

LAKEHURST CLTF

Army Cleanup Program

Installation Action Plan

2023

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ACRONYMS

Acronym	Definition
AASF	Army Aviation Support Facility
AEDB-R	Army Environmental Database - Restoration
AFCEC	Air Force Civil Engineer Center
AOI	Area of Interest
ARNG	Army National Guard
CC	Compliance-Related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
DD	Decision Document
DERP	Defense Environmental Restoration Program
DoD	Department of Defense
ENV	Environmental
FS	Feasibility Study
FY	Fiscal Year
HQAES	Headquarters Army Environmental System
IR	Installation Restoration
IRA	Interim Remedial Action
JBMDL	Joint Base McGuire-Dix-Lakehurst
LTM	Long-Term Management
LUC	Land Use Control
MRSP	Munitions Response Site Prioritization Protocol
ng/L	nanograms/Liter
OSD	Office of the Secretary of Defense
PA	Preliminary Assessment
PFAS	Per- and Polyfluoroalkyl Substances
PFHxS	Perfluorohexanesulfonic acid
PFNA	Perfluorononanoic Acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid

Acronym	Definition
RAB	Restoration Advisory Board
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operations)
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
RIP	Remedy-In-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SI	Site Inspection
SL	Screening Level
TAPP	Technical Assistance for Public Participation
TRC	Technical Review Committee
WBS	Work Breakdown Structure

PHASE TRANSLATION TABLE

HQAES Phase ID	CERCLA Phase	RCRA Phase	RCRA UST Phase
.01	Preliminary Assessment (PA)	RCRA Facility Assessment (RFA)	Initial Site Characterization (ISC)
.02	Site Inspection (SI)	Confirmation Sampling (CS)	Investigation (INV)
.03	Remedial Investigation/ Feasibility Study (RI/FS)	RCRA Facility Investigation/Corrective Measures Study (RFI/CMS)	Corrective Action Plan (CAP)
.04	Remedial Design (RD)	Design (DES)	Design (DES)
.05	Interim Remedial Action (IRA)	Interim Measure (IM)	Interim Remedial Action (IRA)
.06	Remedial Action (Construction) (RA(C))	Corrective Measures Implementation (Construction) (CMI(C))	Implementation (Construction) (IMP(C))
.07	Remedial Action (Operation) (RA(O))	Corrective Measures Implementation (Operation) (CMI(O))	Implementation (Operation) (IMP(O))
.08	Long-Term Management (LTM)	Long-Term Management (LTM)	Long-Term Management (LTM)

SITE ALIAS LIST

HQAES ID	AEDB-R Reference	Site Alias
4193A.1002	NJ2020-01-P_LAKEHURST PFAS CONTAM	

LAKEHURST CLTF

INSTALLATION RESTORATION PROGRAM SITES

NJ2020-01-P_LAKEHURST PFAS CONTAM

HQAES ID: 4193A.1002

Alias: None

Regulatory Driver: CERCLA

RRSE: Not assigned

MRSP: Not assigned

RIP Date: 9/15/2033

RC Date: 9/15/2033

RC Reason: Not assigned

Program: ENV Restoration, Army

Subprogram: IR

<i>Phases</i>	<i>Start</i>	<i>End</i>
PA	6/18/2018	10/30/2019
SI	7/16/2019	2/28/2021
RI/FS	9/15/2026	9/15/2033
RD	--	--
IRA	--	--
RA(C)	--	--
RA(O)	--	--
LTM	--	--

Site Narrative

The Lakehurst Army Aviation Support Facility (AASF) comprises 50 acres and is located in the northeastern portion of the 42,000-acre Joint Base McGuire-Dix-Lakehurst (JBMDL) in Jackson Township, Ocean County, New Jersey. The facility includes two hangers and a small helipad. The Lakehurst AASF is a tenant activity at the JBMDL in accordance with a Host-Tenant Real Estate Agreement.

A Preliminary Assessment (PA) was completed at JBMDL by the Air Force Civil Engineer Center (AFCEC) to assess potential per- and poly-fluoroalkyl substances (PFAS) release areas and exposure pathways to receptors, but the AFCEC PA did not address the Lakehurst AASF. Therefore, Army National Guard (ARNG) completed a separate PA of the Lakehurst AASF. One area of interest (AOI) related to a PFAS release was identified at the site during the PA.

A Site Inspection (SI) was performed in February 2020 and field activities included the collection of soil and groundwater samples. The following summary compares the SI findings to the five PFAS compounds listed in the 6 July 2022 Office of the Secretary of Defense (OSD) memorandum: perfluorooctanesulfonic acid (PFOS), perfluorooctanoic acid (PFOA), perfluorononanoic acid (PFNA), and perfluorohexanesulfonic acid (PFHxS). Groundwater at AOI 1 exceeded the screening levels (SLs) for PFOA, with a maximum concentration of 26.6 nanograms per liter (ng/L) at AOI01-06, PFOS with a maximum concentration of 75.6 ng/L at AOI01-06 and PFHxS at 131 ng/L at AOI01-02 (duplicate). Soil did not exceed any SLs, although PFOS was detected in surface soil at AOI 1. The SI was completed in 2021, and based on the conceptual site model developed and revised in light of the SI findings, there is potential for exposure to receptors at or adjacent to the facility caused by Department of Defense (DoD) activities. A Remedial Investigation (RI) is recommended for AOI 1 at the Lakehurst AASF based on the groundwater exceedances. The RI was funded under the Compliance-related Cleanup (CC) program in late fiscal year (FY) 21.

In the Spring FY2021 Data Call, this site was still under the Compliance-related Cleanup (CC) program. It has moved to Defense Environmental Restoration Program (DERP) program funding during early FY22, and the new WBS 4193A.1002 was opened to track the site under DERP. The original CC contract award to perform the RI was descope in FY23. The RI/FS will be conducted under the DERP.

Cleanup/Exit Strategy AN RI/FS will be conducted. Future actions cannot be determined until the RI/FS is complete.

