Drilling to Obtain Radioactive Samples: Concept of Operations and Equipment

Ward Hawkins

Vienna, Austria
June 2015

The views expressed here do not necessarily reflect the views of the United States Government, the United States Department of Energy or the Los Alamos National Laboratory.
In the course of the OSI, drilling for samples can be proposed.

Topics

- Drilling site selection
- Requirements, Regulations, Permits
- Mobilization
- Site layout and operational plans including Health, Safety, and Environment
- Drilling and sampling equipment and personnel for rapid deployment
Site Selection

- Triggering event location and data
- OSI information
- Sampling target is identified and characterized
Health and Safety is paramount; and, the Inspected State Party has an “obligation not to impede the ability of the inspection team to move within the inspection area and to carry out inspection activities in accordance with this Treaty and the Protocol.” (CTBT, Article IV, paragraph 57e).
Drilling Site Preparations

Drilling Pad
- Size
- Stability
- Geology
- Proximity to target

The Inspection Team can request a 70 day extension of the OSI.
Equipment Mobilization

Mobile Rig

Transport to Inspected State

Site Layout

Ancillary Equipment

Arrangements among Contractor, Technical Secretariat, and Inspected State Party.
Drilling and Sampling Equipment and Personnel for Rapid Deployment

**Equipment**
- Industry Standard
- Depth Capable
- Portable
- Steering/Directional
- Minimal Footprint
- Self Contained
- Experienced/Well-Trained Personnel
- Site restoration

**Contractual “standing arrangements” for rig and crew?**
CTBT On-Site Inspection, drilling for samples is a complex process.

Many of the issues that need to be addressed are identified in the “Report on OSI Expert Meeting on Drilling and Subsoil Sampling”
CTBT/PTS/INF.1166, 30 January 2012