SM-1A NUCLEAR POWER PLANT
DECOMMISSION AND DISMANTLEMENT

U.S. Army Corps of Engineers

Public Meeting: 6:00-8:00pm,
Monday, March 25, 2024
Community Center, 2288 Deborah Street,
Delta Junction, Alaska

DEACTIVATED SM-1A NUCLEAR POWER PLANT DECOMMISSIONING AND DISMANTLEMENT

Initial VC Entry Storyboard

22 Feb 2024

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SUSTAIN SUPPORT DEFEND

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SM-1A VC ENTRY SUMMARY

The Baltimore District and A3D team was onsite at Fort Greely, AK from 22 Jan through 16 Feb 24 to collect annual environmental samples/dosimetry and to enter the VC for the first time since 2011.

- The primary goals of the VC entry was to:
  - Assess current VC condition
  - Collect data for future waste profiling and health and safety needs
  - Identify any potential data gaps
  - Identify the general characteristics of the AM-9 grout mixture known to be present in the VC
  - Perform a Hazardous Building Material Survey

- Over the course of the field evolution the team completed the following activities:
  - 22-24 Jan – Environmental monitoring and dosimetry change out.
  - 25 Jan – Released the welds on the outer hatch through grinding and cutting.
  - 26-27 Jan – The inner hatch welds were released and the hatch was opened for IH monitoring and ventilation.
  - 29 Jan – IH sampling indicated the VC was safe to enter and a 3-person team performed a Radcon, safety, and structural survey of the inner VC.
  - 29 Jan – 2 Feb - Cutting operations were performed to the VC inner hatch to enlarge the entrance.
  - 6 Feb – 8 Feb – Team set up drilling operations to sample the grout on the VC floor and concrete walls.
  - 9 Feb – 12 Feb – Team inspected the PST cap and drilled through the top 4 feet of PST encasement.
  - 13 Feb – 14 Feb – VC was cleaned and inventoried. The VC inner hatch was sealed and secured. Outer VC hatch was welded shut, chained and padlocked.
  - 15 Feb – 16 Feb – Demobilization of field team.

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SM-1A VC HATCH ACCESS

The outer and inner hatches were opened and IH monitoring occurred to ensure a safe atmosphere for the workers.

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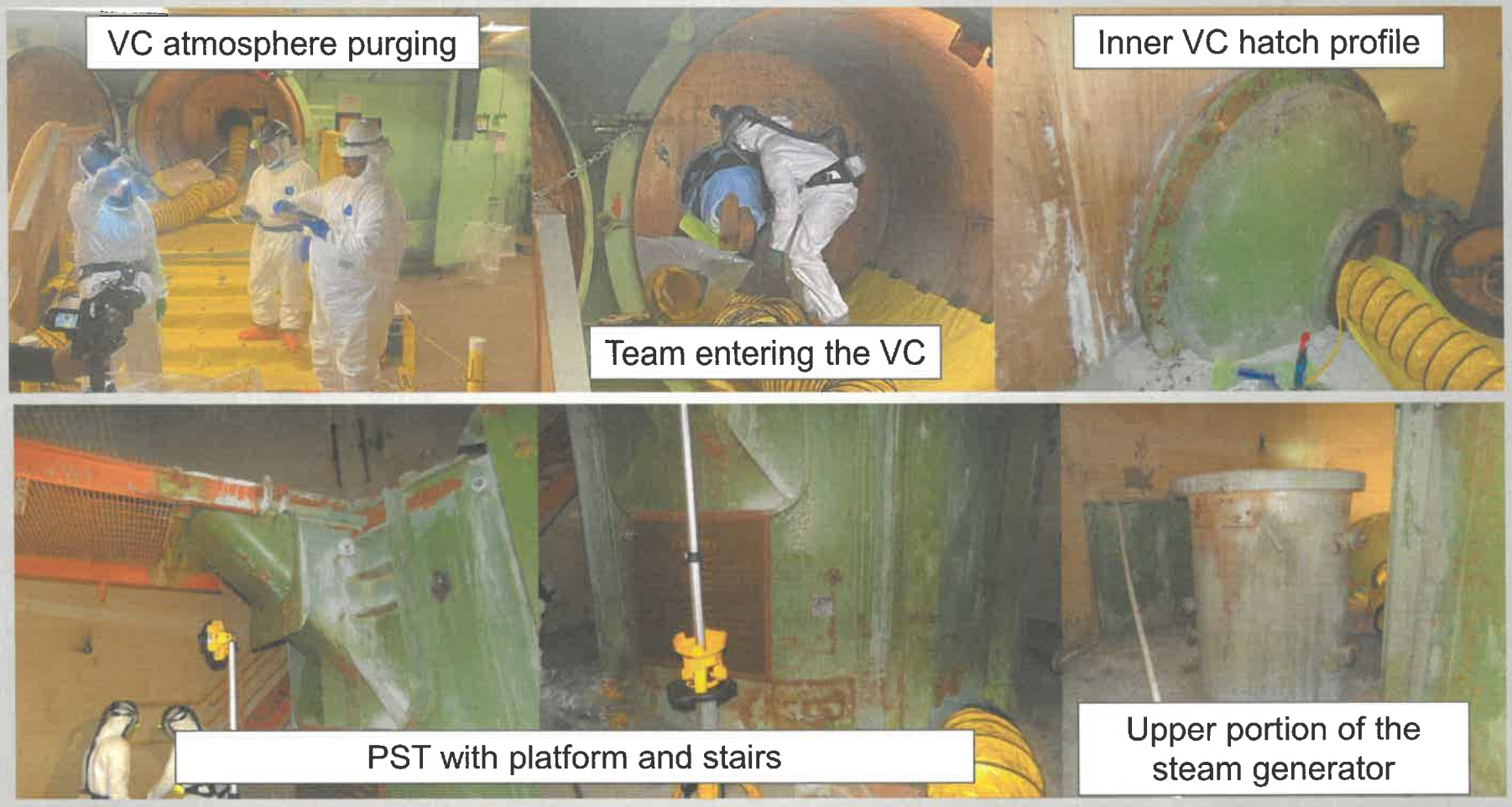
SM-1A VC ENTRY