SITE CLOSEOUT SUMMARY

HQAES ID	Site Name	Site Closeout Date
4193A.1001	CCNJ2020-01-P_LAKEHURST PFAS CONT	6/16/2022

COMMUNITY INVOLVEMENT

Technical Review Committee (TRC) Establishment Date:	N/A
Community Involvement Plan (Date Published):	TBD
Restoration Advisory Board (RAB) Establishment Date:	N/A
RAB Adjournment Date:	N/A
RAB Adjournment Reason:	N/A
Additional Community Involvement:	Community Involvement Plan, Administrative Record and Information Repository will all be developed as the project progresses.
Administrative Record is located at:	TBD
Information Repository is located at:	TBD
Current Technical Assistance for Public Participation (TAPP):	N/A
TAPP Title:	N/A
Potential TAPP:	N/A

FIVE-YEAR / PERIODIC REVIEW SUMMARY

Review Summary Table

None

ROD/DDs associated with the last Five-Year/Periodic Review

None

Results, Actions & Plans

None

LAND USE CONTROLS (LUC) SUMMARY

None

CHERRY HILL/ARMORY, UTMB

Army Cleanup Program

Installation Action Plan

2023

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ACRONYMS

Acronym	Definition
AEDB-R	Army Environmental Database - Restoration
AOC	Area of Concern
CC	Compliance-Related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
COC	Contaminant of Concern
DD	Decision Document
ENV	Environmental
EPH	Extractable Petroleum Hydrocarbon
FMS	Field Maintenance Shop
FS	Feasibility Study
HQAES	Headquarters Army Environmental System
IR	Installation Restoration
IRA	Interim Remedial Action
LSRP	Licensed Site Remediation Professional
LTM	Long-Term Management
LUC	Land Use Control
MR	Munitions Response
MRSPP	Munitions Response Site Prioritization Protocol
NJARNG	New Jersey Army National Guard
NJDEP	New Jersey Department of Environmental Protection
OMS	Organizational Maintenance Shop
PA	Preliminary Assessment
PAH	Polycyclic aromatic hydrocarbons
PAOC	Potential Area of Concern
ppm	parts per million
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operations)
RAWP	Remedial Action Work Plan
RC	Response Complete

RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
RIP	Remedy-In-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SI	Site Inspection
UST	Underground Storage Tank
VOC	Volatile Organic Compound
WBS	Work Breakdown Structure

PHASE TRANSLATION TABLE

HQAES Phase ID	CERCLA Phase	RCRA Phase	RCRA UST Phase
.01	Preliminary Assessment (PA)	RCRA Facility Assessment (RFA)	Initial Site Characterization (ISC)
.02	Site Inspection (SI)	Confirmation Sampling (CS)	Investigation (INV)
.03	Remedial Investigation/ Feasibility Study (RI/FS)	RCRA Facility Investigation/Corrective Measures Study (RFI/CMS)	Corrective Action Plan (CAP)
.04	Remedial Design (RD)	Design (DES)	Design (DES)
.05	Interim Remedial Action (IRA)	Interim Measure (IM)	Interim Remedial Action (IRA)
.06	Remedial Action (Construction) (RA(C))	Corrective Measures Implementation (Construction) (CMI(C))	Implementation (Construction) (IMP(C))
.07	Remedial Action (Operation) (RA(O))	Corrective Measures Implementation (Operation) (CMI(O))	Implementation (Operation) (IMP(O))
.08	Long-Term Management (LTM)	Long-Term Management (LTM)	Long-Term Management (LTM)

SITE ALIAS LIST

HQAES ID	AEDB-R Reference	Site Alias
4183A.1002	CCNJA45071_CHERRY HILL ARMORY 2000 GAL.	

CHERRY HILL/ARMORY, UTMB

COMPLIANCE CLEANUP SITES

CCNJA45071_CHERRY HILL ARMORY USTs

HQAES ID: 4183A.1002

Alias: None

Regulatory Driver: State Law/Statute

RRSE: Not assigned

MRSPP: Not assigned

RIP Date: 6/14/2031

RC Date: 6/14/2031

RC Reason: Not assigned

Program: Compliance Cleanup

Subprogram: CC

<i>Phases</i>	<i>Start</i>	<i>End</i>
PA	1/31/1993	2/15/2016
SI	--	--
R/FS	2/16/2016	3/15/2024
RD	10/1/2022	9/30/2024
IRA	12/15/1998	2/15/2012
RA(C)	6/15/2030	6/14/2031
RA(O)	--	--
LTM	--	--

Site Narrative

The site is located in Cherry Hill, Camden County, New Jersey. It consists of one armory building and one Organizational Maintenance Shop (OMS) building. The armory was built in 1958 and the OMS building was built in the 1970's for the maintenance of wheeled vehicles. A site-wide Preliminary Assessment (PA), finalized in 2016, identified 26 potential areas of concern. Based on the recommendations presented in the PA Report, groundwater (May 2016), soil (May 2017) and geophysical investigations (May 2017) were performed. Further investigation of only four of twenty-six Areas of Concern (AOCs) was performed. Based on the results of the May 2017 soil investigation, further soil investigations at AOC 2 [former 2000-gallon diesel fuel underground storage tank (UST)], AOC 3 (former 3000-gallon diesel fuel UST), AOC 11 (Mobile refueler parking pad), and AOC 25 (former 275-gallon waste oil tank) were performed in March 2020. The analytical results for the March 2020 investigations indicated that no further investigation was required at AOCs 11 and 25. Additional delineation of petroleum impacts for AOCs 2 and 3 was completed in March 2022. The primary Contaminants of Concern (COCs) are extractable petroleum hydrocarbons (EPH) and 2-methylnaphthalene which have been detected at 5780 ppm and 44.7 parts per million (ppm) respectively. The New Jersey cleanup criteria for EPH is 5100ppm and 2-methylnaphthalene is 8 ppm.

The analytical results from the March 2020 groundwater sampling event indicated Volatile Organic Compounds (VOC) and Polycyclic aromatic hydrocarbons (PAH) impacts at select monitoring wells. A background literature study was completed and supports the argument that metals present in groundwater are background and/or anthropogenic and not a result of the New Jersey Army National Guard (NJARNG) operations.

Eight quarters of groundwater monitoring are funded and underway through FY23. A Remedial Action Work Plan (RAWP) was completed in April 2023 for AOC 2 and AOC 3, which presents the design of the remedy of soil excavation of 735 cubic yards and off-site disposal.

Cleanup/Exit Strategy:

A soil excavation and disposal will be completed at AOC 2 and 3. A Remedial Action Completion Report and Response Action Outcome document will be completed by a Licensed Site Remediation Professional (LSRP) for submission to New Jersey Department of Environmental Protection (NJDEP).

SITE CLOSEOUT SUMMARY

HQAES ID	Site Name	Site Closeout Date
4183A.1001	CCNJA45051_Cherry Hill Armory UST's	1/31/2009
4183A.1003	CCNJA45072_Cherry Hill Armory 2000 gal.	1/31/2009

COMMUNITY INVOLVEMENT

Technical Review Committee (TRC) Establishment Date:	N/A
Community Involvement Plan (Date Published):	N/A
Restoration Advisory Board (RAB) Establishment Date:	N/A
RAB Adjournment Date:	N/A
RAB Adjournment Reason:	N/A
Additional Community Involvement:	N/A
Administrative Record is located at:	N/A
Information Repository is located at:	N/A
Current Technical Assistance for Public Participation (TAPP):	N/A
TAPP Title:	N/A
Potential TAPP:	N/A

