# SITE CLOSEOUT REPORT REV 2 - APPENDIX C PHOTOGRAPHS

## U.S. DEPARTMENT OF ENERGY

HIGH FLUX BEAM REACTOR STACK (BLDG 705)
DECOMMISSIONING AND DEMOLITION (D&D)
BROOKHAVEN NATIONAL LABORATORY
UPTON, NY
CERCLIS NUMBER NY 789008975

## APPENDIX C PHOTOGRAPHS

Date: 08/13/20

## **Description:**

Vacuum pump set up for coating abatement, with secondary containment.



Photo No. 02 Date: 08/13/20

## **Description:**

Offloading gravel for site access roads.



Date: 08/13/20

## **Description:**

Prepared gravel access road to stack site.



Photo No. 04 Date: 08/14/20

## **Description:**

Preparations at stack base work area.



Date: 08/17/20

## **Description:**

Stack pre-abatement.



Photo No. 06 Date: 8/22/20

## **Description:**

Railroad tracks at BNL rail yard area, prior to repairs and load area set up.



Date: 09/08/20

## **Description:**

Stack pre-abatement, during set up.



Photo No. 08 Date: 09/10/20

## **Description:**

Stack pre-abatement, during set up.



Date: 08/27/20

## **Description:**

Inspecting stack drain tank



Photo No. 10 Date: 08/27/20

## **Description:**

Site control boundary fence at right, and exclusion zone boundary fence at left.



Date: 08/27/20

## **Description:**

Abatement set up, vacuum pump in forground.



Photo No. 12 Date: 09/09/20

## **Description:**

Abatement progress above stack base.



Date: 10/13/20

## **Description:**

Abatement progress. First platform (101 ft above grade, elev. 225.5 ft) visible at top of photo.



Photo No. 14 Date: 10/13/20

## **Description:**

Abatement progress to first platform (101 ft above grade).



Date: 10/15/20

## **Description:**

Abatement scaffold at first platform (101 ft above grade).

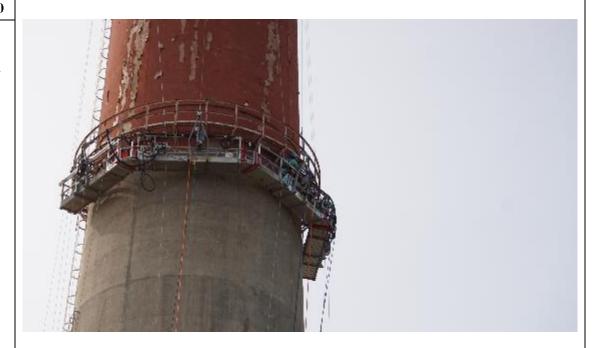


Photo No. 16 Date: 10/16/20

## **Description:**

Abatement scaffold at first platform (101 ft above grade), removing eastern half of platform.



Date: 10/17/20

## **Description:**

Abatement above first platform.



Photo No. 18 Date: 10/17/20

#### **Description:**

Abatement above first platform, with eastern half of platform removed and western half still in place at lower left.



Date: 10/20/20

## **Description:**

Abatement approaching second platform (209 ft above grade).



Photo No. 20 Date: 11/05/20

## **Description:**

Abatement completed to stack top cap.



Date: 11/10/20

## **Description:**

Demolishing silencer structure to create breach opening.



Photo No. 22 Date: 11/13/20

## **Description:**

Preparing breach opening.



Date: 11/14/20

## **Description:**

Preparing breach opening.



Photo No. 24 Date: 11/16/20

## **Description:**

Preparing breach opening.



Date: 11/16/20

## **Description:**

Installing debris shield over breach opening.



Photo No. 26 Date: 11/18/20

## **Description:**

Mantis lift by crane.



Date: 11/18/20

**Description:** 

Mantis lift by crane.



Photo No. 28 Date: 11/18/20

**Description:** 

Mantis lift by crane.



