Appendix A – Public Information and Outreach

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SM-1 Project Update, January 10, 2018

Dear SM-1 Stakeholders,

Thank you for signing up to receive periodic updates regarding the ongoing efforts to decommission and dismantle the deactivated SM-1 former nuclear power plant at Fort Belvoir. This is the first of what will be several stakeholder updates that we'll be sending over the course of this project.

We are still in the early planning stages of this project, but as part of our commitment to open and transparent communication, we will be sending stakeholder updates as we reach major project milestones and especially when there are opportunities for stakeholders to interact with the project team and provide feedback.

Our first opportunity for stakeholders to meet with team members, ask questions and provide direct feedback will be later this month. We'll be hosting information sessions both on- and off-post and look forward to hearing from the community.

The project team will be on-post at Thurman Hall (Building 247) during the afternoon and evening of January 28 to discuss the project, get feedback and answer questions from interested members of the Fort Belvoir community who work and live on post. The afternoon session will consist of an open house period with information posters where the public can meet and interact with USACE and Fort Belvoir personnel working on the project from 1pm to 3pm, with a formal presentation scheduled to be given at 2pm followed by questions and answers. The evening session will begin with another open house session from 6:30pm to 7:30pm, which will be followed by a formal presentation about the SM-1's history and ongoing decommissioning planning and a subsequent question and answer session and additional poster availability from 7:30pm to 8:30pm.

The following evening, January 29, the project team will be hosting a similar information session off-post at Fairfax County's South County Government Center (8350 Richmond Hwy, Alexandria) for anyone on- or off-post interested in providing feedback and learning more about the project. The session will consist of an open house period with information posters where the public can meet and interact with USACE and Fort Belvoir personnel working on the project from 6:30pm to 7:30pm, which will be followed by a formal presentation about the SM-1's history and ongoing decommissioning planning and a subsequent question and answer session and additional poster availability from 7:30pm to 8:30pm.

Our team wants to understand any concerns the community may have as we move forward with our planning, and also provide vital project information, as well.

The SM-1 project team is also committed to a fair, open and transparent contracting process. As part of that commitment, we are hosting an Industry Day on February 8, also at Fairfax County's South County Government Center. Contractors interested in more information regarding this Industry Day, including instructions on how to RSVP, can see the full official notice on FedBizOpps.gov at https://go.usa.gov/xEbrQ.

As a reminder, the deactivated SM-1 former nuclear power plant on Fort Belvoir has been deactivated since the early 1970s. The U.S. Army Corps of Engineers, Baltimore District is a Regional Radiological Center of Expertise and has been designated to carry the SM-1 decommissioning and dismantlement.

Completed in 1957, the SM-1 nuclear reactor at Fort Belvoir was the first nuclear power facility in the United States to be connected to a public utility grid. Over several years, it provided power primarily to Fort Belvoir and served as a training facility for nuclear technicians from all military branches before being deactivated and partially decommissioned in the early 1970s.

The initial dismantlement and decommissioning involved the removal of a majority of the radioactivity from the site, including the removal of the nuclear fuel and control rods, decontamination work around the facility, radioactive waste removal, and the sealing of the Reactor Containment Vessel which holds the Reactor Pressure Vessel and other reactor components.

USACE is working to develop and finalize the various planning documents for the final decommissioning and dismantling of the facility.

We want to take this opportunity to emphasize that safety is the team's number one priority for this project. The safety and health of the installation, the local community and our workers are paramount to the success of our project. We will be using proven controls and precautions to address safety and other engineering details during all stages of the decommissioning of the SM-1.

Just recently, the Baltimore District's expert team safely completed the decommissioning of another one of the Army's deactivated nuclear reactors – the MH-1A on the STURGIS barge in Galveston, Texas. We are excited to build on that record of success and safety as planning moves forward for the SM-1 decommissioning and dismantlement.

As the team continues through the planning phase, we have begun initial market research to assess what companies may be able to implement this large, unique and complex project. This is just the first of many steps our team will be taking to ensure a fair, open and transparent contracting process. We anticipate issuing a draft request for proposals for a decommissioning contract in the first half of calendar year 2019 to solicit industry feedback with a formal RFP later in the year and an anticipated contract award date around the middle of calendar year 2020.

You can read more about the project and the SM-1's unique history in this feature online that is also in the current edition of Fort Belvoir's garrison newspaper, the Belvoir Eagle - http://www.belvoireagleonline.com/.

We have also recently launched a web site for the SM-1 project where additional information is available - www.nab.usace.army.mil/Missions/Environmental/SM-1/

And, as always, feel free to e-mail any questions or concerns you may have to Baltimore District's Corporate Communication Office at CENAB-CC@usace.army.mil.

