually
	Bull Run Stream location BR5	VOCs	Annually
Groundwater	Benwood Limestone Zone: Well 35, 57, 68, 80, 92, and 100	VOCs	Annually
	Sewickley Sandstone Zone: Well 36, 51, 65, and 98.	VOCs	Annually
	Pittsburgh Sandstone Zone: Well 60, 61, 75, and 96.	VOCs	Annually
	Pittsburgh Coal Zone: Well 44a, and 95	VOCs	Annually
Surface water	Bull Run Stream location BR1	VOCs	Annually
	Bull Run Stream location BR5	VOCs	Annually

¹ Samples will be analyzed by a National Environmental Laboratory Accreditation Conference certified laboratory (or equivalent) for analyses for volatile organic compounds using EPA Method 8260B (or subsequent revision). VOCs are chlorinated volatile organic compounds.

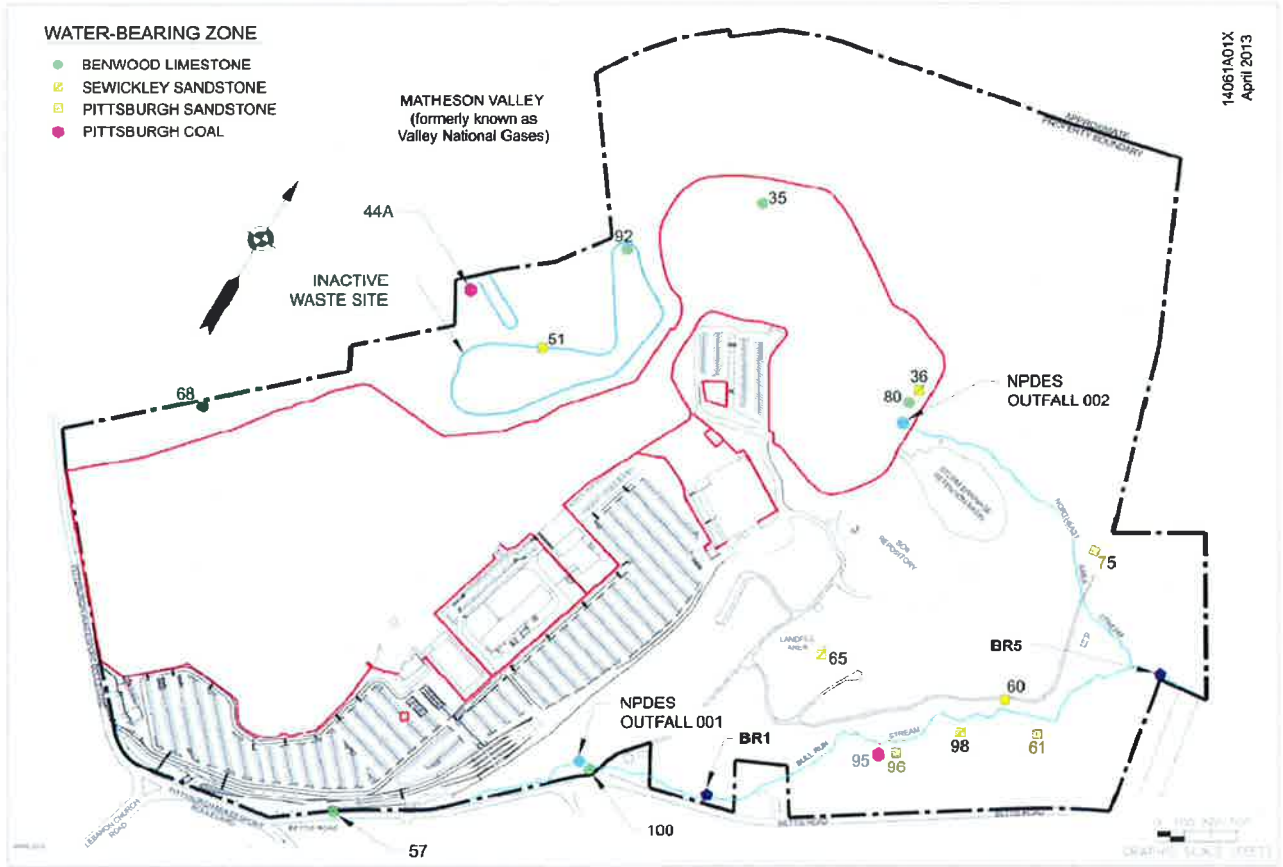
² Outfall 002 is planned to be eliminated in June 2013. No sampling will occur at this location after elimination of the outfall.

WATER-BEARING ZONE

- BENWOOD LIMESTONE
- SEWICKLEY SANDSTONE
- PITTSBURGH SANDSTONE
- PITTSBURGH COAL

MATHESON VALLEY
(formerly known as
Valley National Gases)

14061A01X
April 2013



ENVIRONMENTAL MONITORING SCHEDULE SAMPLING LOCATIONS