Date: 11/19/20

## **Description:**

Work platform (K-bracket) preparation.

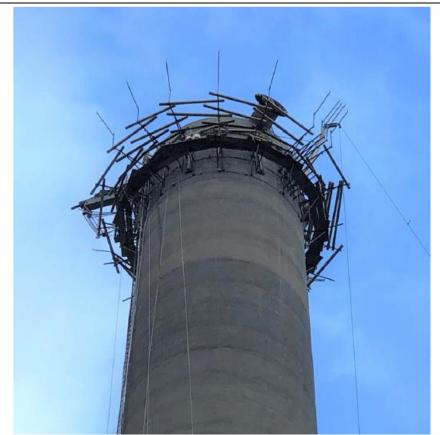


Photo No. 30 Date: 11/19/20

## **Description:**

Work platform (K-bracket) preparation.



Date: 1/4/21

## **Description:**

Removing debris shield doors to remove stack debris from bottom of stack.



Photo No. 32 Date: 1/4/21

## **Description:**

Removing stack demolition debris from bottom of stack and loading into IMC



Photo Date: No. 33 1/11/21

#### **Description:**

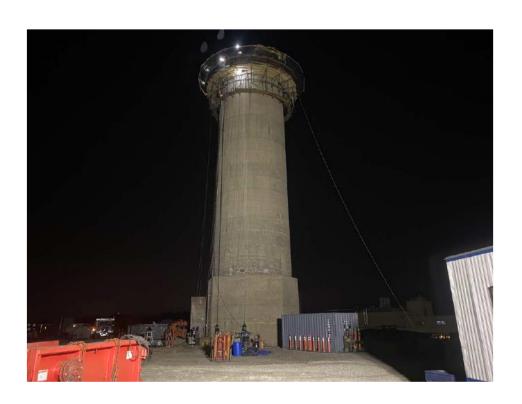
Demolition crew being lifted to work platform situated approx. 180 ft above grade.(stack demolition ~56% complete).



Photo No. 34 Date: 1/15/21

## **Description:**

Stack demolished to approx..110 ft above grade (demolition approx. 65% complete).



Date: 1/22/21

#### **Description:**

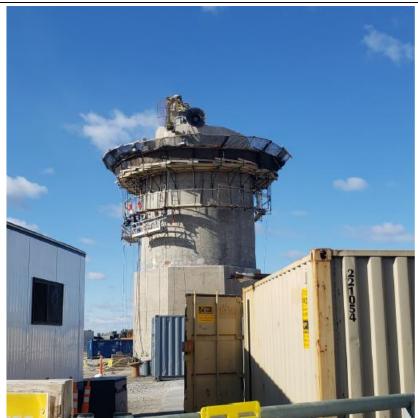
Exclusion zone gate, with demolition scaffold visible at top of stack in background. (demolition approx. 85% complete)



Photo No. 36 Date: 1/22/21

## **Description:**

Mantis approaching base of stack (demolition approx. 85% complete)



Date: 2/1/21

## **Description:**

Stack demolition reaches top of stack base (approx.. 95% complete)



Photo No. 38 Date: 2/1/21

## **Description:**

Stack demolition reaches top of stack base (approx.. 95% complete)



Date: 2/8/21

## **Description:**

Mantis removed from top of stack



Photo No. 40 Date: 2/8/21

## **Description:**

Mantis removed from top of stack



Date: 2/15/21

## **Description:**

Demolition of stack base.



Photo No. 42 Date: 2/16/21

## **Description:**

I beam and rebar reenforces concrete over stack breach door.