The U.S. Army Corps of Engineers (USACE), Baltimore District, will hold an Industry Day on 8 February 2019 located at the Fairfax County's South County Government Center (Room 221). The Industry event will be hosted by USACE - Baltimore District for the purpose of discussing the plan for the Decommissioning and Disposal Activities for the SM-1 Deactivated Nuclear Power Plant Facility located at Fort Belvoir, Va. The Industry Day will be conducted in two parts, as described below:

Part I will consist of a presentation by USACE - Baltimore District in the morning from 0900-1100 hours. This presentation will focus specifically on the Decommissioning and Disposal Activities for the SM-1 Deactivated Nuclear Power Plant Facility located at Fort Belvoir, Va. Interested parties shall follow the RSVP instructions below if you are interested in attending this presentation

Part II will consist of one-on-one sessions for those companies interested in discussing alternatives, concerns, and suggestions relative to a future Request for Proposal (RFP) for this project. Sessions will be 30 minutes in length. Companies interested in participating in a one-on-one session shall notify James Greer, in their RSVP, as instructed below. The schedule for the one-on-one visits will be made available on 28 January 2019 and specific slots will be confirmed on a first come - first serve basis with all times being confirmed no later than 01 February 2019.

INFORMATION PRESENTED DURING THE ABOVE SESSIONS IS FOR PLANNING PURPOSES ONLY, DOES **NOT** CONSTITUTE AN INVITATION FOR BID OR REQUEST FOR PROPOSAL, AND IS **NOT** A COMMITMENT BY THE GOVERNMENT TO PURCHASE DESIRED SERVICES.

USACE - Baltimore District requests that parties interested in attending SM-1 Deactivated Nuclear Power Plant Decommissioning and Disposal Activities Industry Day submit company names and attendee lists no later than **2 PM EST, 25 January 2019** via e-mail to James Greer, Contract Specialist (james.a.greer@usace.army.mil). Parties are limited to no more than four attendees, including subcontractors. The subject line of the RSVP email shall be limited to: SM-1 Industry Day RSVP from (Company Name). The body of the email shall include each attendee's name, Position/Title, email address, phone number, and indicate whether they wish to participate in a one-on-one session. Parties are encouraged to submit any additional questions via email to James Greer no later than 31 January 2019, in order for the briefing to be as informative as possible. The project website with presentations can be found at: https://www.nab.usace.army.mil/Missions/Environmental/SM-1/

The U.S. Army Corp of Engineers (USACE) holds the right to cancel and/or change the event time, date and location for any reason up to and including the day of the event. Circumstances for cancellation and/or rescheduling may include, but are not limited to: inclement weather, event venue cancellation or rescheduling, speaker cancellation or rescheduling, and insufficient number of participants for the event. In the event that the USACE must cancel or reschedule the event, the USACE will not be responsible for costs incurred in preparation. In the event of predicted inclement weather, a decision will be made by 5pm on the prior day. If the event is cancelled, an email will be sent to all registered participants.

This Special Notice does not constitute a Request for Proposal (RFP) and is not to be construed as a commitment by the Government to issue a contract or order.

Carver, Craig

From: Barber, Brenda M CIV USARMY CENAB (US) <Brenda.M.Barber@usace.army.mil>
Sent: Sunday, August 25, 2019 12:02 PM
Cc: Nappi, Rebecca (Becca) CIV USARMY CENAB (USA); Gardner, Christopher P CIV USARMY CENAB (US); Honerlah, Hans B CIV USARMY CENAB (USA); Lazo, Carlos J CIV USARMY CENAB (USA); Bonomolo, Tamara C CIV USARMY CENAB (USA)
Subject: SM-1 Project Update, August 25, 2019

Dear SM-1 Stakeholders,

The U.S. Army Corps of Engineers released the Request for Proposal (RFP) notice earlier today for the contract for the decommissioning and dismantling of the SM-1 deactivated nuclear power plant at Fort Belvoir. With the release of the RFP, the team remains on schedule to award a contract for this work in the latter half of 2020.

A site visit will be held for all potential bidders on September 16, 2019. Additional information pertaining to this RFP and how potential bidders can participate in the site visit can be found on FedBizOpps at ? https://urldefense.proofpoint.com/v2/url?u=https-3A__www.fbo.gov_spg_USA_COE_DACA31_W912DR18R0021_listing.html&d=DwIGIw&c=TQzoP61-bYDBLzNd0XmHrw&r=Ilpvm9bVT1EdvFcKpRS4wpyohoTtoB6f2UJyGU6jBj8&m=oxjNKY55hu0M2fXl2Id0ljVSbbZliVZ2V4WVQ3npEgw&s=jOlytqaQDyqdZiAi4uVlwanZznRUUK_WK2UpIR8BNnk&e=

Additionally, the project team continues to work on the Decommissioning Planning documents, to include the Decommissioning Plan and the Environmental Assessment. The team appreciates the feedback we received from members of the community, both on-post and off-post, earlier this year. We anticipate publicly releasing the draft Environmental Assessment later this fall and having a public comment period to allow stakeholders to provide additional feedback.