FIVE-YEAR / PERIODIC REVIEW SUMMARY

Review Summary Table

None

ROD/DDs associated with the last Five-Year/Periodic Review

None

Results, Actions & Plans

None

LAND USE CONTROLS (LUC) SUMMARY

None

HAMMONTON ARMORY

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ACRONYMS

Acronym	Definition
AEDB-R	Army Environmental Database - Restoration
AOC	Area of Concern
CC	Compliance-Related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
COC	Contaminant of Concern
DD	Decision Document
ENV	Environmental
EPH	Extractable Petroleum Hydrocarbon
FMS	Field Maintenance Shop
FS	Feasibility Study
HQAES	Headquarters Army Environmental System
IR	Installation Restoration
IRA	Interim Remedial Action
LSRP	Licensed Site Remediation Professional
LTM	Long-Term Management
LUC	Land Use Control
MR	Munitions Response
MRSPP	Munitions Response Site Prioritization Protocol
NJARNG	New Jersey Army National Guard
NJDEP	New Jersey Department of Environmental Protection
OMS	Organizational Maintenance Shop
PA	Preliminary Assessment
PAH	Polycyclic aromatic hydrocarbons
PAOC	Potential Area of Concern
ppm	parts per million
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operations)
RAWP	Remedial Action Work Plan
RC	Response Complete

RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
RIP	Remedy-In-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SI	Site Inspection
SVOC	Semi-volatile Organic Compound
UST	Underground Storage Tank
VOC	Volatile Organic Compound
WBS	Work Breakdown Structure

PHASE TRANSLATION TABLE

HQAES Phase ID	CERCLA Phase	RCRA Phase	RCRA UST Phase
.01	Preliminary Assessment (PA)	RCRA Facility Assessment (RFA)	Initial Site Characterization (ISC)
.02	Site Inspection (SI)	Confirmation Sampling (CS)	Investigation (INV)
.03	Remedial Investigation/ Feasibility Study (RI/FS)	RCRA Facility Investigation/Corrective Measures Study (RFI/CMS)	Corrective Action Plan (CAP)
.04	Remedial Design (RD)	Design (DES)	Design (DES)
.05	Interim Remedial Action (IRA)	Interim Measure (IM)	Interim Remedial Action (IRA)
.06	Remedial Action (Construction) (RA(C))	Corrective Measures Implementation (Construction) (CMI(C))	Implementation (Construction) (IMP(C))
.07	Remedial Action (Operation) (RA(O))	Corrective Measures Implementation (Operation) (CMI(O))	Implementation (Operation) (IMP(O))
.08	Long-Term Management (LTM)	Long-Term Management (LTM)	Long-Term Management (LTM)

SITE ALIAS LIST

HQAES ID	AEDB-R Reference	Site Alias
4191A.1001	CCNJB00051_Hammonton Armory UST's	

HAMMONTON ARMORY

COMPLIANCE CLEANUP SITES

CCNJB00051_Hammonton Armory UST's

HQAES ID: 4191A.1001

Alias: None

Regulatory Driver: State Law/Statute

RRSE: Not assigned

MRSPP: Not assigned

RIP Date: 12/31/2029

RC Date: 12/31/2029

RC Reason: Not assigned

Program: Compliance Cleanup

Subprogram: CC

<i>Phases</i>	<i>Start</i>	<i>End</i>
PA	1/31/1997	2/15/2016
SI	--	--
RI/FS	1/31/2005	3/15/2024
RD	1/1/2022	9/30/2024
IRA	--	--
RA(C)	1/1/2029	12/31/2029
RA(O)	--	--
LTM	--	--

Site Narrative

The Armory consists of one armory building and one motor vehicle storage building in Hammonton, New Jersey. Both buildings were constructed in 1961. The New Jersey Army National Guard (NJARNG) uses the motor vehicle storage building for cold storage of wheeled vehicles and the armory is used for administrative purposes. The site wide preliminary assessment (PA) finalized in February 2016 identified twenty-six potential areas of environmental concern (PAOC). A Preliminary Assessment (PA) report was prepared and submitted to New Jersey Department of Environmental Protection (NJDEP). The PA report recommended further remedial investigation (RI) activities at four PAOCs, including the former aboveground storage tank (AST) (AOC 20), a former septic system (AOC 6B), a former diesel fuel surface spill (AOC 10), and site wide groundwater (AOC 11). Based on the PA report recommendations, groundwater (May 2016) and soil (September 2016) investigations were performed.

Based on the results of the May 2016 groundwater investigation, further RI was recommended, including an historic fill investigation, additional soil sampling to identify a potential source of groundwater contamination, additional groundwater monitoring well installation and sampling, a background literature study to determine background and/or anthropogenic sources of metals in groundwater. Based upon results of September 2016 soil investigations at Areas of Concern (AOCs) 6B, 10, and 20, no further action was required at AOCs 6B and 20.

A Remedial Action Work Plan (RAWP), dated Sept 2017, soil removal (193 tons) and Remedial Action Report (RAR), dated Jan 2021 were prepared and submitted to the NJDEP for the remediation (via excavation) of elevated extractable petroleum hydrocarbon impacted soil at AOC 10. A Response Action Outcome (RAO) document will be prepared by a Licensed Site Remediation Professional (LSRP) for closure of AOC 10 (funded).

Phase II soil investigation (May 2019) results indicated volatile organic compounds (VOC) (ethylbenzene, xylenes) and semi-volatile organic compounds (SVOC) (naphthalene, 2-methylnaphthalene) impacts above NJDEP standards at AOC 1B (former gasoline Underground Storage Tank (UST)). NJDEP cleanup criteria include ethylbenzene (13 parts per million (ppm)), xylenes (19ppm), naphthalene (6ppm), and 2-methynaphthalene (8ppm). Results up to

HAMMONTON ARMORY Installation Action Plan

365ppm, 22ppm and 16.9ppm respectively have been detected. Results from the groundwater well sampling identified ethyl benzene, xylenes, naphthalene and 2 methyl naphthalene above the NJDEP groundwater standards. The Phase II soil investigation results also indicated polycyclic aromatic hydrocarbon (PAH) impacts in soil adjacent to monitoring well MW-2. MW-2 is located within the former excavation footprint of AOC 1A (former fuel oil UST). A background literature study was completed and supports the argument that metals present in groundwater are background and/or anthropogenic and not a result of NJARNG operations.

Eight quarters of groundwater monitoring are funded and underway through FY23. A RAWP for AOCs 1A and 1B is underway. The draft final RAWP was issued in June 2023, which presents a total excavation volume of 275 cubic yards at AOC 1A and 375 cubic yards at AOC 1B.

Cleanup/Exit Strategy Soil excavation and disposal will be completed at AOC 1A and AOC 1B. A Remedial Action Report and Response Action Outcome Report will be completed by a LSRP for submission to NJDEP.