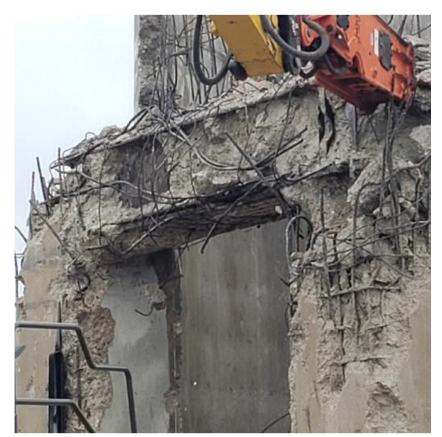


Photo Date: No. 43 2/16/21

**Description:** 

Demolition of stack base.



Photo No. 44 Date: 2/16/21

**Description:** 

Demolition of stack base.

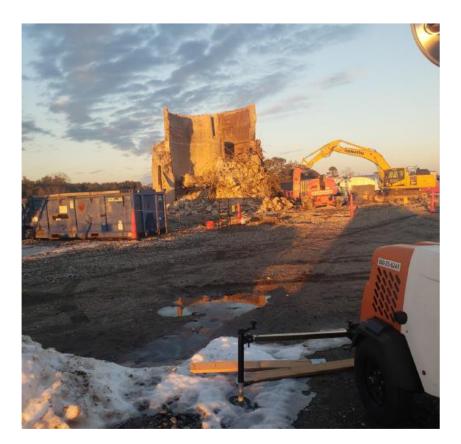


Photo Date: 2/20/21

## **Description:**

Interior duct of stack exposed after stack base demolition.



Photo No. 46 Date: 2/20/21

## **Description:**

Loading debris-filled IMCs on to rail cars at rail yard.



Photo Date: 2/20/21

## **Description:**

Loading debris-filled IMCs on to rail cars at rail yard.



Photo No. 48 Date: 2/20/21

## **Description:**

Loading debris-filled IMCs on to rail cars at rail yard.



Photo No. 49 Date: 2/20/21

## **Description:**

Rail cars loaded with debris-filled IMCs ready for departure.



Photo No. 50 Date: 3/15/21

#### **Description:**

Removing soil from inside the silencer.



Photo Date: 3/15/21

## **Description:**

Loading super sacks.



Photo No. 52 Date: 3/16/21

## **Description:**

Filled super sacks staged.



Date: 3/5/21

## **Description:**

Stack drain tank being removed



Photo No. 54 Date: 3/23/21

## **Description:**

Looking south at the three stack drain pipes entering the pedestal



Photo Date: No. 55 4/1/21

## **Description:**

View of the stack drain tank excavation looking east.



Photo No. 56 Date: 04/01/21

#### **Description:**

View looking east at the installed shoring box in the stack drain tank excavation



Date: 4/6/21

## **Description:**

Loading super sacks to transport from site to rail yard.



Photo No. 58 Date: 4/6/21

## **Description:**

Loading super sacks to transport from site to rail yard.



Date: 04/06/21

## **Description:**

Staging of Pactec soil bags on site



Photo No. 60 Date: 04/07/21

## **Description:**

View of IMCs and soil sack staging in the railyard area in preparation for transport



Date: 4/7/21

**Description:** 

Silencer removal.

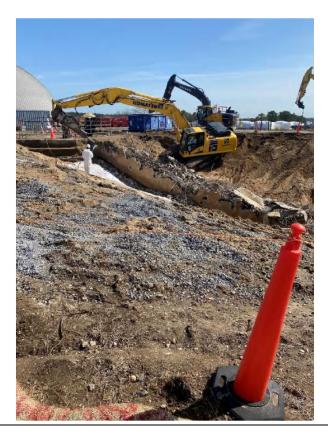


Photo No. 62 Date: 4/7/21

**Description:** 

Silencer removal.



Date: 4/7/21

#### **Description:**

Silencer removal.



Photo No. 64 Date: 04/16/21

#### **Description:**

Pedestal scabbling with a secondary enclosure around the machine and connected to a dual-filter HEPA filtration system. The tented room is used to bag removed concrete and to service machines.



Date: 04/12/21

## **Description:**

Silencer excavation looking towards southwest, showing dark gray outline of silencer footer.

