

From: Adams, Steven
To: [Ulrich, Elizabeth](#)
Cc: [Burritt, Arthur](#)
Subject: [External_Sender] Request to NRC for emergency response
Date: Monday, May 21, 2018 7:24:18 PM

Betsy Ullrich, Senior Health Physicist
USNRC Region I
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406

Betsy,

Tetra Tech EC, Inc. is requesting permission from the NRC to expedite approval to implement our radioactive material license 29-31396-01, docket #03038199 at Site 24, at a helicopter crash site near the Naval Air Facility El Centro, California and to provide relief from License condition #18. License condition #18 requires, in part:

EMERGENCY POST CRASH RESPONSE AND INITIAL SITE ASSESSMENT NEAR NAVAL AIR FACILITY EL CENTRO, CALIFORNIA

At least 14 days before initiating activities at temporary job site, the licensee shall notify, in writing, the Regional Administrator, U.S. Nuclear Regulatory Commission, Region I, ATTN: Director, Division of Nuclear Materials Safety, 2100 Renaissance Boulevard, Suite 100, King of Prussia, Pennsylvania 19406. The notification shall include the following information:

- (1) Estimated type, quantity and physical/chemical form(s) of material;
- (2) Specification of site location.
- (3) Description of project activities including Waste management and disposition;
- (4) Estimated project start date and duration; and
- (5) Identification of, and information on how to contact, key project personnel.

BACKGROUND

A project team, consisting of Tetra Tech EC, Incorporated (SES-TECH Atlantic) is performing an emergency post-crash response and initial site assessment near Naval Air Facility in El Centro (NAFEC), CA. A Marine Corps CH-53E helicopter crashed during a training exercise and burned on Bureau of Land Management (BLM) property near NAFEC. The post-crash response site is located at approximately N32.866021 W115.97472, roughly 10 miles northwest of Plaster City, California. The impact area is estimated to be approximately 200 feet by 50 feet and is demarcated by charred soil. All large aircraft debris, including the In-Flight Blade Inspection System (IBIS) have already been cleared by the Marine Corps. However, only five of the seven strontium/yttrium-90 ($^{90}\text{Sr}/\text{Y}$) pins (contained in the IBIS) have been accounted for following three comprehensive radiological scans of the area by the Marine Corp. Each $^{90}\text{Sr}/\text{Y}$ source is in a ceramic pin 0.476-inches long, 0.2-inches in diameter, and contain 0.5 millicuries of $^{90}\text{Sr}/\text{Y}$.

This emergency post-crash response and initial site assessment is being administered by Department

of the Navy Naval Facilities Engineering Command Southwest The objective of this response and initial site assessment is to mitigate potential unacceptable human health risks from exposure to contaminants including petroleum, oil, and lubricants (POL) typical of the CH-53E helicopter. The primary objective of this project is the collection of POL contaminated soil and the remaining aircraft debris and restoration of the area impacted by the crash and post-crash activities. The objective will be met when the site has been cleared of all associated debris, impacted soil has been removed and properly disposed of at a permitted facility, and the site has been restored to pre-crash conditions. The radiological surveillance tasks include soil excavation and stockpiling soil, placing the soil on survey pads in <1-inch lifts, conducting beta surveys using large area gas proportional detectors, and packaging and storing on-site any $^{90}\text{Sr}/\text{Y}$ pins detected. The Marine Corp is

TtEC will be responsible for implementing and providing all controls that are required to support the activities at the post-crash response site. Work for any task, activity, or definable feature of work (DFW) will not begin until the activity hazard analysis (AHA) and the assigned risk assessment code (RAC) for the work activity has been accepted by the Navy Remedial Project Manager (RPM) and is discussed with all personnel engaged in the activity, including TtEC staff, subcontractor(s), and the government on-site representatives at preparatory and initial phase meetings. Preliminary AHAs are available. TtEC and its subcontractors will refine these preliminary AHAs, as necessary, and/or develop new AHAs that will be submitted to the U.S. Department of the Navy (DON) RPM for review/comment prior to beginning each DFW.

