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## Lessons Learned from Independent Verification Activities

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### Challenge

The Department of Energy clears property from radiological control after the property has been demonstrated to meet the Department's stringent radiation protection requirements. Radiological surveys are used to demonstrate compliance with the requirements. Independent verification (IV) activities are conducted by an independent third party as a quality check on radiological surveys procedures and practices. The Oak Ridge Institute for Science and Education (ORISE) performs independent verification for the Department. In this lessons learned report, ORISE summarizes their experiences and identifies areas for improvement in the conduct of radiological surveys of real property.

### Technical Solution

ORISE has conducted independent verification activities at numerous Departmental facilities and has identified the best practices in the improvement of radiological surveys and the avoidance of radiological survey problems. These include:

- The early and clear identification of authorized limits or other radiological release criteria;
- The early development of radiological survey plans for demonstrating compliance with the authorized limits; and
- The early engagement of independent verification personnel, enabling problems to be addressed early without significant impact to budget and schedule.



### Tech Accomplishment

The report identifies ORISE experiences at nine different DOE closure sites where decontamination and decommissioning (D&D) activities of buildings and /or soils had been completed.

### Impact

The Lessons Learned from Independent Verification will assist field sites, field management, and Federal Project Directors in identifying best practices and avoiding radiological survey problems; and in providing a higher quality of radiological survey performance to ensure the successful completion of D&D projects.

#### Site Project & Identifier

Oak Ridge Institute for Science and Education –  
Independent Verification Lessons Learned

#### Tech Stage: Demonstration

IV – performed at nine DOE sites from 2004 to 2008

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**Impact and Features**

- Identifies the best practices for the organization of radiological surveys
- Identifies problems encountered in specific situations
- Radiological survey training is also available from ORISE
- Early and proper conduct of independent verification surveys can avoid budget and schedule issues late in the project life

**Vendor Info:****Independent Verification**

Sarah J. Roberts  
Oak Ridge Institute for Science  
and Education  
PO Box 117  
Oak Ridge, TN 37831  
865-241-8893

*Technology Name*

- Independent Verification
- Radiological Characterization Surveys
- Radioanalytical Laboratory
- Radiological Survey Training

**Federal End User Information**

W. Alexander Williams  
EM-23/Cloverleaf Building  
U.S. Department of Energy  
1000 independence Ave., SW  
Washington, D.C. 20585  
301-903-8149

**Web Links:** <http://www.ornl.gov/busops/ivhp/>

Challenge Category	Tech Solution Category
<ul style="list-style-type: none"><li>• Radiological surveys</li><li>• Radiological Clearance (Release)</li><li>• Independent Verification</li><li>• Best practices</li><li>• Lessons Learned</li></ul>	<ul style="list-style-type: none"><li>• Characterization</li><li>• Radiological survey</li><li>• Independent Verification</li></ul>