

Decommissioning Funding Plan for Davy Crockett M101 Depleted Uranium Impact Areas at M101 DU-affected Ranges

1. Site-specific cost estimates for decommissioning the Davy Crockett M101 depleted uranium (DU) impact areas at Pohakuloa Training Area and Schofield Barracks have been previously submitted. The NRC accepted those estimates.
2. A generic cost estimate for decommissioning a one-kilometer square Davy Crockett M101 DU impact area (Encl 1) was prepared following regulatory guidance provided in Section A.3.1 of NUREG-1757, *Consolidated Decommissioning Guidance*, Vol. 3, "Financial Assurance, Recordkeeping, and Timeliness," September 2003 (NUREG-1757, Vol. 3).
 - a. The generic cost estimate does not take credit for any salvage value that the Army might realize from the sale of potential assets (for example, recovered materials or decontaminated equipment) during or after decommissioning.
 - b. The generic cost estimate consists of a fixed cost (\$208,706), which is the same for all ranges, and an area-proportional cost (\$3,363,110), which depends on the area of each RCA.
3. The RCA-specific cost estimates, derived from the generic cost estimate, are provided in Encl 2.
4. The description of the means the Army will use to adjust the site-specific cost estimates and associated funding levels periodically over the life of the facilities follows regulatory guidance in Section A.3.2 of NUREG-1757, Vol. 3.
 - a. The Army will make adjustments to site-specific cost estimates for decommissioning that account for inflation, for other changes in the prices of goods and services (for example, disposal cost increases), for changes in facility conditions or operations, and for changes in expected decommissioning procedures.
 - b. The Army has no current plans to change facility conditions or operations at the radiation controlled areas (RCAs) in a way that would require a license amendment application.
5. The certification of financial assurance is in the form of a statement of intent (Encl 2). The statement of intent is the Army's commitment to request and obtain decommissioning funds from its funding body when necessary.
6. A facility description summary, prepared using the guidance in Section A.3.1.1 of NUREG-1757, Vol. 3, follows.

a. *NRC license number and type*: SUC-1593, source material (10 CFR 40)

b. *Types and quantities of materials authorized under the license listed above*: No more than 5600 kilograms (kg) of DU are on all of the ranges, combined. An estimate of the amount on each installation is provided in the amendment application (discussion for Item 5 Radioactive material). If an installation has more than one RCA, the specific amounts of DU in those RCAs are unknown.

c. *Description of how licensed materials are used*: possession only. The licensed material is residual DU remaining from Atomic Energy Commission authorized firing in the 1960s.

d. *Description of facility, including buildings, rooms, grounds, and description of where particular types of materials are used*: active firing and training ranges

(1) The locations of the RCAs at M101 DU-affected Ranges is provided elsewhere (attachment 2) in the amendment application.

(2) Ranges are open areas with no habitable structures but may contain training materials, such as targets and associated supporting materials. None of these structures and materials is likely to be DU-contaminated.

(3) Conventional unexploded ordnance (UXO) is present in the RCAs at all ranges. Because of the presence of UXO, ordnance and explosives safety staff support is required for activities within the RCAs, except for UXO-cleared areas.

(4) The UXO safety requirements significantly reduce radiological survey and remediation productivity. Portions of the RCAs are within “firing fans” of active ranges.

e. *Quantities of materials or waste accumulated before shipping or disposal*: generally none or no more than a few M101 rounds (less than 1 kg of DU).

(1) In accordance with license conditions, DU accumulates for waste shipping and disposal only when the Army detects it by happenstance and retrieves it.

(2) The Department of Defense (DOD) Executive Agent for Low-Level Radioactive Waste (LLRW) Disposal has primary responsibility for disposal of DOD LLRW. To support this, the Executive Agent conducts periodic waste removals from installations worldwide. If the Army collects any DU, the Army will secure and hold it for the next scheduled Executive Agent pick up. The Executive Agent will properly dispose of it in accordance with all applicable Federal and DOD regulations and with all disposal site conditions.

Enclosures

1. Generic cost estimate for decommissioning a M101 DU-affected range
2. Site-specific cost estimates for decommissioning M101 DU-affected ranges
3. Statement of intent

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Enclosure 1. Generic cost estimate for decommissioning a M101 DU-affected range

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Enclosure 2. Site-specific cost estimates for decommissioning M101 DU-affected ranges

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| GARRISON | RADIATION CONTROLLED AREAS (RANGE/TARGET ZONES/IMPACT AREAS) | ESTIMATED AREA (km²) | ESTIMATED COST |
|---|---|--|---------------------------|
| Previously Submitted (estimate includes 25 percent contingency) | | | |
| Hawaii | Pohakuloa Training Area | 8.9 | \$66,864,608 |
| Hawaii | Schofield Barracks | 3.7 | \$42,470,781 |
| Generic (estimate includes 25 percent contingency) | | | |
| Generic 1 km ² fixed cost | | 1.0 | \$260,883 |
| Generic 1 km ² area proportional cost | | 1.0 | \$4,203,888 |
| Sum | | 1.0 | \$4,464,770 |
| Specific M101 DU Impact Areas [estimate includes 25 percent contingency] | | | |
| Fort Knox | Arms Knob | 1.8 | \$7,827,880 |
| Fort Knox | O'Brein, Lawley and Garvin | 1.9 | \$8,248,269 |
| Joint Base Lewis-McChord | Fort Lewis 52, 53, OP8 and OP9 | 3.5 | \$14,974,489 |
| Joint Base Lewis-McChord | Yakima Training Center 14, 17, and 20 | 3.0 | \$12,872,545 |
| Fort Riley | 27A, 27B, and 29 | 2.0 | \$8,668,658 |
| Fort Riley | 18A, B, and C and 27A and B | 1.6 | \$6,987,103 |
| Fort Polk | 33 & 34A | 2.0 | \$8,668,658 |
| Fort Benning | Hook | 1.0 | \$4,464,770 |
| Fort Benning | Patton | 1.0 | \$4,464,770 |
| Fort Benning | Buchanan | 1.0 | \$4,464,770 |
| Fort Benning | Coolidge | 1.0 | \$4,464,770 |
| Fort Benning | Brann | 1.0 | \$4,464,770 |
| Fort Benning | Z-4 (Lae Field) | 1.0 | \$4,464,770 |
| Fort Benning | K-18 | 1.0 | \$4,464,770 |
| Fort Benning | K-15 | 1.0 | \$4,464,770 |
| Fort Benning | Burma Hill | 0.073 | \$567,624 |
| Fort Campbell | OP2/OP3 | 1.0 | \$4,464,770 |
| Fort Bragg | OP-5 | 1.0 | \$4,464,770 |
| Fort Carson | 141 | 1.0 | \$4,464,770 |
| Fort Carson | Titus and Sergeants Roads | 2.8 | \$12,031,768 |
| Fort Carson | Battalion Field Training Area | 1.0 | \$4,464,770 |
| Fort Gordon | E | 1.0 | \$4,464,770 |
| Fort Hood | [no name] | 1.0 | \$4,464,770 |
| Fort Hunter Liggett | C8 | 1.0 | \$4,464,770 |
| Fort Hunter Liggett | B11 | 1.0 | \$4,464,770 |
| Fort Hunter Liggett | B13 | 1.0 | \$4,464,770 |
| Fort Jackson | [no name] | 1.0 | \$4,464,770 |
| Fort Sill | FP 182/West | 1.0 | \$4,464,770 |
| Total for all ranges | | | \$275,013,010 |

Enclosure 3. Statement of intent

[To be prepared for Commanding General's signature in final version]

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