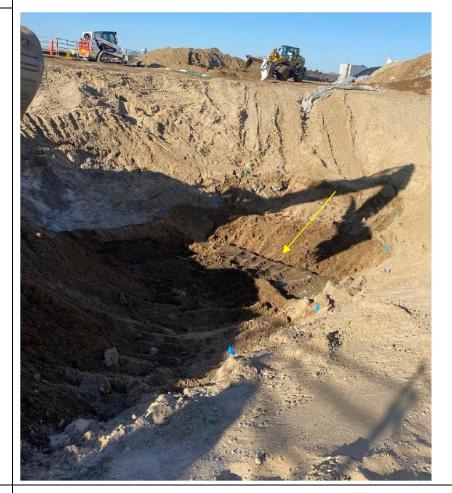


Photo No. 66 Date: 4/20/21

#### **Description:**

Silencer excavation looking north showing the hammering of footer.



Date: 4/23/21

#### **Description:**

Scabbled pedestal surface with up to one inch of concrete removed.



Photo No. 68 Date: 4/28/21

## **Description:**

Silencer excavation viewed from pedestal showing concrete from Footer A and exposed top[ of Footer B.



Date: 5/18/21

### **Description:**

Surface condition of pedestal surface. Rutted area from former stack base, rebar, core sample locations in blue paint, and scabbler machine are shown.



Photo No. 70 Date: 5/18/21

### **Description:**

Looking W from the pedestal at the silencer excavation while impacted soil is removed.



Date: 5/18/21

### **Description:**

Looking NW at the silencer excavation and removal of impacted soil within the shoring box



Photo No. 72 Date: 6/8/21

## **Description:**

Looking north at the installation of lower shoring box over Footer A within the silencer excavation.



Date: 6/15/21

### **Description:**

Looking southwest at the pedestal during the start of the vertical saw cutting process.



Photo No. 74

Date: 6/15/21

## **Description:**

Looking north at the silencer excavation during a manlift evaluation to determine the extent of possible rad screening coverage.



Date: 6/18/21

### **Description:**

Looking north at pedestal while the northwest quadrant is being horizontally cut to a 12-inch depth.



Photo No. 76 Date: 6/21/21

## **Description:**

Looking southwest at pedestal showing replacement of a gutter drain system to tank with a 4" PVC drain pipe.



Date: 7/13/21

## **Description:**

Looking south, concrete saw setting up on crack area to be sawed for removal.



Photo No. 78 Date: 7/13/21

### **Description:**

Yellow marks areas where vertical cracks were observed at one foot below original pedestal surface.



Date: 7/14/21

## **Description:**

Scanning bottom of a box cut.



Photo No. 80 Date: 7/20/21

# **Description:**

Looking southeast, wire cutting ongoing at the steps of the stack pedestal.



Date: 7/28/21

### **Description:**

Looking southeast, drain lines being scrubbed and cleaned prior to flushing.



Photo No. 82 Date: 7/30/21

## **Description:**

Radiation screening activity at the southeast corner of the silencer excavation. Pedestal steps have been cut off at left.



Date: 7/30/21

### **Description:**

Looking south, completing cleanout of final silencer excavation to prepare for FSS.



Photo No. 84 Date: 8/2/21

## **Description:**

Decontamination of heavy equipment within the radiation zone.



Date: 8/3/21

## **Description:**

Looking northwest, soil removal activities competed east of the pedestal,



Photo No. 86 Date: 8/10/21

Description:
Manlift basket for conducting
FSS/ORISE
Verification



Date: 8/10/21

**Description:** FSS: radiological screening of the north wall of the excavation. Stockpiled soil under blue tarp has been screened and analyzed for re-use as backfill.