VC atmosphere purging

Team entering the VC

Inner VC hatch profile

PST with platform and stairs

Upper portion of the steam generator

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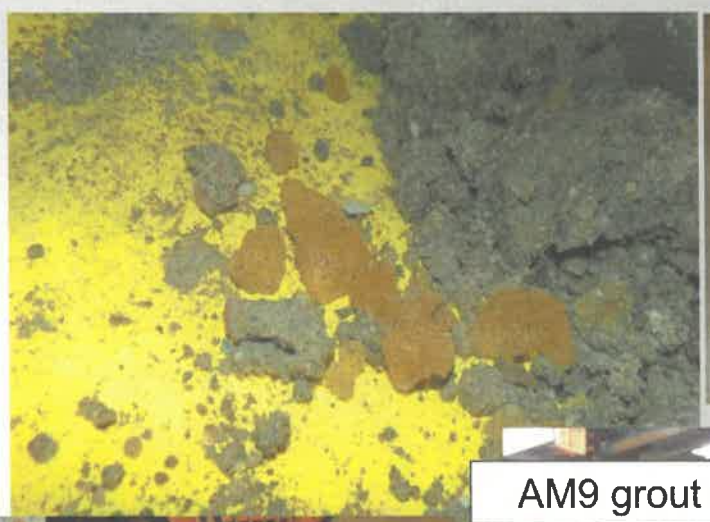
SM-1A VC HATCH CUTTING AND SAMPLING

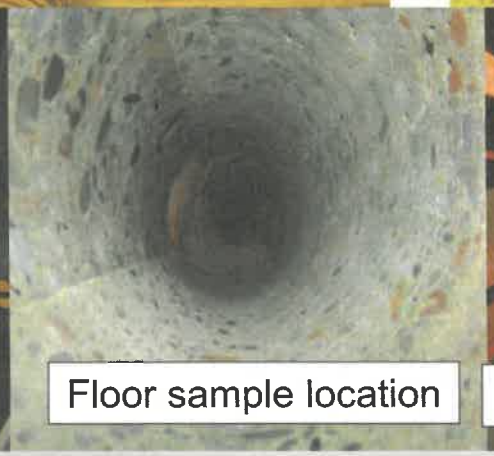
Hatch enlargement



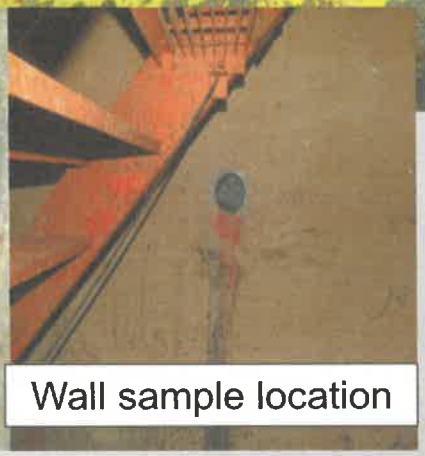
Time capsule

AM9 grout mixture

Coring setup



Floor sample location



Wall sample location

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SM-1A VC ENTRY LESSONS LEARNED

The VC entry allowed us to meet all our primary goals, as well as gain knowledge that will assist us in refining our D&D approach.

- During the field activities, we discovered the following:
  - AM-9 grout will impact our future approach
  - The upper PST is filled with concrete and will require additional engineering to plan removal and disposal.
  - IH samples collected during the activities indicate the need for robust health and safety precautions.
  - Sample analysis results will drive decisions regarding waste handling, packaging, transport and disposal.
  - Extreme cold and wind (exceeding 60 mph sustained winds) was experienced and will drive future designs.

- A summary report detailing the complete study, findings, and lessons learned will be developed and used in our continued discussions for a path forward.