



Successfully Executing Integrated Safety Management within a Public-Private Partnership

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Technology Transfer

- The U.S. Department of Energy's (DOE's) national laboratories represent a remarkable collection of scientific facilities, equipment, and researchers
- Among DOE's missions is the effort to make new technologies available for economic growth through technology commercialization
- At Oak Ridge National Laboratory (ORNL), the Oak Ridge Science and Technology Park (S&T Park) will facilitate new collaborations, forming new pathways to move cutting-edge technologies into the marketplace



OAK RIDGE NATIONAL LABORATORY



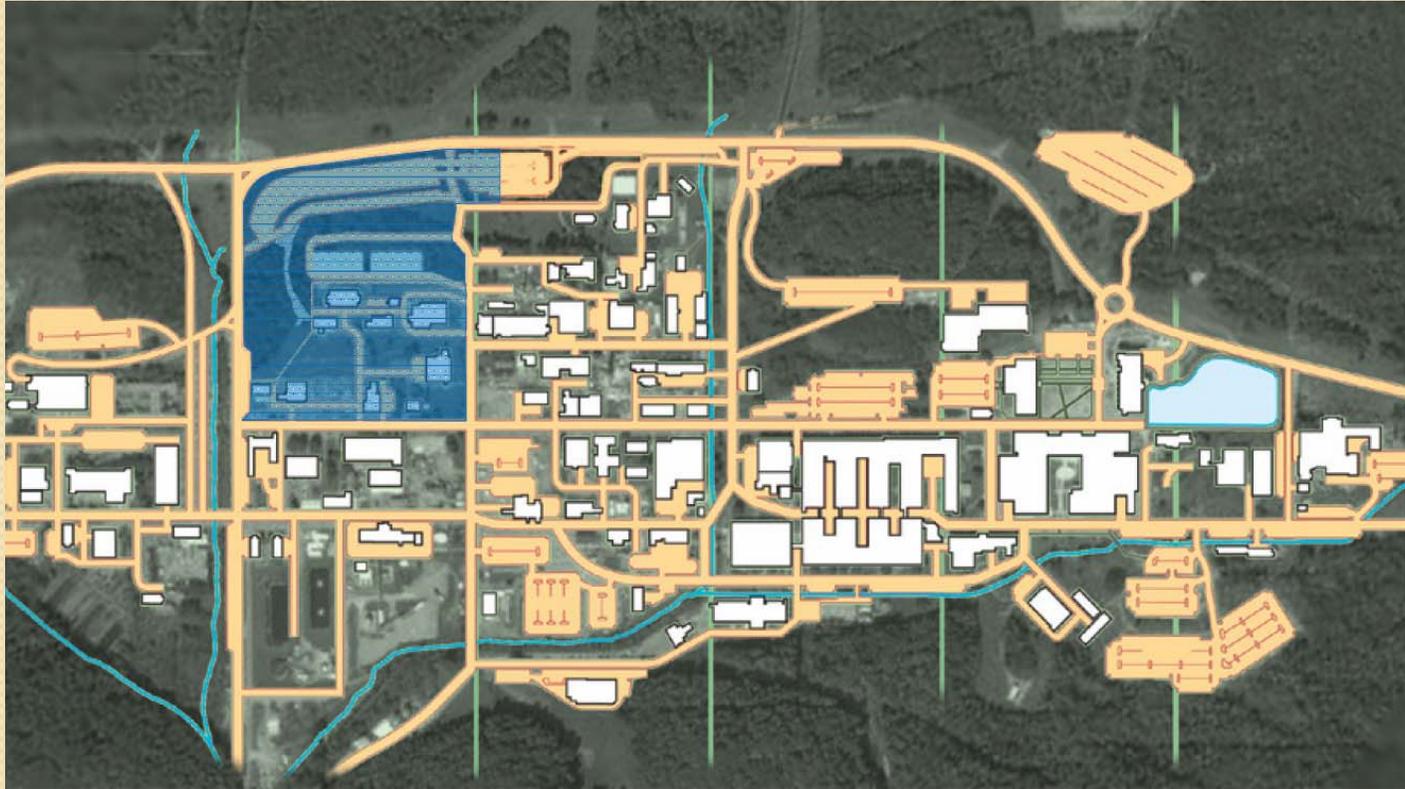
ORNL is DOE's largest science and energy laboratory. UT-Battelle, the Management and Operating contractor, is a partnership between the University of Tennessee and Battelle.

