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Depleted Uranium at DoD Ranges

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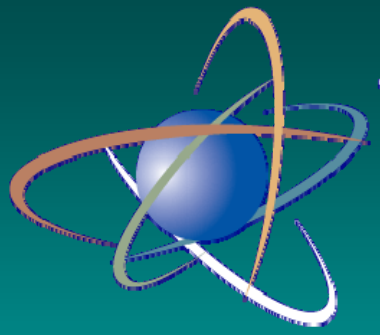

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Plan for Identification and Confirmation of the Licensing Status of Depleted Uranium on Ranges

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Purpose and Background

- The staff has developed a plan which was created to respond to public concern about ensuring that DU on ranges is appropriately controlled
- NRC will compile the following:
  - List of ranges that are licensed
  - List of ranges that are not licensed and undergoing remediation under DERP
  - List of ranges that are not licensed and need to be (if any)
- NRC staff will work collaboratively with the Navy, Air Force, and Army to confirm list

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Purpose and Background

- The NRC staff's approach uses our lessons learned from the licensing of sites with DU spotting rounds from the Davy Crockett Weapons System:
  - DU generally has limited mobility in the environment
  - Dose consequences of DU from a conservative resident farmer scenario are expected to be well below NRC's public dose limit criterion
  - The DU spotting round (part of the Davy Crockett Weapons System) was licensed by NRC and/or its predecessor in the past during its development, testing, and soldier live-fire on U.S. Army training ranges
    - The Army had no license violations during the training phase, 1962-1968
  - Residual Davy Crockett DU spotting rounds were self-identified by the U.S. Army when it found them on a training range in 2006

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Purpose and Background

- Given these lessons learned from our experiences with sites with spotting rounds from the Davy Crockett Weapons System, with DoD support, NRC staff believes that a concerted record search within historical NRC/AEC documents would appropriately identify any additional unregulated DU

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Additional Background

- The NRC staff also has gained experience from other DU sites such as Jefferson Proving Ground, a licensed DU munitions testing range which has more than 10x the amount of DU at all sites with Davy Crockett spotting rounds
  - Doses from DU at the site are currently modeled to be slightly above NRC's unrestricted use criterion of 25 millirem per year with no controls assumed
- NRC staff consider it unlikely that an unregulated range will be discovered with enough DU to cause radiological doses above the public dose limit to future land occupants and there are no currently known unregulated sites
- NRC staff will be working with the U.S. DoD to confirm that DU on firing ranges is under oversight for regulatory compliance

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Activities (NRC Actions)

- Introduced plan to the U.S. Air Force, U.S. Army, and U.S. Navy
- Identify unlicensed ranges undergoing CERCLA cleanup containing DU per the NRC/DoD MOU
  - Identify DU on ranges that are included in the annual inventory list
  - Prepare the list of sites
- Identify licensed ranges containing DU
  - Identify DU on ranges that are licensed
  - Prepare the list of sites

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Activities (NRC and DoD Actions)

- Issue a confirmation request
  - Request the Navy, Air Force, and Army to confirm that the provided list includes all active and inactive military ranges with DU that have not been remediated and are categorized as follows: (1) authorized by an NRC license; (2) addressed through the DoD MOU; and (3) are unlicensed
  - If any ranges are listed under Category 3, the DoD and NRC will proceed towards regulatory oversight

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Activities
DoD Actions

- Confirmation Response
  - NRC staff is requesting that DoD perform sufficient internal coordination to confirm or amend the information provided by NRC or provide additional information based on readily available DoD knowledge
  - NRC staff is NOT requesting that the DoD “prove the negative” by surveying all current and former firing ranges for DU

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Activities (NRC Actions)

- Confirm response through inspection (if needed)
  - Follow-up inspections of newly identified unlicensed ranges will be conducted if the NRC staff determines that inspections are needed to confirm the ranges with DU address environmental monitoring, health and safety, and physical security

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Activities (NRC Actions)

- Regulatory oversight of unlicensed DU, as needed
  - If any ranges are listed under Category 3, the NRC staff will determine if the range should be licensed or included in the list under the MOU
  - The responsible licensing organization will coordinate the licensing approach and schedule for licensing Army ranges
  - Permits will be added to MMLs for Navy and Air Force sites

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Schedule

- Ongoing - Begin document reviews for additional sites with DU
- May 31, 2019 - Formal rollout of plan, hold public webinar
- Fall 2019 - Complete document reviews for additional sites with DU
- Spring 2020 - Send letter to DoD
- TBD - Receive DoD response to letter
- TBD - Provide oversight as unlicensed sites are identified

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Thank you!

Questions?

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Abbreviations

AEC- Atomic Energy Commission

CERCLA- Comprehensive Environmental Response Compensation and Liability Act

DoD- Department of Defense

DERP-Defense Environmental Restoration Program

DU- Depleted Uranium

MML- Master Materials License

MOU- Memorandum of Understanding