SITE CLOSEOUT SUMMARY

HQAES ID	Site Name	Site Closeout Date
4191A.1002	CCNJB00121 HAMMONTON ARMORY SPILL	3/15/2014

COMMUNITY INVOLVEMENT

Technical Review Committee (TRC) Establishment Date:	N/A
Community Involvement Plan (Date Published):	
Restoration Advisory Board (RAB) Establishment Date:	N/A
RAB Adjournment Date:	N/A
RAB Adjournment Reason:	N/A
Additional Community Involvement:	N/A
Administrative Record is located at:	N/A
Information Repository is located at:	
Current Technical Assistance for Public Participation (TAPP):	N/A
TAPP Title:	N/A
Potential TAPP:	N/A

FIVE-YEAR / PERIODIC REVIEW SUMMARY

Review Summary Table

None

ROD/DDs associated with the last Five-Year/Periodic Review

None

Results, Actions & Plans

None

LAND USE CONTROLS (LUC) SUMMARY

None

LAWRENCEVILLE/ ARMORY, USPFO, HQRTS, FMS5

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Land Use Controls (LUC) Summary	11

ACRONYMS

Acronym	Definition
AEDB-R	Army Environmental Database - Restoration
AOC	Area of Concern
CC	Compliance-Related Cleanup
CEA	Classification Exception Area
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
COC	Contaminant of Concern
DD	Decision Document
ENV	Environmental
EPH	Extractable Petroleum Hydrocarbon
FMS	Field Maintenance Shop
FS	Feasibility Study
HQAES	Headquarters Army Environmental System
IR	Installation Restoration
IRA	Interim Remedial Action
LSRP	Licensed Site Remediation Professional
LTM	Long-Term Management
LUC	Land Use Control
MNA	Monitored Natural Attenuation
MR	Munitions Response
MRSPP	Munitions Response Site Prioritization Protocol
MVSB	Motor Vehicle Storage Building
NJARNG	New Jersey Army National Guard
NJDEP	New Jersey Department of Environmental Protection
PA	Preliminary Assessment
PAH	Polycyclic aromatic hydrocarbons
PAOC	Potential Area of Concern
PCE	Tetrachloroethene
ppm	parts per million
RA(C)	Remedial Action (Construction)

RA(O)	Remedial Action (Operations)
RAP	Remedial Action Permit
RAR	Remedial Action Report
RAWP	Remedial Action Work Plan
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
RIP	Remedy-In-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SI	Site Inspection
SVOC	Semi-volatile Organic Compound
UST	Underground Storage Tank
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WBS	Work Breakdown Structure

PHASE TRANSLATION TABLE

HQAES Phase ID	CERCLA Phase	RCRA Phase	RCRA UST Phase
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.04	Remedial Design (RD)	Design (DES)	Design (DES)
.05	Interim Remedial Action (IRA)	Interim Measure (IM)	Interim Remedial Action (IRA)
.06	Remedial Action (Construction) (RA(C))	Corrective Measures Implementation (Construction) (CMI(C))	Implementation (Construction) (IMP(C))
.07	Remedial Action (Operation) (RA(O))	Corrective Measures Implementation (Operation) (CMI(O))	Implementation (Operation) (IMP(O))
.08	Long-Term Management (LTM)	Long-Term Management (LTM)	Long-Term Management (LTM)

SITE ALIAS LIST

HQAES ID	AEDB-R Reference	Site Alias
4194A.1001	CCNJB15051_Lawrenceville OMS UST's	NJ11500001

LAWRENCEVILLE/ ARMORY, USPFO, HQRTS, FMS5

COMPLIANCE CLEANUP SITES

CCNJB15051_Lawrenceville OMS Facility Wide Investigation

HQAES ID: 4194A.1001

Alias: NJ11500001

Regulatory Driver: State Law/Statute

RRSE: Not assigned

MRSPP: Not assigned

RIP Date: 10/1/2024

RC Date: 10/15/2024

RC Reason: Not assigned

Program: Compliance Cleanup

Subprogram: CC

<i>Phases</i>	<i>Start</i>	<i>End</i>
PA	1/31/1998	2/15/2016
SI	1/1/2017	7/10/2020
RI/FS	3/31/2005	10/1/2024
RD	--	--
IRA	--	--
RA(C)	--	
RA(O)	--	--
LTM	--	--

Site Narrative

The Lawrenceville Armory consists of one armory building, two Field Maintenance Shop (FMS) buildings, and one motor vehicle storage building (MVS) building in Lawrenceville, New Jersey. The armory was built in 1927 and the FMS and MVS buildings were built in the 1940's. The FMS is used for the maintenance of New Jersey Army National Guard (NJARNG) vehicles while the MVS is used as cold storage for the NJARNG militia museum in the armory.

Trichloroethylene, polycyclic aromatic hydrocarbons, metals, and petroleum hydrocarbons have been detected in soil. A site-wide PA was finalized in 2016 with a total of 102 Areas of Concern (AOCs) identified. 59 of the AOCs were addressed in the Site Investigation and the remainder required no further investigation/action based on the evaluation of lines of evidence presented in the PA Report. The Site Investigation was conducted in 2017 at the 59 AOCs identified in the PAR. The July 2020 SI report identified 15 AOCs require additional remedial investigation or actions. All AOCs identified in the preliminary assessment as suspected of contamination have been investigated in compliance with NJDEP Site Investigation Requirements. Since then, one additional AOC has been identified as the hydraulic lifts in the FMS Building 1. Additional Soil sampling at the remaining 16 AOCs is underway to delineate contamination and identify remedial actions.

Cleanup/Exit Strategy: The findings of the Remedial Investigation (RI) will be presented in a RI report. Currently there isn't sufficient information to plan details for comprehensive future actions.

CCNJB15071_Lawrenceville Groundwater

HQAES ID: 4194A.1002

Alias: NJ11500001

Regulatory Driver: State Law/Statute

RRSE: Not assigned

MRSPP: Not assigned

RIP Date: 10/16/2022

RC Date: 10/15/2052

RC Reason: Not assigned

Program: Compliance Cleanup

Subprogram: CC

<i>Phases</i>	<i>Start</i>	<i>End</i>
PA	1/1/1998	1/31/1998
SI	1/1/1998	1/31/1998
RI/FS	2/1/1998	3/9/2010
RD	3/31/2020	3/31/2021
IRA	--	--
RA(C)	3/31/2021	10/15/2022
RA(O)	10/16/2022	10/15/2053
LTM		

Site Narrative

The Lawrenceville Armory consists of one armory building, two FMS buildings, and one MVSB building in Lawrenceville, New Jersey. The armory was built in 1927 and the FMS and MVSB buildings were built in the 1940's. The FMS is used for the maintenance of NJARNG vehicles while the MVSB is used as cold storage for the NJARNG militia museum in the armory.

In 1998 a 2,000-gallon heating oil, 6,000-gallon diesel, 500-gallon waste oil, 2,000-gallon gasoline, and 5,000-gallon heating oil Underground Storage Tank (UST) were removed from the site. A 1998 report indicated, post-excavation soil samples exceeded metals, petroleum hydrocarbon and polychlorinated biphenyl standards. After multiple rounds of investigation, a June 2009 report, identified no soil contamination but Tetrachloroethylene (PCE) was still present above the groundwater standard. The groundwater samples continue to show PCE (0.26 to 3.0 ppb: standard is 1 ppb). On March 9, 2010, NJDEP issued a no further action for soil and required investigation to identify the PCE source. Further investigation determined the source area of the PCE in groundwater to be a floor drain in the FMS building.