Dose rates as a function of distance from a $^{90}\text{Sr}/\text{Y}$ pin have been calculated. Stay times in the near vicinity of a pin, personnel protective equipment to be worn when surveying and handling $^{90}\text{Sr}/\text{Y}$ pins, and handling and storing controls have been defined and are in project specific procedures and project specific radiation safety program AHA.

WORK TASKS UNDER TtEC NRC RML

The work requires licensed controls due to the presence of two $^{90}\text{Sr}/\text{Y}$ pins and the subsequent potential for occupational exposures, both of which are subject to oversight by the Nuclear Regulatory Commission (NRC). Tetra Tech is contractually bound to conduct various activities specific to the NAFEC following the requirements in the Tetra Tech EC, Incorporated (TtEC) NRC Radioactive Materials License (RML) No. 29-31396-01 Amendment 1.

The Tetra Tech EC Inc. scope of work at crash site includes the following activities scheduled from May 29th through June 1, 2018.

- Implementation of TtEC radioactive material license, corporate radiation protection plan and implementing corporate procedures
- Development and approval of standard operating procedures and training and testing of radiological control technicians on all aspects of the license, regulations, and procedures.
- Beta surveys of soil

- Beta surveys of material and equipment prior to being brought into the radiological control area (RCA) and upon exiting the RCA
- Beta surveys of personnel upon exiting the RCA
- Documenting all survey measurements, pictures of pins detected, training and testing, and daily reports
- Segregation of beta impacted soil from non-impacted soil
- Temporary storage of pins and any contaminated material, equipment, and PPE.
- Decontamination of equipment, if needed.
- Estimating and documenting the total $^{90}\text{Sr}/\text{Y}$ activity associated with all contaminated material, equipment, and PPPE

WASTE MANAGEMENT

TtEC is responsible to properly store potentially contaminated $^{90}\text{Sr}/\text{Y}$ pins and material in plastic bags and rigid plastic containers. The Navy shall facilitate the transfer and control of all such materials for transport and disposal. Radioactive Movement Form, or equivalent, for containers assayed as radioactive and Commercial Commodity Transport Form, or equivalent, for non-radioactive shipments. Form information includes but is not limited to:

1. A brief description of the material involved
2. An inventory of packages to include total number of packages and contents
3. A label identifying the maximum dose rate and location, and a $^{90}\text{Sr}/\text{Y}$ curie content approximation for the package. Note that the Marine Corp and/or their contractor provides all forms and provides the final curie content for the package based on the final weight determination and radioisotopic measurements
4. Date, time, and signature of person(s) completing the transfer

TtEC will notify the Navy project manager when a LLRW container in their custody is full, request that the LLRW container be moved to their LLRW contractor staging area, and provide the Navy project manager, at the time of transfer, the corresponding transport form. Container weights will be determined by the Navy contractor.

The Navy contractor shall move filled LLRW containers from TtEC controlled areas to the contractor controlled staging/storage area for preparation for off-site disposal. LLRW containers are to be filled as full as practical up to a maximum net weight defined by the Navy contractor. LLRW containers may be returned to the generator for weight adjustment if deemed necessary by the Navy contractor.

The Navy contractor will reference internal TtEC authorized procedures and work instructions when

coordinating the transfer of LLRW containers leaving a TtEC radiologically controlled area. Using TtEC approved protocols detailed in the project specific SOPs TtEC will initiate RCA release surveys of the corresponding LLRW container/ truck, and monitor the assigned driver before the truck leaves a TtEC site. In conjunction with the exit survey, the Navy contractor will complete a visual assessment for removable contaminants on the exterior of the LLRW container itself.

If you have any questions or require any additional information please contact me at (702) 521-4549.

Steve

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