

White Paper
On
Kazakhstan NNC Radiation Materials Issue

Introduction

During the CTR and Seismic Calibration efforts at the Republic of Korea/NNC, several issues were identified which raised concern about the potential availability of radioactive material for terrorist activities. The openness of the Semi Palatinsk Test Site, the activities of local citizens at the test site salvaging material for resale, makes the issue of theft of radiation material very important.

Issues

Three issues have been identified at the Semi Palatinsk Test Site:

Issue 1. The availability of the large explosion containment containers referred to as KOLBA's which were used for fully contained hydronuclear, HPEOS and/or FBR testing and would contain available radioactive material.

Issue 2. The use of a simplified uncontained shallow subsurface testing for HPEOS or hydronuclear which would contain available radioactive material (the P-7 TOR Test Site).

Issue 3. A test area in which it is rumored that many shallow subsurface tests (approx 100) were conducted in an organized grid. These tests supposedly contained varying amounts of radioactive material which is still available if excavated carefully.

Scope

The following tasks were deemed as necessary in order to identify and access the radioactive material. It was assumed in these tasks that considerable excavation and/or construction was necessary, but does not include characterizing, removing and containerizing the radioactive material.

Task 1. Locate and provide the necessary access to all KOLBA containers to allow trained personnel to retrieve the Material which may be in the containers. Preliminary information, three (3), located at Tunnel 200m; one (1), located in a Sarcophagus; and one (1) at a reactor site. (The U.S. Government proposes to train NNC personnel to perform the material retrieval under the supervision of U. S. personnel.) (Est ROM Cost \$400K)

Task 2. Locate the P-7 (TOR) locations where tests occurred. Excavate the Material at each area to allow trained personnel to retrieve and place the material in containers for permanent storage. Preliminary information, three sites exist, the Material is buried 3 to 5 meters. (Est ROM Cost \$100K)

Task 3. Locate the ACTON BERLY test grid. Identify the sites where the material is buried. Excavate each site to allow trained personnel to retrieve and place the material in containers for permanent storage. Preliminary information, approximately 100 sites exist, located in a 4 meter by 4 meter grid, the Material is buried approximately 6 meters. (Est ROM Costs \$3,500K)

The above estimates should include personnel, material, and equipment costs and the estimated time necessary to accomplish each task. And it should also include a total dollar estimate.

DTRA will provide oversight, training and specialized personnel safety equipment and material to National Nuclear Center to accomplish each task. The identification, characterization, containerization, removal, storage and/or elimination is not included in these estimates.

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