A classification exception area (CEA) was established for the groundwater plume area. Quarterly groundwater sampling has been conducted and contamination appears to be delineated. The eighth round of samples required to prepare a remedial action report (RAR) for monitored natural attenuation (MNA), was completed in March 2022. A draft RAR was prepared in January 2023.

Cleanup/Exit Strategy: The RAR will be finalized. An application for a remedial action permit (RAP) for groundwater is being prepared. It is assumed Groundwater monitoring will continue indefinitely along with the submittal of Biennial Certification Reports.

SITE CLOSEOUT SUMMARY

None

COMMUNITY INVOLVEMENT

Technical Review Committee (TRC) Establishment Date:	N/A
Community Involvement Plan (Date Published):	N/A
Restoration Advisory Board (RAB) Establishment Date:	N/A
RAB Adjournment Date:	N/A
RAB Adjournment Reason:	N/A
Additional Community Involvement:	N/A
Administrative Record is located at:	N/A
Information Repository is located at:	N/A
Current Technical Assistance for Public Participation (TAPP):	N/A
TAPP Title:	N/A
Potential TAPP:	N/A

FIVE-YEAR / PERIODIC REVIEW SUMMARY

Review Summary Table

None

ROD/DDs associated with the last Five-Year/Periodic Review

None

Results, Actions & Plans

None

LAND USE CONTROLS (LUC) SUMMARY

None

NEWTON ARMORY (NJ)

Army Cleanup Program

Installation Action Plan

2023

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ACRONYMS

Acronym	Definition
AEDB-R	Army Environmental Database - Restoration
AOC	Area of Concern
CC	Compliance-Related Cleanup
CEA	Classification Exception Area
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
COC	Contaminant of Concern
DD	Decision Document
ENV	Environmental
EPH	Extractable Petroleum Hydrocarbon
FMS	Field Maintenance Shop
FS	Feasibility Study
FY	Fiscal Year
HQAES	Headquarters Army Environmental System
IR	Installation Restoration
IRA	Interim Remedial Action
LSRP	Licensed Site Remediation Professional
LTM	Long-Term Management
LUC	Land Use Control
MGW	Migration to Groundwater
MR	Munitions Response
MRSP	Munitions Response Site Prioritization Protocol
NJARNG	New Jersey Army National Guard
NJDEP	New Jersey Department of Environmental Protection
PA	Preliminary Assessment
PAH	Polycyclic aromatic hydrocarbons
PAOC	Potential Area of Concern
ppm	parts per million
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operations)

RAO	Remedial Action Outcome
RAR	Remedial Action Report
RAWP	Remedial Action Work Plan
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
RIP	Remedy-In-Place
RIR	Remedial Investigation Report
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SAFR	Small Arms Firing Range
SI	Site Investigation
SRS	Soil Remediation Standard
SVOC	Semi-volatile Organic Compound
UST	Underground Storage Tank
VOC	Volatile Organic Compound
WBS	Work Breakdown Structure
WRA	Well Restriction Area

PHASE TRANSLATION TABLE

HQAES Phase ID	CERCLA Phase	RCRA Phase	RCRA UST Phase
.01	Preliminary Assessment (PA)	RCRA Facility Assessment (RFA)	Initial Site Characterization (ISC)
.02	Site Inspection (SI)	Confirmation Sampling (CS)	Investigation (INV)
.03	Remedial Investigation/ Feasibility Study (RI/FS)	RCRA Facility Investigation/Corrective Measures Study (RFI/CMS)	Corrective Action Plan (CAP)
.04	Remedial Design (RD)	Design (DES)	Design (DES)
.05	Interim Remedial Action (IRA)	Interim Measure (IM)	Interim Remedial Action (IRA)
.06	Remedial Action (Construction) (RA(C))	Corrective Measures Implementation (Construction) (CMI(C))	Implementation (Construction) (IMP(C))
.07	Remedial Action (Operation) (RA(O))	Corrective Measures Implementation (Operation) (CMI(O))	Implementation (Operation) (IMP(O))
.08	Long-Term Management (LTM)	Long-Term Management (LTM)	Long-Term Management (LTM)

SITE ALIAS LIST

HQAES ID	AEDB-R Reference	Site Alias
4200A.1001	CCJNB55141 NEWTON ARMORY GASOLINE UST	
	NEWTON ARMORY GROUNDWATER LTM	
	NEWTON ARMORY SOIL REMEDIATION AOC 11A/18	
	NEWTON ARMORY RANGE SOIL REMEDIATION	

NEWTON ARMORY (NJ)

COMPLIANCE CLEANUP SITES

CCNJB55141 NEWTON ARMORY GASOLINE UST

HQAES ID: 4200A.1001

Alias: None

Regulatory Driver: State Law/Statute

RRSE: Not assigned

MRSPP: Not assigned

RIP Date: 10/1/2032

RC Date: 10/1/2032

RC Reason: Not assigned

Program: Compliance Cleanup

Subprogram: CC

<i>Phases</i>	<i>Start</i>	<i>End</i>
PA	8/15/2009	2/15/2016
SI	2/16/2016	5/1/2019
RI/FS	9/15/2009	4/15/2023
RD	10/1/2022	1/1/2024
IRA	--	--
RA(C)	10/1/2031	10/1/2032
RA(O)	--	--
LTM	--	--

Site Narrative

The Newton Armory (the Site) consisted of one armory building, one Field Maintenance Shop (FMS) building, a small hazmat building, and an aluminum garage. The armory, FMS, and hazmat building were built in 1956 while the aluminum garage was built in the mid-2000s. An addition was built onto the armory in 1977. An Outdoor Small Arms Firing Range (SAFR) was also present. The armory closed in 2008 and all buildings except for a metal storage shed were demolished by the close of calendar year 2018.

A Preliminary Assessment (PA) was completed at the Newton Armory in 2016. During the PA 28 Areas of Concern (AOCs) were identified of which 9 were identified as no further action (NFA) and 19 were determined to need additional investigations. A Site Investigation (SI) report was completed in May 2019 in which 17 AOCs were investigated and 6 were determined for NFA while 11 were identified as requiring additional Remedial Investigations (RI). During the RI, AOC-1c [2,000-gallon heating oil underground storage tank (UST) [Tank E4]] and AOC-1d (2,000-gallon gasoline UST and dispenser [Tank E1]) were identified as AOCs. Petroleum-related soil impacts in unsaturated soils exceeding the soil remediation standards for the migration to groundwater pathway were identified.

The remedial investigation report (RIR) was prepared in fiscal year (FY) 23 for specific AOCs. At AOC 1D. The RIR identified soil impacts with petroleum hydrocarbons. Benzene was identified as a contaminant of concern (COC) in groundwater. Single point sample results for benzene, ethylbenzene, and xylenes were further evaluated using spatially weighted averaging, the results of which indicate NFA for benzene and ethylbenzene. Remediation is required for xylenes in unsaturated soils. The proposed remedial action for xylenes in soil is excavation and removal down to the water table.