Thank you all again for choosing to be a part of this process with us as we continue working through the planning phase of the decommissioning and dismantling of the deactivated SM-1.

As always, additional project information, historical photos, and previous stakeholder updates regarding the SM-1 project can be found on our website: https://urldefense.proofpoint.com/v2/url?u=http-3A__www.nab.usace.army.mil_SM-2D1_&d=DwIGIw&c=TQzoP61-bYDBLzNd0XmHrw&r=Ilpvm9bVT1EdvFcKpRS4wpyohoTtoB6f2UJyGU6jBj8&m=oxjNKY55hu0M2fXl2Id0ljVSbbZliVZ2V4WVQ3npEgw&s=MBYKxD0nN05XaUPRmW2VTEVsNXGhK6QQTOvdTD-C9Vg&e= .

If you have any questions, feedback or information you'd like to share with us, please feel free to e-mail me or call our Corporate Communication team at 410-962-2809.

Thanks

Brenda M. Barber, P.E.
U.S. Army Corps of Engineers - Baltimore District Project Manager - Environmental and Munitions Design Center
ATTN: CENAB-ENE-C
2 Hopkins Plaza
09-A-10 (Cube)
Baltimore, MD 21201
☎410-962-0030 (desk)
☎443-253-3048 (cell)

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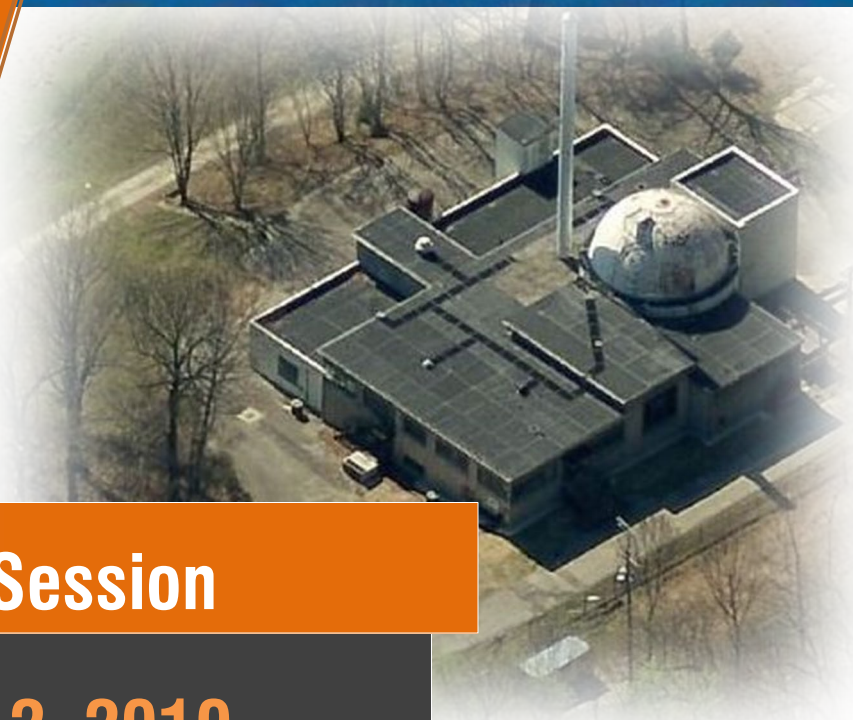
WELCOME

SM-1 DECOMMISSIONING PROJECT



Schedule

Public Info Session

6:30 PM - 7:30 PM

- Open House
- Meet and interact with USACE and Fort Belvoir personnel

7:30PM - 8:30 PM

- Formal Presentation
- Q/A Session
- Poster Availability

March 12, 2019

Off-Post
Fairfax County South
County Government Center
8350 Richmond Hwy,
Alexandria, VA
(Room 221)

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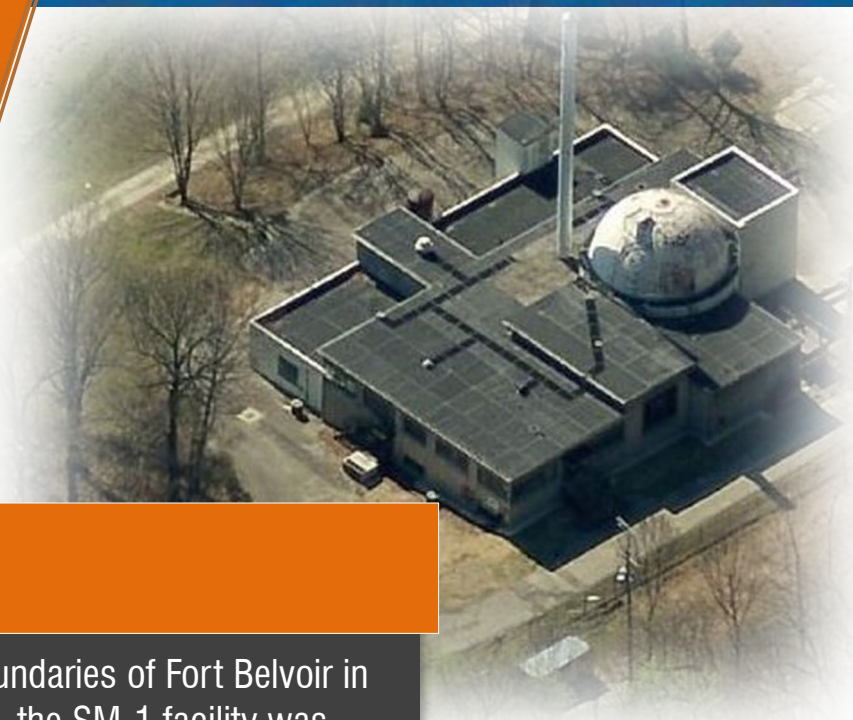
WELCOME

