

Air Force Installation & Mission Support Center



AFCEC – Air Force Civil Engineer Center

Air Force Civil Engineer Center (AFCEC) Radioactive Materials Management Update

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AFCEC/CIBW

2 July 2024

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Classification



This briefing is UNCLASSIFIED and the discussion can go up to UNCLASSIFIED

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Purpose



To provide an update to the NRC on the radioactive waste sites at the former Kelly and McClellan AFBs

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Kelly Air Force Base (AFB)



- **Contaminated soil and abandoned sewer pipe from radium paint shops in Buildings 129 and 133 now beneath Buildings 361 and 365**
- **No exposure pathway due to concrete floors of B/361 and B/365**
- **Deed restrictions and warning signs in place to prevent cutting through floors without Air Force coordination**
- **Activities April 2023 – July 2024**
 - Annual permit audit
 - Annual visual inspection and dose assessment
- **Changes in institutional controls (ICs) and Future Land Use: None**



McClellan AFB AOC 314



- **Radium contamination in soil over parts of 135-acre site**
- **Three operable units (OUs) – South, East, North**
- **Activities April 2023 - July 2024**
 - **Excavation of areas of elevated radiation in OU South with disposal in CU**
 - **Berm between OU South and OUs East and North to prevent runoff from contaminated areas onto excavated area**
 - **New work instruction (WI-004) for OUs East and North**
- **Planned Activities for 2024-2025**
 - **Complete excavation and release of OU South**
 - **Resume excavation of OU East and Ou North**
- **Changes in ICs and Future Land Use: None**

AFRIC – Air Force Radioisotope Committee

CU – Consolidation Unit

ICs – Institutional Controls

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- **Radium contamination in soil in former disposal pit and adjacent debris field**
- **Activities April 2023 - July 2024**
 - **Preparing response to regulator comments on revised work plan and radiation scoping survey**
 - **Submitted permit application to AFRIC**
- **Planned Activities for 2024-2025**
 - **Resolve regulator comments and issue revised work plan**
 - **Excavate waste with disposal in CU**
 - **Final status survey**
 - **Request unrestricted release from the State and AFRIC**
- **Changes in ICs and Future Land Use: None**

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- Radium contamination in soil at site previously used for multiple purposes
- Activities April 2023 - July 2024
 - Excavation with disposal in CU
 - Removal of east berm between site and adjacent seasonal drainage ditch
 - Restoration of berm on eastern side of site
- Planned Activities for 2024-2025
 - Finish excavation with disposal in CU
 - Restoration of berm on northern side of site
 - Final status survey
 - Request unrestricted release from the State and AFRIC
- Changes in ICs and Future Land Use: None

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McClellan AFB CS 069



- Radium contamination in soil in two former disposal pits one of which lies partially beneath the Groundwater Treatment Plant (GWTP)
- Activities April 2023 - July 2024
 - Issue remedial action completion report for CS 069 East and CS 069 West
 - Obtained unrestricted radiological release from the State
 - Prepared work plan for removal of portion of CS 069 West that is under the GWTP
 - Built new GWTP
- Planned Activities for 2024-2025
 - Remove old GWTP
 - Excavate beneath old GWTP, disposal in CU, and final status survey
 - Request unrestricted release from the State and AFRIC
- Changes in ICs and Future Land Use: None

CU – Consolidation Unit

GWTP – Groundwater Treatment Plant

ICs – Institutional Controls

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- **Radium contamination in soil an area of buried waste**
- **Activities April 2023 - July 2024**
 - Continued excavation with disposal in the CU
 - Located edge of contamination
 - Began working with water purveyor to remove active water line that runs through the site
- **Planned Activities for 2024-2025**
 - Remove water line
 - Complete excavation and final status survey
 - Request unrestricted release from the State and AFRIC
- **Changes in ICs and Future Land Use: None**

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- **Designed landfill permitted to accept radium contamination in soil from other sites at McClellan**
- **Activities April 2023 - July 2024**
 - **Accepted soil from multiple McClellan sites**
 - **Amended permit to increase permitted quantity to 6 Ci**
- **Planned Activities for 2024-2025**
 - **Continue to accept soil from McClellan sites**
 - **Modify CU operations and design to allow soil to be stored above ground**
- **Changes in ICs and Future Land Use: None**

CU – Consolidation Unit

GWTP – Groundwater Treatment Plant

ICs – Institutional Controls

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- **Radium contamination in soil in former creek bed now buried beneath about 12 feet of clean fill**
- **Activities April 2023 - July 2024**
 - **Issued contract**
- **Planned Activities for 2024-2025**
 - **Prepare work plans**
 - **Collect pre-excavation sampling data**
 - **Begin excavation with disposal in CU**
- **Changes in ICs and Future Land Use: None**



McClellan AFB PRL 020



- Radium contamination in soil in former disposal pit which lies partially beneath the GWTP
- Activities April 2023 - July 2024
 - Prepared work plan
 - Built new GWTP
- Planned Activities for 2024-2025
 - Remove old GWTP
 - Excavate beneath old GWTP, disposal in CU, and final status survey
 - Request unrestricted release from the State and AFRIC
- Changes in ICs and Future Land Use: None

CU – Consolidation Unit

GWTP – Groundwater Treatment Plant

ICs – Institutional Controls

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McClellan AFB PRL S-038



- Radium contamination in soil at site previously used for multiple purposes
- **Activities April 2023 - July 2024**
 - Issued work plan
 - Stopped work until issues involving working within the airfield close to the runway can be resolved
 - Elevated structure
 - Vehicle access
 - Waterfowl
- **Planned Activities for 2024-2025**
 - Complete excavation and final status survey, and obtain unrestricted release
- **Changes in ICs and Future Land Use: None**

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AFCEC RAM Update



Backup Slides

RAM – Radioactive Materials Permit

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AFCEC CIB Radiation Sites



- Buildings 361 and 365 at Kelly AFB
- Nine sites at McClellan AFB
 - AOC 314
 - CS 052
 - CS 067
 - CS 069
 - CS 069A
 - Consolidation Unit
 - Old Magpie Creek Channel
 - PRL 020
 - PRL S-038

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AFCEC RAM Permits



- **Kelly — TX-00656-05/00**
 - Radium-226 possession
 - Contaminated soil & abandoned pipe beneath Buildings 361 and 365
 - Expires: 31-Jul-2025

- **CU — CA-00728-02/01**
 - Radium-226 possession
 - Engineered landfill
 - Expires: 30-Sep-2028

RAM – Radioactive Materials Permit

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AFCEC RAM Permits (concluded)



- **McClellan Multiple Sites — CA-00366-03/00**
 - Radium-226 possession & cleanup
 - AOC 314, CS 069, CS 069A, OMCC, PRL 020
 - Expires: 31-May-2029

- **CS 067 — CA-00838-00/00**
 - Radium-226 possession & cleanup
 - Expires: 31-Aug-2026

- **PRL S-038 — CA-00833-00/00**
 - Radium-226 possession & cleanup
 - Expires: 31-Jul-2026

- **CS 052 — Requested**

RAM – Radioactive Materials Permit

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