At AOC 16A, Soil samples collected from this area of the Site contained certain polycyclic aromatic hydrocarbons (PAHs) (benzo[a]anthracene, benzo[a]pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene) and metals (beryllium, cadmium, and lead) at concentrations above the Soil Remediation Standards (SRS) for the Ingestion-Dermal and Inhalation Exposure

NEWTON ARMORY (NJ) Installation Action Plan

Pathways – Non-Residential (R-SRS) and/or Soil Remediation Standards for the Migration to Groundwater Exposure Pathway (MGW-SRS). Remediation is required to address the benzo[a]anthracene, benzo[a]pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene impacts above the R-SRS in the Historic Fill. The proposed remedial action for Historic Fill above the R-SRS is an institutional control (deed notice). A Classification Exception Area/Well Restriction Area (CEA/WRA) was established for the entire Site for Historic Fill parameters in 2020. Therefore, in accordance with the NJDEP Historic Fill Material Technical Guidance, Version 2.0, dated April 29, 2013, no further remediation is required for the benzo[a]anthracene, beryllium, cadmium, and lead exceedances of the MGW-SRS in the Historic Fill.

At AOC 18, remediation is required to address the antimony, copper, and lead impacts above the NR-SRS, R-SRS, and MGW-SRS. The proposed RA for AOC-18 is soil excavation and removal.

A remedial action work plan (RAWP) for soil at AOC 1D, 16A and 18 was issued in May 2023.

Cleanup/Exit Strategy: A site wide RI report and Remedial Action Work Plan are underway. A soil removal will be completed at this site. The approximate area is 5,000-square feet and depth to groundwater is approximately 15 feet. A Remedial Action Report (RAR) and a Response Action Outcome (RAO) will be prepared by a Licensed Site Remediation Professional (LSRP) and submitted to NJDEP.

SITE CLOSEOUT SUMMARY

HQAES ID	Site Name	Site Closeout Date
4200A.1002	CCNJB55142 NEWTON ARMORY SEPTIC FIELD	5/30/2019

COMMUNITY INVOLVEMENT

Technical Review Committee (TRC) Establishment Date:	N/A
Community Involvement Plan (Date Published):	N/A
Restoration Advisory Board (RAB) Establishment Date:	N/A
RAB Adjournment Date:	N/A
RAB Adjournment Reason:	N/A
Additional Community Involvement:	N/A
Administrative Record is located at:	N/A
Information Repository is located at:	N/A
Current Technical Assistance for Public Participation (TAPP):	N/A
TAPP Title:	N/A
Potential TAPP:	N/A

FIVE-YEAR / PERIODIC REVIEW SUMMARY

Review Summary Table

None

ROD/DDs associated with the last Five-Year/Periodic Review

None

Results, Actions & Plans

None

LAND USE CONTROLS (LUC) SUMMARY

None

PITMAN ARMORY

Army Cleanup Program

Installation Action Plan

2023

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ACRONYMS

Acronym	Definition
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CEA	Classification Exception Area
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
COC	Contaminant of Concern
DD	Decision Document
ENV	Environmental
EPH	Extractable Petroleum Hydrocarbon
FS	Feasibility Study
HQAES	Headquarters Army Environmental System
IR	Installation Restoration
IRA	Interim Remedial Action
LSRP	Licensed Site Remediation Professional
LTM	Long-Term Management
LUC	Land Use Control
MR	Munitions Response
MRSPP	Munitions Response Site Prioritization Protocol
MVSB	Motor Vehicle Storage Building
NJARNG	New Jersey Army National Guard
NJDEP	New Jersey Department of Environmental Protection
PA	Preliminary Assessment
PCE	Tetrachloroethene
ppb	parts per billion
ppm	parts per million
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operations)
RAO	Remedial Action Outcome
RAP	Remedial Action Permit

RAR	Remedial Action Report
RAWP	Remedial Action Work Plan
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
RIP	Remedy-In-Place
RIR	Remedial Investigation Report
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SI	Site Inspection
SVOC	Semi-volatile Organic Compound
UST	Underground Storage Tank
VOC	Volatile Organic Compound
WBS	Work Breakdown Structure

PHASE TRANSLATION TABLE

HQAES Phase ID	CERCLA Phase	RCRA Phase	RCRA UST Phase
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.02	Site Inspection (SI)	Confirmation Sampling (CS)	Investigation (INV)
.03	Remedial Investigation/ Feasibility Study (RI/FS)	RCRA Facility Investigation/Corrective Measures Study (RFI/CMS)	Corrective Action Plan (CAP)
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.05	Interim Remedial Action (IRA)	Interim Measure (IM)	Interim Remedial Action (IRA)
.06	Remedial Action (Construction) (RA(C))	Corrective Measures Implementation (Construction) (CMI(C))	Implementation (Construction) (IMP(C))
.07	Remedial Action (Operation) (RA(O))	Corrective Measures Implementation (Operation) (CMI(O))	Implementation (Operation) (IMP(O))
.08	Long-Term Management (LTM)	Long-Term Management (LTM)	Long-Term Management (LTM)

SITE ALIAS LIST

HQAES ID	AEDB-R Reference	Site Alias
4202A.1001	CCNJ673620_Pitman Armory UST	
	Pitman Armory PCB Removal	
	Pitman Armory AOC 11 and 23 Soil Remediation	

PITMAN ARMORY

COMPLIANCE CLEANUP SITES

CCNJ673620_Pitman Armory Groundwater

HQAES ID: 4202A.1001

Alias: None

Regulatory Driver: State Law/Statute

RRSE: Not assigned

MRSPP: Not assigned

RIP Date: 2/15/2016

RC Date: 10/15/2028

RC Reason: Not assigned

Program: Compliance Cleanup

Subprogram: CC

<i>Phases</i>	<i>Start</i>	<i>End</i>
PA	1/31/1991	6/30/1991
SI	--	--
RI/FS	7/31/1991	9/30/1996
RD	10/15/2013	12/15/2013
IRA	1/31/1997	3/31/2010
RA(C)	2/15/2014	2/15/2016
RA(O)	2/15/2016	10/15/2028
LTM	--	--

Site Narrative

The Pitman Armory is located on Delsea Drive in Pitman, New Jersey. The armory and motor vehicle storage building (MVSB) were constructed in the 1960's and both have been closed since 1995. The Site was used to provide New Jersey Army National Guard support and training services from 1961 to 1994. The MVSB was erected in the late 1940s; the Armory building was constructed in the early 1960s. The property ownership was transferred to the Borough of Pitman on June 19, 2007.

An April 1992 report detailed that the Underground Storage Tank (UST) had numerous holes, and contaminated soil and groundwater were observed in the excavation. Sixty tons of soil were removed from the site.