SM-1 DECOMMISSIONING PROJECT



Brief History

The former SM-1 nuclear power plant is situated within the boundaries of Fort Belvoir in Fairfax County, Virginia. After construction completion in 1957, the SM-1 facility was used to train U.S Army power plant operators and was capable of delivering a net 1,750 kilowatts of electrical power. It was the first nuclear power reactor to provide electricity to a commercial power grid in the United States. In 1973, the reactor facility was deactivated (shutdown) and deactivation included removal of the nuclear fuel and sealing of the reactor pressure vessel, decontamination of building areas to the extent possible, and off-site disposal of radioactive wastes. The site is now referred to as the SM-1 Deactivated Nuclear Power Plant. For more than 45 years, the site has been monitored and maintained while the accessible portions of the SM-1 facility have been used as a museum and storage space.

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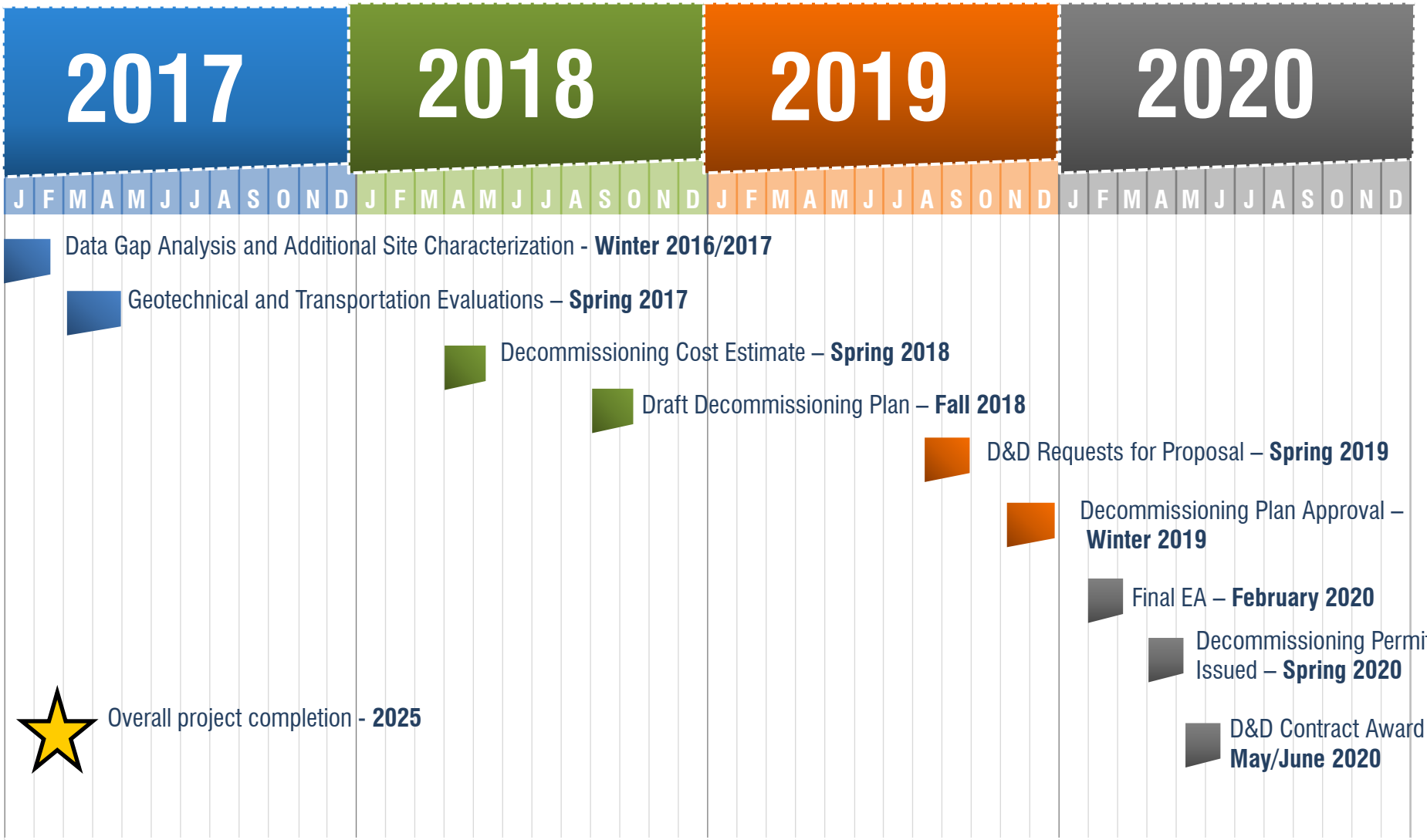
SM-1 TIMELINE/SCHEDULE



