



EDi No. 257



21. U.S. Army, RICC, Corpus Christi Army Depot (CCAD) Decontamination & Decommissioning

22. Year Completed Professional Service:

Year Completed Construction: (if applicable)

308 Crecy Street Corpus Christi, Texas 78419

2009

n/a

Contract Role: [X] Prime Contractor [] Subcontractor

CAGE Code: ID1U3

DUNS Number: 61.680.5073

23 a. Project Owner/Customer:

23 b. Point of Contact Name:

23 c. POC Contact Info.:

U.S. Army Sustainment Command Rock Island Contracting Center Bldgs. 350 & 390 Rock Island, IL 61299-6500

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Key Personnel:

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24. (Include scope, size, and cost) Brief Description of Project and Relevance to this Contract:

Awarded Price: \$178,516.00

Final/Projected Cost: \$657,750.00

Award Date: 03.13.2008

Contract No.: W52P1J-08-D-0035

Period of Performance: 03.13.2008 – 09.30.2009

Final or Projected Schedule: 09.30.2009

Contract Type: [X] Firm Fixed Price [] Cost Reimbursement [] Time and Materials [] Cost Plus Fixed Fee [] Cost Plus Award Fee [] Performance Based

Type of Work Performed: (NAICS + Description)

% of Work Self Performed: 70%

% of Work by Subcontractor: 30%

Contracting Officer (if applicable):

Contracting Agency & Address:

Contracting Officer Contact Info.:

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Background

The Corpus Christi Army Depot (CCAD) is the largest helicopter repair facility in the world consisting of more than 50 buildings encompassing more than 2,000,000 square feet (sq. ft.). Facilities included a number of hangars and associated overhaul and testing facilities centered around Building 8—a 1,000,000 sq. ft. facility, which is the focal point for aircraft overhaul operations.

CCAD and its predecessor, the U.S. Army Aeronautical Depot Maintenance Center, have performed mission-essential depot-level maintenance of army aircraft engines and their associated components since the early 1960s. Some of the aircraft engine components were produced using magnesium-thorium alloys based on the ability of thorium, a naturally occurring radioactive material, to increase the high temperature strength of the associated metal alloys. Although magnesium-thorium alloys containing less than four percent thorium can be possessed without a radioactive



Building 8, Lathe Room located at CCAD.

21. CCAD D&D (continued)

materials license, a source material license is required for any physical, chemical, or metallurgical treatment or processing. As such, CCAD applied for and was issued a Nuclear Regulatory Commission (NRC) Source Material License. This license authorized the performance of those specific treatment and processing operations that were required to perform mission-essential maintenance and overhaul of the magnesium-thorium alloy aircraft engine components. Due to the elimination of magnesium-thorium alloy use, CCAD no longer performs maintenance on magnesium-thorium containing engine components. Therefore, they pursued final cleanup and license termination.

Scope of Work

EDi performed a survey to define the nature and extent of radiological contamination present at CCAD because of NRC licensed maintenance operations. To address contamination, decontamination and decommissioning (D&D) was performed. The site ultimately requested termination of the NRC Source Material License and achieved unrestricted release of all impacted facilities.

D&D activities included removal of building materials, removal of large contaminated equipment, and decontamination of large areas. Waste management activities were required to dispose of the contaminated debris and equipment.

EDi conducted a Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) survey to locate areas with elevated gamma count rates with respect to relative background. Surveys were accomplished by walking over the areas and by manually scanning walls, overhead areas, and floors.

Results of the radiological surveys provided essential information for D&D of impacted structures. The radiological surveys performed achieved data quality objectives and were fully integrated into the final status survey process.

The waste generated during D&D activities was sorted into waste streams, profiled, and designated for appropriate disposal. The wastes were managed in accordance with the approved “Corpus Christi Army Depot Radiological Survey Plan” and wastes were profiled and designated based upon disposal facilities’ waste acceptance criteria (WAC). Waste streams generated included:

- ❑ **Contaminated Machine Oil.** During maintenance activities, the aircraft engine components with magnesium-thorium alloys were machined, milled, and modified using CCAD equipment. During decontamination of this equipment, the contaminated lubricating oil was collected and placed into 5- and 55-gallon drums. Five drums of contaminated oil was generated and transported to U.S. Ecology’s Robbstown facility for proper disposal.
- ❑ **Magnesium-Thorium Helicopter Parts.** Approximately 500 pounds of aircraft engine components with magnesium-thorium alloys including crash parts and engine turbine parts, were separated from other wastes. These parts were designated as low specific activity (LSA-II) and transported on a 4x4 pallet to Impact Services Facility in Oak Ridge, Tennessee, for proper disposal.
- ❑ **Contaminated Lathe.** A lathe measuring 15 by 8 feet and stood 10 feet tall and weighed in at over 21,000 pounds had internal components, which could not be decontaminated and were designated as a surface contaminated object (SCO-I). The equipment was wrapped in plastic and transported to the Impact Services Facility in Oak Ridge, Tennessee, for dismantling, aggressive decontamination, and proper disposal.
- ❑ **Contaminated Debris.** Material and debris generated during D&D that were not decontaminated such as construction materials, ductwork, filters, decontamination supplies, and such were placed into three 20-ft. roll-off containers and transported to the Impact Services Facility in Oak Ridge, Tennessee for proper disposal.



120-ft. roll-off contaminated debris containers onsite at the Corpus Christi Army Depot (CCAD)

25. Firms/Subcontractors involved with this Project:

	(1) Firm Name	(2) City and State	(3) Role
a.	SAIC, Michael Gossner 610.594.4323, voice	180 Gordon Drive Exton, P A 19341	Subcontractor, Phase I