New Jersey Department of Environmental Protection (NJDEP) approved remedial action work plan (RAWP) dated 1996, recommended a pump & treat system to enhance natural attenuation. NJDEP agreed to 10 parts per billion (ppb) benzene cutoff point. The system ran from 1997 until February 1999. NJDEP approved a Classification Exception Area (CEA) in 1998. In a February 17, 1999 letter, NJDEP approved shutting down the system unless groundwater sampling indicated Volatile Organic Compounds (VOC) constituents exceeded 10 ppb.

The system treated ~154,052 gallons of groundwater. Quarterly groundwater sampling was implemented. However, since December 2002, toluene, ethylbenzene, and xylene routinely exceeded the groundwater standards. Because a decreasing trend was evidenced, it was concluded a residual source of contamination still existed. In August 2004, 29 soil samples identified ethylbenzene and xylenes above the cleanup standards. Groundwater sampling reported on July 31, 2007 indicated xylenes, and ethylbenzene above groundwater standards.

A December 2008 RAWP attempted to address residual soil and groundwater contamination using a single in-situ chemical oxidation treatment. In an Apr 20, 2009 letter, NJDEP requested injection points be redistributed to better address the soil contamination. A revised Dec 21, 2009 RAWP was submitted and approved by the NJDEP (Feb. 3, 2010). A May 2011 report details the injection activities (March 2010) and follow up groundwater sampling events. Tetrachloroethene (PCE) was detected above groundwater standards in several wells. A January 2013 report presented additional soil and groundwater sampling

results and a membrane interface probe investigation. The groundwater samples revealed VOC constituents below the groundwater standards, except for PCE, ethylbenzene, and total xylenes. The source area delineation was then considered complete.

The 1998 CEA was resubmitted in 2013. Groundwater remedial activities completed in Fiscal Year 14 -15 included an NJDEP approved Wetland Permit, which allowed for the removal of soils, and the treatment of subsurface soils and groundwater using PersulfOx.

In 2016, a Response Action Outcome letter was issued for soil for Area of Concern (AOC) 1. A CEA and Remedial Action Permit (RAP) for groundwater were approved by NJDEP.

The RAP required re-submittal to remove some parameters from the monitoring plan; the RAP for PCE was extended to March 2022, based on the most recent groundwater sampling results. Groundwater monitoring and biennial report is required for compliance with the RAP. Groundwater sampling results since 2017 indicated PCE concentrations are stable and may not be decreasing. The groundwater samples revealed VOC constituents below the groundwater standards, except for PCE (1.2 to 2.9 ppb: standard is 1 ppb). An extension of the RAP is necessary and the request was submitted to NJDEP on March 15, 2022.

Cleanup Strategy: Continue groundwater monitoring and reporting for CEA and Groundwater RA Permit compliance. This includes annual monitoring of five monitoring wells for PCE and a biennial report every 2 years. Remedial Action Permit Modification Application for groundwater dated March 15, 2022 models groundwater to be in compliance by 2027 for a total of four annual sampling events (2024 through 2027) and 3 Biennial Reports (2024, 2026, and 2028).

SITE CLOSEOUT SUMMARY

None

COMMUNITY INVOLVEMENT

Technical Review Committee (TRC) Establishment Date:	N/A
Community Involvement Plan (Date Published):	N/A
Restoration Advisory Board (RAB) Establishment Date:	N/A
RAB Adjournment Date:	N/A
RAB Adjournment Reason:	N/A
Additional Community Involvement:	N/A
Administrative Record is located at:	N/A
Information Repository is located at:	N/A
Current Technical Assistance for Public Participation (TAPP):	N/A
TAPP Title:	N/A
Potential TAPP:	N/A

FIVE-YEAR / PERIODIC REVIEW SUMMARY

Review Summary Table

None

ROD/DDs associated with the last Five-Year/Periodic Review

None

Results, Actions & Plans

None

LAND USE CONTROLS (LUC) SUMMARY

None

SEA GIRT/ARMORY, FMS 2

Army Cleanup Program

Installation Action Plan

2023

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ACRONYMS

Acronym	Definition
AEDB-R	Army Environmental Database - Restoration
AOC	Area of Concern
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CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
DD	Decision Document
ENV	Environmental
FS	Feasibility Study
HQAES	Headquarters Army Environmental System
IR	Installation Restoration
IRA	Interim Remedial Action
LTM	Long-Term Management
LUC	Land Use Control
MR	Munitions Response
MRSP	Munitions Response Site Prioritization Protocol
NJARNG	New Jersey Army National Guard
PA	Preliminary Assessment
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operations)
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
RIP	Remedy-In-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SI	Site Inspection
UST	Underground Storage Tank
WBS	Work Breakdown Structure

PHASE TRANSLATION TABLE

HQAES Phase ID	CERCLA Phase	RCRA Phase	RCRA UST Phase
.01	Preliminary Assessment (PA)	RCRA Facility Assessment (RFA)	Initial Site Characterization (ISC)
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.03	Remedial Investigation/ Feasibility Study (RI/FS)	RCRA Facility Investigation/Corrective Measures Study (RFI/CMS)	Corrective Action Plan (CAP)
.04	Remedial Design (RD)	Design (DES)	Design (DES)
.05	Interim Remedial Action (IRA)	Interim Measure (IM)	Interim Remedial Action (IRA)
.06	Remedial Action (Construction) (RA(C))	Corrective Measures Implementation (Construction) (CMI(C))	Implementation (Construction) (IMP(C))
.07	Remedial Action (Operation) (RA(O))	Corrective Measures Implementation (Operation) (CMI(O))	Implementation (Operation) (IMP(O))
.08	Long-Term Management (LTM)	Long-Term Management (LTM)	Long-Term Management (LTM)

SITE ALIAS LIST

HQAES ID	AEDB-R Reference	Site Alias
4206A.1001	CCNJB90041_SEA GIRT FACILITY WIDE INVEST	--

SEA GIRT/ARMORY, FMS 2

COMPLIANCE CLEANUP SITES

CCNJB90041 SEA GIRT FACILITY WIDE INVESTIGATION

HQAES ID: 4206A.1001

Alias: None

Regulatory Driver: State Law/Statute

RRSE: Not assigned

MRSPP: Not assigned

RIP Date: 9/15/2031

RC Date: 9/15/2031

RC Reason: Not assigned

Program: Compliance Cleanup

Subprogram: CC

<i>Phases</i>	<i>Start</i>	<i>End</i>
PA	9/30/2018	8/21/2019
SI	9/30/2018	8/21/2019
R/FS	8/29/2019	9/15/2031
RD	--	--
IRA	--	--
RA(C)	--	--
RA(O)	--	--
LTM	--	--

Site Narrative

The Sea Girt National Guard Training Center is located on Sea Girt Avenue in Sea Girt, New Jersey and covers approximately 167 acres. The facility has been used as the New Jersey Army National Guard (NJARNG) training grounds since 1861 and is still an active NJARNG facility.