TIMELINE FOR THE SM-1 REACTOR FACILITY

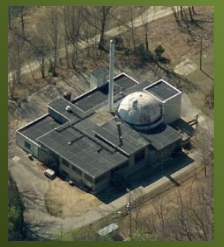
1954
U.S Army Engineer Reactors Group Established

1957-1973
SM-1 served as the Army's primary training facility to train reactor operations personnel

1996
U.S. Army Center for Health Promotion and Preventive Medicine performed extensive surveys of the SM-1 Reactor Facility and surrounding environment to provide an independent review of the environmental monitoring program

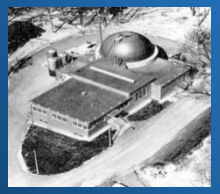
2005
Historical Site Assessment complete

2013
Site Characterization and Survey Report Finalized



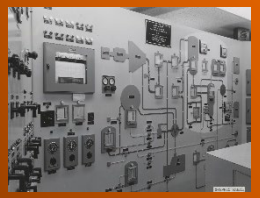
1950s | 1960s | 1970s | 1980s | 1990s | 2000s | 2010s

1957 Construction and start-up of SM-1



1962
SM-1A Reactor startup in Alaska using SM-1 prototype designs

1973-1974
Deactivation and initial decommissioning of SM-1 Reactor



LEGEND

- SM-1 Reactor in use
- Reactor deactivation and initial decommissioning
- Decommissioning planning
- Other

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WASTE SEGREGATION PROCESS

WHERE DOES IT ALL GO?

>50%

CLEAN MATERIAL & EQUIPMENT AND DEMOLITION DEBRIS FOR DISPOSAL OR RECYCLING

- ELECTRICAL DISTRIBUTION EQUIPMENT
- CONTROL ROOM CONSOLES
- BUILDING DEBRIS
  - STEEL
  - CONCRETE

TRUCKS and TRAINS TRANSPORT WASTE

<25%

<25%

HAZARDOUS WASTE FORMS TO PERMITTED LANDFILLS

- SOIL AND DEBRIS CONTAMINATED WITH VERY LOW LEVELS OF RADIOACTIVITY
- ASBESTOS INSULATION, FLOOR TILES, ADHESIVES, ETC.
- LEAD-CONTAMINATED SOILS
- UNIVERSAL WASTE (fluorescent bulbs, mercury-containing equipment, etc.)

LOW-LEVEL RADIOACTIVE WASTE TO A LICENSED DISPOSAL FACILITY

- **RADIOLOGICALLY ACTIVATED**
  - REACTOR PRESSURE VESSEL (RPV)
  - OTHER REACTOR COMPONENTS
- **RADIOLOGICALLY CONTAMINATED**
  - PRIMARY and SECONDARY REACTOR SYSTEMS
  - LIQUID WASTE MANAGEMENT SYSTEM
  - CONTAMINATED SOIL AND DEBRIS

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RADIATION, RADIOACTIVITY, AND RISK

WHAT IS RADIATION?

RADIATION
- Invisible energy moving through space

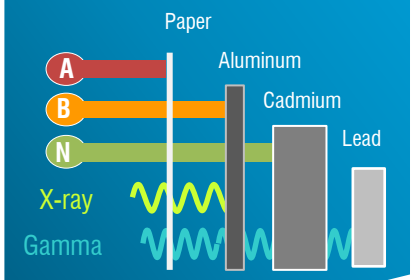
NON–IONIZING RADIATION
- Light, sound, heat or infrared waves, microwaves, radio waves, low frequency power line radiation

IONIZING RADIATION
- A: Alpha particles (fast moving helium nucleus)
- B: Beta particles (fast moving electron)
- N: Neutrons
- Gamma, X-ray

QUANTIFYING RADIATION EXPOSURE
- REM (millirem – 1/1000 REM)

Unit of absorbed dose in the body that measures the impact of deposited energy.

DIFFERENT TYPES OF RADIATION HAVE DIFFERENT PENETRATING POWERS



WHAT IS RADIOACTIVITY?