Science and Technology Park

- The Oak Ridge S&T Park is the first privately developed park within the campus of a national laboratory
- To date, ~ 12 acres of land and one building have been leased to the Community Reuse Organization of East Tennessee (CROET) for development and/or reuse
 - CROET's mission is to assist in creating quality jobs in the east Tennessee region by using underutilized DOE assets



OAK RIDGE S&T PARK



DOE will lease a total of ~40 acres to CROET, which will sublease parcels for development.

Science and Technology Park

- When built out, the S&T Park will support up to 500,000 square feet of space for multiple uses including office space, laboratories, etc.
- The park will be part of a campus environment consistent with ORNL's modernization efforts
 - ORNL continues to modernize and/or replace Manhattan and Cold War era facilities
- Because the property is leased, the activities are not regulated by DOE
 - The lease requires compliance with local, state and federal regulations



S&T PARK FITS WITH ORNL MODERNIZATION EFFORTS



Phase I of the S&T Park is now complete and serves as home to Pro2Serve's National Energy Security Center and to the Halcyon Commercialization Center





PRO2SERVE'S NATIONAL ENERGY SECURITY CENTER

Professional Project Services, Inc. (Pro2Serve®) provides technical and engineering services that support the infrastructures of government and private industry.

HALCYON'S COMMERCIALIZATION CENTER

Halcyon, LLC, a subsidiary of CROET, leases Building 2033 and uses it as a multi-tenant facility for technology transfer purposes.



Fundamental Differences

- Halcyon, LLC is a public sector company versus a DOE contractor
- S&T Park property is leased versus government furnished
- DOE Safety Advocate oversees activities on the S&T Park versus a DOE Facility Representative
- Tenants are commercial contractors versus a DOE Management & Operations (M&O) contractor



Unique Aspects of the S&T Park

- Located on the campus of a National Laboratory
 - Multiple occupants are located at ORNL including contractors other than the M&O, as well as S&T Park tenants
 - No direct contractual link between contractors and private-sector tenants of the S&T Park
 - Integration of private sector with M&O contractor services such as:
 - ✓ Laboratory Shift Superintendent
 - ✓ ORNL Fire Department
 - ✓ Safeguards & Security Division



Unique Aspects of the S&T Park (Cont.)

- Legal and Other Requirements flow through leases and subleases to tenants
 - Unique requirements are identified such as DOE “right-of- access”
- Tenants are regulated through permits, licenses, etc. which are issued by the state or another Federal Agency
- *DEAR Clause* 970.5223-1 is not a requirement for lessees (and sublease holders)
 - Tenants implement client ISMSs and a Corporate ES&H Integrated Programs