A Final Preliminary Assessment (PA) Report was completed in August 2019. A total of 86 Areas of Concern (AOCs) were identified. A total of 53 AOCs were recommended for Site Investigation and the remainder required no further investigation/action based on the evaluation of lines of evidence presented in the PA Report.

Cleanup/Exit Strategy Initial remedial investigations of 53 AOCs will be performed. Currently there isn't sufficient documentation to plan for future actions.

SITE CLOSEOUT SUMMARY

HQAES ID	Site Name	Site Closeout Date
4206A.1002	CCNJB90042_SEA GIRT FMS GASOLINE UST	9/15/2011
4206A.1003	CCNJB90012 SEA GIRT NGTC TRANSFORM SPILL	12/15/2015
4206A.1004	CCNJB90071_POWERHOUSE AND THEATER USTS	9/15/2011
4206A.1005	CCNJB90072_Sea Girt Armory and Medical B	12/31/2011
4206A.1006	CCNJB90073_SEA GIRT FMS UST'S	8/30/2011
4206A.1007	CCNJB90101_SEA GIRT RANGE ASBESTOS DEBRI	3/15/2017
4206A.1008	CCNJB90131 SEA GIRT BLDG 60 GAS USTs	12/31/2021

COMMUNITY INVOLVEMENT

Technical Review Committee (TRC) Establishment Date:	N/A
Community Involvement Plan (Date Published):	N/A
Restoration Advisory Board (RAB) Establishment Date:	N/A
RAB Adjournment Date:	N/A
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FIVE-YEAR / PERIODIC REVIEW SUMMARY

Review Summary Table

None

ROD/DDs associated with the last Five-Year/Periodic Review

None

Results, Actions & Plans

None

LAND USE CONTROLS (LUC) SUMMARY

None

WOODBURY/ARMORY, UTMB

Army Cleanup Program

Installation Action Plan

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.05	Interim Remedial Action (IRA)	Interim Measure (IM)	Interim Remedial Action (IRA)
.06	Remedial Action (Construction) (RA(C))	Corrective Measures Implementation (Construction) (CMI(C))	Implementation (Construction) (IMP(C))
.07	Remedial Action (Operation) (RA(O))	Corrective Measures Implementation (Operation) (CMI(O))	Implementation (Operation) (IMP(O))
.08	Long-Term Management (LTM)	Long-Term Management (LTM)	Long-Term Management (LTM)

SITE ALIAS LIST

HQAES ID	AEDB-R Reference	Site Alias
4217A.1001	CCNJC50041_Woodbury FMS UST's	NJ25097001

WOODBURY/ARMORY, UTMB

COMPLIANCE CLEANUP SITES

CCNJC50041_Woodbury FMS UST's

HQAES ID: 4217A.1001

Alias: NJ25097001

Regulatory Driver: State Law/Statute

RRSE: Not assigned

MRSPP: Not assigned

RIP Date: 12/31/2030

RC Date: 12/31/2030

RC Reason: Not assigned

Program: Compliance Cleanup

Subprogram: CC

<i>Phases</i>	<i>Start</i>	<i>End</i>
PA	4/30/1995	2/15/2016
SI	4/30/1995	2/15/2016
RI/FS	3/31/2005	3/15/2024
RD	10/1/2022	9/15/2024
IRA	--	--
RA(C)	1/1/2030	12/31/2030
RA(O)	--	--
LTM	--	--

Site Narrative

The Woodbury Armory consists of one armory building, one Field Maintenance Shop (FMS) building (no longer in use), and two motor vehicle storage buildings (used as cold storage). The armory and FMS were built in 1931 and 1941, respectively. The remaining buildings were built sometime later. Traditional Guard soldiers use the FMS on drill weekends to perform field level maintenance of New Jersey Army National Guard (NJARNG) wheeled vehicles while the motor vehicle storage buildings are used as cold storage. A site-wide Preliminary Assessment (PA) was finalized and submitted to New Jersey Department of Environmental Protection (NJDEP) in February 2016, which identified 29 potential areas of environmental concern (PAOC). Further remedial investigation (RI) was recommended in the PA for twelve PAOCs, including the former and potential underground storage tanks (USTs) (AOCs 1-4, 6, 27, 28), a former diesel fuel surface spill (AOC 11), existing floor drains (AOC 12), floor-stained areas (AOC 13, 18), and a former hydraulic lift and vehicle service pit (AOC 21). Based on the recommendations presented in the PA Report, groundwater (May 2016), geophysical and soil (October 2016) investigations were performed. Based on the results of the groundwater investigation, further RI was recommended. Soil investigations were performed at AOCs 4, 6, 11, 12, 13, 18, and 21.

Based on the results of the RI, no further action was required at AOCs 6, 11, 12, 13, and 18. Further soil sampling to address elevated extractable petroleum hydrocarbon (EPH) concentrations at AOCs 4 (former 500-gallon Waste Oil UST) and 21 (the former hydraulic lift and vehicle service pit) was performed in September 2019. Based on the analytical results, additional RI sampling was performed at AOCs 4 and 21, in June 2021. Remedial Action Work Plans (RAWPs) for AOCs 4 and 21 were prepared and submitted to the NJDEP. The RAWPs proposed the excavation and disposal of petroleum impacted soil. Primary contaminants of concern (COCs) include EPH (detected up to 10,000 parts-per-million (ppm)) and 2 methynaphthalene (detected up to 26 ppm) with concentrations exceeding the NJDEP criteria (3800 ppm for EPH and 3.1 ppm for 2 methynaphthalene).

A full round of groundwater sampling was performed in October 2019 (all wells) and six quarterly sampling events were completed. Contaminant results were below NJDEP criteria for groundwater. No further action is required for groundwater.

Cleanup Strategy: Soil excavation and disposal activities will be completed at AOCs 4, and 21. The approximate excavations will total 750 cubic yards or 1120 tons of contaminated soils. A Remedial Action Report and Response Action Outcome Report for AOC 4 and 21 will be completed by a Licensed Site Remediation Professional (LSRP) for submission to NJDEP.

SITE CLOSEOUT SUMMARY

None

COMMUNITY INVOLVEMENT

Technical Review Committee (TRC) Establishment Date:	N/A
Community Involvement Plan (Date Published):	N/A
Restoration Advisory Board (RAB) Establishment Date:	N/A
RAB Adjournment Date:	N/A
RAB Adjournment Reason:	N/A
Additional Community Involvement:	N/A
Administrative Record is located at:	N/A
Information Repository is located at:	N/A
Current Technical Assistance for Public Participation (TAPP):	N/A
TAPP Title:	N/A
Potential TAPP:	N/A

FIVE-YEAR / PERIODIC REVIEW SUMMARY

Review Summary Table

None

ROD/DDs associated with the last Five-Year/Periodic Review

None

Results, Actions & Plans

None

LAND USE CONTROLS (LUC) SUMMARY

None