**Best Practice Title**: Jobsite Qualification Program for Subsurface Investigation Equipment Operators

**Facility**: Savannah River Site

**Point of Contact**: James R. Luhring, 803-557-4795, james.luhring@srs.gov

**Brief Description of Best Practice**: An equipment operator qualification program was developed and implemented at the jobsite. It consists of formal training on specific pieces of locating equipment, including a job performance module. One Standard was established for soils and one for concrete. Each Standard contains, as a minimum:

- Position Identification (penetrating radar operator I or II...)
- Entry Requirements (education, experience...)
- Medical Requirements (minimum site health req’ts., drug testing, fitness for duty...)
- Security Clearances (if applicable)
- Training Requirements (classroom training modules for each specific piece of equipment)
- Evaluation Techniques (task qualified job performance modules for each specific piece of equipment)
- Qualification Process (details process, including qualification cards signed by designated members of jobsite management)
- Re-Qualification Process (identifies requirements, re-qual. frequency is 3 years)

A test wall was built, using discarded concrete from site projects. Soil test plots were located, where known commodities were surveyed and plotted. These were the locations used for the job performance evaluation portions of the Standards. They have also been used when operator questions arise, for re-qualifications, and for periodic assessments of the subsurface investigation program.

Once the individual completes the requirements of the Standard, a Qualification Card is completed, verifying they meet the qualification Standard, and documentation supporting that qualification is filed in the jobsite Training Records. The individual is then allowed to operate the specific locating equipment listed on their individual Standards/Qualification Cards.

**Why the best practice was used**: We established a jobsite qualification program to document classroom training, and job performance measures (task evaluations) for each individual equipment operator for specific pieces of equipment (manufacturers/models). To ensure that each subsurface investigation was performed by individuals that were trained to the specifications and limitations of the specific locating equipment being used. And that individuals operating that equipment have demonstrated proficiency in actual field conditions at the jobsite where it is utilized. To help ensure that management expectations for locating equipment operations are applied in a consistent manner.
What are the benefits of the best practice: Each individual equipment operator understands the specifications and limitations of each piece of locating equipment he/she is qualified/allowed to operate. The subsurface investigations are performed in a consistent manner. By qualifying locator operators to specific equipment, the potential for missing buried commodities during subsurface investigations due to operators being unfamiliar with certain functions or limitations of specific equipment models is minimized. The qualification program documents individual qualifications to the knowledge and performance standards established for each individual piece of locating equipment.

What problems/issues were associated with the best practice: Prior to the development of this qualification program, the training and qualification of locator equipment operators was controlled within an individual work group at the jobsite. The operators performed their functions well, but there was no formal qualification program to document performance to a standard. Some operators attended specific equipment manufacturer training, at locations chosen by the manufacturers. Some received onsite manufacturer representative instructions on the operation of their equipment. Others were trained by those operators, and self-study programs to specific equipment operating manuals.

How the success of the best practice was measured: The qualification program includes both knowledge and performance modules. The individual locator operator is qualified to an individual Standard, so that standard can be retrieved and their qualification to a specific piece of locating equipment verified. The re-qualification requires the individual operator to demonstrate proficiency on a regular basis. The individual’s qualification standard(s) is maintained in the jobsite training/qualification database, so it has been accessible for task-based observations, management-focused observations or any other internal or external assessment initiative.