RADIOACTIVITY
- Spontaneous emission of radiation
- Is reduced as radioactive atoms decay

RADIOACTIVE ATOMS
- Are unstable
- Change or decay until they become stable
- Give off surplus energy by emitting radiation

HALF LIFE
- The time it takes for decay to half the previous radioactivity

QUANTIFYING RADIACTIVITY
- Disintegration per second (d/s)
- The number of atomic nuclei that decay each second

SOME HALF LIVES

5.27 years	Cobalt-60
100.1 years	Nickel-63
4.5 billion years	Uranium-238

WHAT IS RISK ASSESSMENT?

RISK ASSESMENT
- Evaluating benefits versus risk
- Is a smoke detector worth its radiation risk?

NO ANSWER TO THE QUESTION:
- What is a safe level of radiation exposure?

(What is a safe driving speed?)

APPROPRIATE QUESTION TO ASK IS:
- What is the risk associated with a given exposure? (What is the risk of injury for this situation and speed?)

HEALTH RISKS FROM RADIATION COMPARED WITH OTHER SITUATIONS

	Days Life Lost
Unmarried Male	3500
Smoke 20 cigarettes per day	2370
Unmarried Female	1600
Overweight by 20%	985
All accidents combined	435
Auto Accidents	200
Alcohol Consumption (U.S. averages)	130
1000 millirem per year for 30 years, calculated	30
Natural background radiation calculated	8
Medical Diagnostic X-rays	6
Coffee drinker	6

ANNUAL RADIATION DOSES IN MILLIREM - VARIOUS EXPOSURES

5,000 mrem	US OCCUPATIONAL DOSE LIMIT
2,000 mrem	TOBACCO SMOKING
1,500 mrem	UNDERGROUND URANIUM MINES
620 mrem	AVERAGE ANNUAL RADIATION PUBLIC DOSE
200 mrem	RADON IN THE AIR
100 mrem	NUCLEAR REGULATORY COMMISSION PUBLIC DOSE LIMIT
40 mrem	FOOD AND WATER
26 mrem	TERRESTRIAL RADIATION - US AVERAGE
25 mrem	SM-1 SITE RELEASE CRITERIA
10 mrem	CHEST X-RAY
1 mrem	SM-1 MATERIAL RELEASE CRITERIA

mrem =
MILLIREM=1/1000 REM.
UNIT OF ABSORBED DOSE IN THE BODY THAT MEASURES THE IMPACT OF DEPOSITED ENERGY

USACE COMMITMENT – SM-1

RISKS?

Safety is our number one priority. There will be minimal risk to the public as we implement this project. USACE will have a highly skilled team of engineers, scientists, and contractors dedicated to the project. SM-1's nuclear fuel was removed more than 40 years ago.

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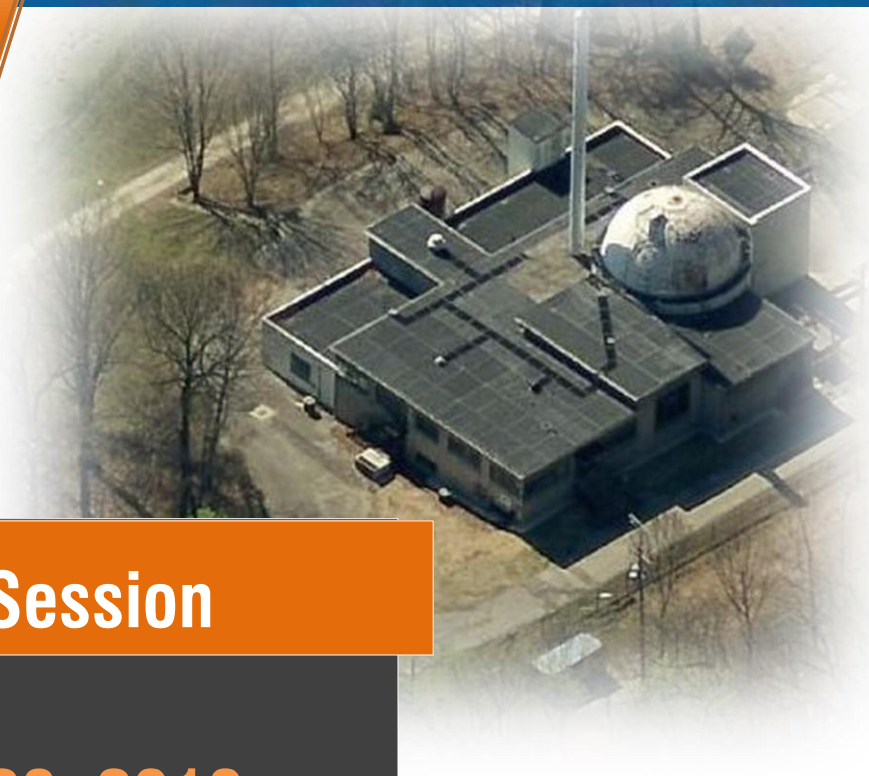
WELCOME