Photo No. 88 Date: 8/10/21

**Description:**Shoring box at bottom of excavation.



Date: 8/17/21

**Description:** FSS soil sampling being performed at the foot of the pedestal



Photo No. 90 Date: 8/17/21

**Description:** Crane at railyard being set up to load IMCs



Date: 8/17/21

**Description:**Loading IMCs on a rail car



Photo No. 92 Date: 8/24/21

# **Description:**

FSS scanning.



Date: 8/24/21

**Description:** FSS soil sampling along the northern slope of the silencer excavation.



Photo No. 94

Date: 8/24/21

**Description:**Setting up survey grid for FSS at pedestal.



Date: 8/26/21

**Description:** Alpha/Beta static measurements being performed at pedestal.



Photo No. 96 Date: 8/28/21

**Description:** Core drill for collecting concrete samples from pedestal for FSS



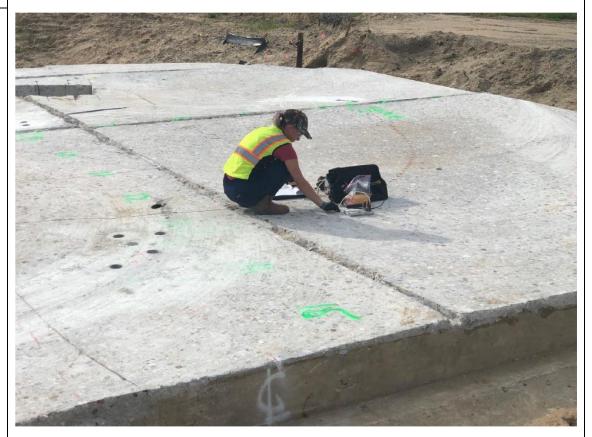
Date: 8/29/21

**Description:** Final rail shipment leaving site.



Photo No. 98 Date: 8/30/21

**Description:** ORISE performing IV at pedestal.



Date: 9/7/21

**Description:** Trench box being removed from silencer excavation.



Photo No. 100 Date: 9/7/21

**Description:** Trench box being removed from silencer excavation.



Date: 9/8/21

**Description:** Start of backfill in the silencer excavation area



Photo No. 102 Date: 9/13/21

**Description:** Grouting the pedestal drain pipes.



Date: 9/13/21

**Description:**Closeup of grouted pipe on pedestal surface.



Photo No. 104 Date: 9/13/21

**Description:**Closeup of grouted pipe on pedestal surface.



Date: 9/13/21

**Description:** Backfill and compaction using gas-powered tamper in the former stack drain tank area.



Photo No. 106 Date: 9/21/21

**Description:**Looking north, backfill and compaction complete.



Date: 9/21/21

Description: Looking south, backfill and compaction complete.

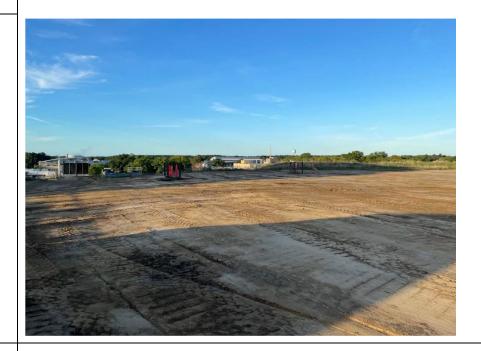


Photo No. 108

Date: 9/21/21

Description:
Looking southeast,
landscape rake used
to prepare site for
Hydroseed.



Date: 9/27/21

**Description:** Access road to project site trailers restored, with erosion control.



Photo No. 110 Date: 9/27/21

**Description:** Access road to construction site.



Date: 9/27/21

# **Description:**

Looking east, former trailer area prepared for Hydroseed.



Photo No. 112

Date: 9/27/21

**Description:**Landscape rake has prepared site for Hydroseed.



Date: 10/4/21

**Description:** 

Hydroseed equipment on site.



Photo No. 114 Date: 10/4/21

Description:
Looking west across
project site,
hydroseeding
complete.