SM-1 DECOMMISSIONING PROJECT



Schedule

Public Info Session

Afternoon Session

1:00 PM - 2:00 PM

- Open House
- Meet and interact with USACE and Fort Belvoir personnel

2:00 PM - 3:00 PM

- Formal Presentation
- Q/A Session
- Poster Availability

January 28, 2019

On-Post
Thurman Hall
Building 247
Fort Belvoir, VA

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SM-1 DECOMMISSIONING PROJECT

Schedule

Public Info Session

6:30 PM - 7:30 PM

- Open House
- Meet and interact with USACE and Fort Belvoir personnel

7:30PM - 8:30 PM

- Formal Presentation
- Q/A Session
- Poster Availability

January 29, 2019

Off-Post
Fairfax County South
County Government Center
8350 Richmond Hwy,
Alexandria, VA
(Room 221)

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DEACTIVATED NUCLEAR POWER PLANT PROGRAM SM-1, FT BELVOIR, VA

WM2018

Session 097b US Army Corps of Engineers - Deactivated NPP Program D&D Contracting Opportunities

Brenda Barber, P.E.

Hans Honerlah, CHMM

Baltimore District, CENAB-ENE

March 2018

"The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."

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TOPICS

- History
- Decommissioning Planning

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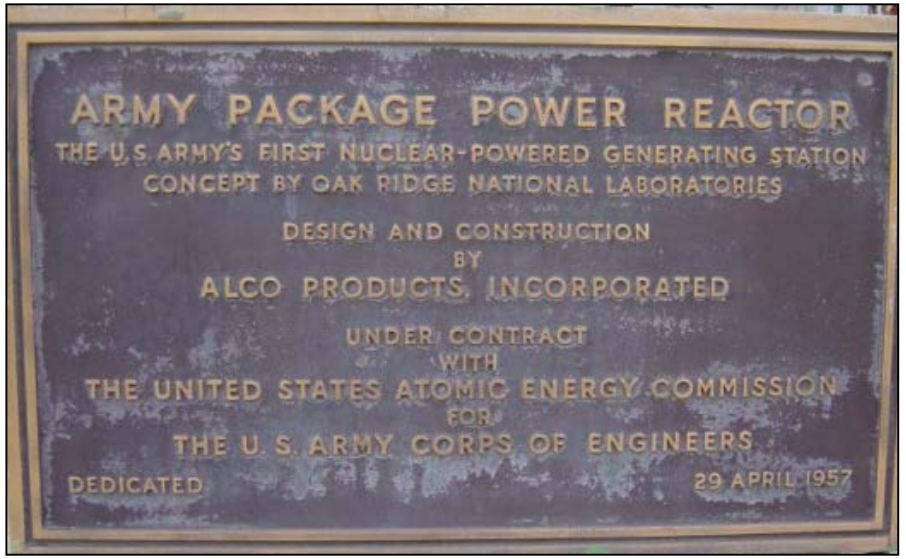
SM-1 TIMELINE: DETAILS

- SM-1 Reactor Startup: April 1957
  - Core II installed, June 1961
  - Core III installed, July 1968
- Last operation: March 1973
- Minimal Decommissioning: 1973 – November 1974
- USACHPPM Survey: October 1996
- Contractor Gamma Surveys: 1997 and 2009
- Core Component Activation Analysis: 2003
- Contractor Historical Site Assessment: 2003
- Contractor Characterization Survey Report: 2013
- Contractor Dap Gap Analysis: 2015
- Archeological Survey: 2016
- Supplemental Field Characterization: 2016

Fort Belvoir, Virginia

U.S. Army Engineer Reactors Group



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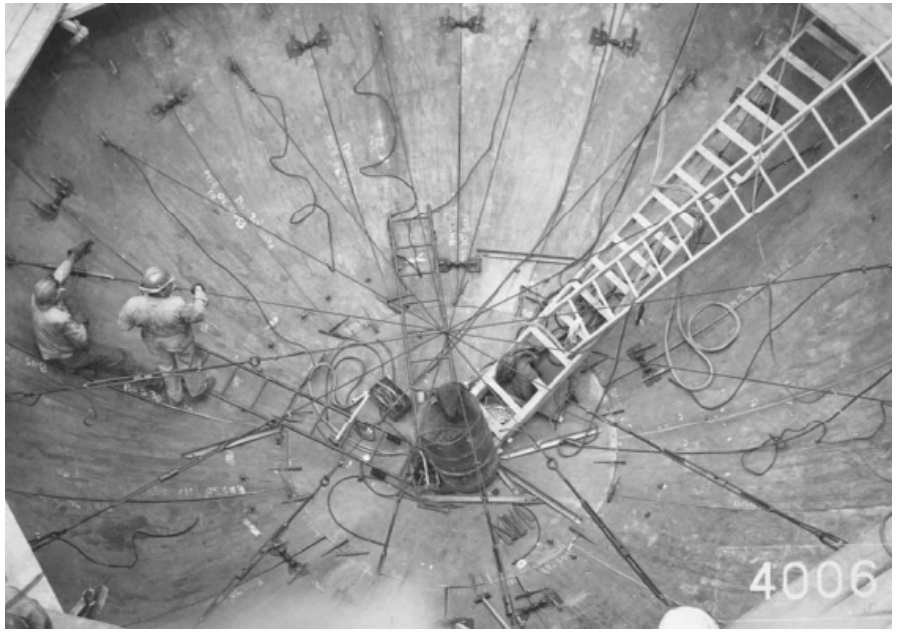

1956
Construction Photos

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PRE-SHUTDOWN DECOMMISSIONING ACTIVITIES

- Cleaned out Diesel Building
- Cleaned up Retention Building and Waste Facility
- Cleaned up “Hot Maintenance Area”
- Cleaned up secondary system
- Dug up old piping not in use
  - including discharge from retention sump (seal pit)
- Dug up selected “hot dirt areas”

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U.S.ARMY

POST-SHUTDOWN DECOMMISSIONING ACTIVITIES

- Laid up systems; generally drained of oil and filled with preservative or air dried
- Shipped absorbers, fuel, and neutron sources
- Drained and flushed primary systems, including spent fuel pit
- Cut and welded penetrations to Vapor Container
- Removed contaminated piping outside of the Vapor Container (VC), including decontamination of vent and blowdown systems
- Peeled out liner, decontaminated, welded shut spent chute, installed cover on Spent fuel pit

POST-SHUTDOWN DECOMMISSIONING ACTIVITIES

- Conducted final survey of Gunston Cove
- Cleaned and sealed VC door with chain lock system
- Filled pipe pit with concrete
- Removed Waste Facility tanks, building, and pad
- Removed Retention Building
- Removed contaminated underground piping
- Secured and posted restricted areas: Modification (MOD) area, VC, primary make-up tank room, spent fuel pit area, demineralizer room, fan loft
- Demolished Guard House (Building 373)
- Demolished Flammable Storage Building (Building 376)
- Demolished Tree House Mockup (Building A390)
- Decontaminated underground liquid radioactive waste tanks outside Training Building (Building 358) and filled them with concrete

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PRIOR CHARACTERIZATION EFFORTS TO SUPPORT DECOMMISSIONING PLANNING

- Gamma walkover surveys inside the fenced area
  - Completed in 2009; small area surveyed in 2016
- Biased and systematic soil sampling
  - Executed in 2010 and 2016
- In-plant survey to determine H-3 and alpha isotopic activity
  - Considered complete outside the VC
  - Additional samples for HTD isotopes (including H-3) collected in 2016
  - Alpha false-positive/radon analysis conducted in 2016
- Scoping surveys of buildings/sites associated with SM-1
  - Completed in 2010

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PRIOR CHARACTERIZATION EFFORTS TO SUPPORT DECOMMISSIONING PLANNING

- More extensive survey of Gunston Cove sediment
  - Completed in 2010 (20 samples collected between Whitestone Pt. and discharge pipe)
- Sampling of underground pipes
  - All pipe waste and outfall pipes assumed to be contaminated
  - Geophysical surveys to verify pipes present in 2010 and 2016
  - Investigation of sewer pipes still to be planned/executed
- Soil under SM-1 to be sampled
  - Soil is assumed to be impacted and require disposal as LLRW
  - Sampling not considered to have a significant impact on cost estimates or planning efforts

DECOMMISSIONING PLANNING EFFORTS

- Decommissioning Planning is underway – anticipate completion by 2019
  - Contract was awarded in 2014
  - Scope includes:
    - review historical documents associated with the All Hazards Analysis
    - prepare planning documents that will support the Army Reactor Office issuing the USACE a decommissioning permit for the SM-1 reactor
    - comply with other relevant Federal and State requirements that will support the long term decommissioning planning
    - Ensure adherence of project activities to NRC, Army, and Federal standards and guidance , as well as, other Federal standards and guidance where relevant, and
    - coordinate with appropriate federal, state, and public parties to support issuance of decommissioning permit and other NEPA requirements.

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MAJOR DECOMMISSIONING PLANNING DOCUMENTS

- Final Disposal Plan, Schedule and Cost Estimate
- Waste Management Plan
- Environmental Assessment
- Section 106 Effects Assessment and agreement document
- Decommissioning Plan

DECOMMISSIONING CHALLENGES

- Site has a small footprint and limited area for infrastructure
- Limited transportation routes off installation
- Coordination with the installation staff
- Proximity to base housing
- Proximity to the U.S. Capital

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