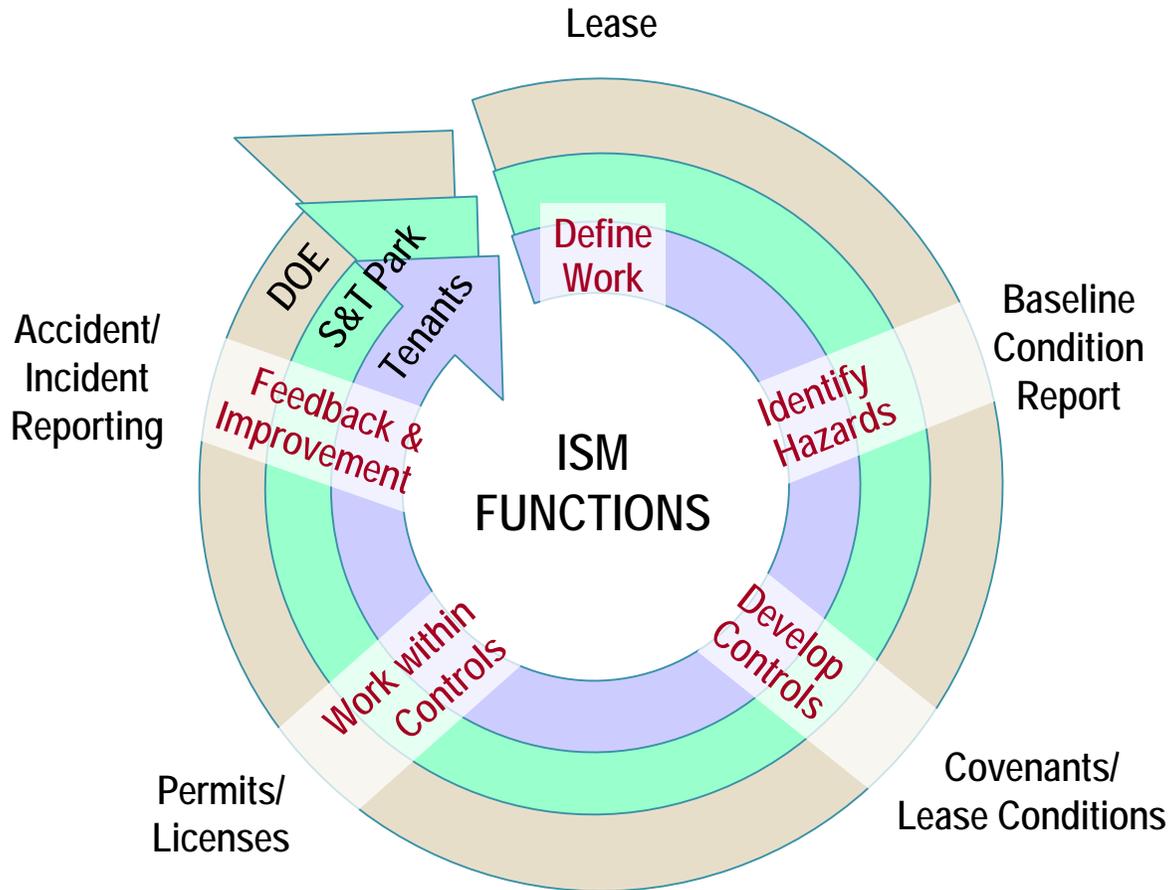


Public/Private Challenges Align with ISM Core Functions

- **Define Work**
 - Sublease holders conduct a variety of work
 - Work Control is not necessarily managed in the same way for private-sector work
- **Hazard Identification**
 - Lease requires notification of hazardous/radioactive materials, but it does not restrict hazards
- **Hazard Control**
 - Controls are guided by an existing Federal Facility Agreement (FFA), covenants, and lease conditions and restrictions
- **Work Performance**
 - Work is performed in accordance with permits, tenant Project Execution Plans, and possibly Activity Hazard Assessments
- **Feedback and Improvement**
 - Mechanisms not specified



ISM Core Functions



ISM Core Functions (Cont.)

Defining Work?

- DOE/ORNL
 - Mission
 - Management System Description
 - Contracts
- S&T Park
 - Lease
- Tenants (e.g., Pro2Serve)
 - Sublease
 - Contracts
 - Project Execution Plans
 - Activity Hazard Assessments

Defining Hazards?

- DOE/ORNL
 - CERCLA Documents
- S&T Park
 - Lease
 - Baseline Condition Report
- Tenants (e.g., Pro2Serve)
 - Sublease
 - Contracts (clients)
 - Project Execution Plans
 - Activity Hazard Assessments



ISM Core Functions (Cont.)

Defining Controls?

- DOE/ORNL
 - FFA
 - CERCLA Records of Decision
 - Change Control Board
- S&T Park
 - Lease
 - Other site-specific requirements
- Tenants (e.g., Pro2Serve)
 - Permits/Licenses
 - Project Execution Plans
 - Activity Hazard Assessments

Work Within Controls?

- DOE/ORNL
 - Right-of-access
 - DOE Safety Advocate
- S&T Park
 - Lease
- Tenants (e.g., Pro2Serve)
 - TDEC/TOSHA
 - Project Execution Plans
 - Activity Hazard Assessments



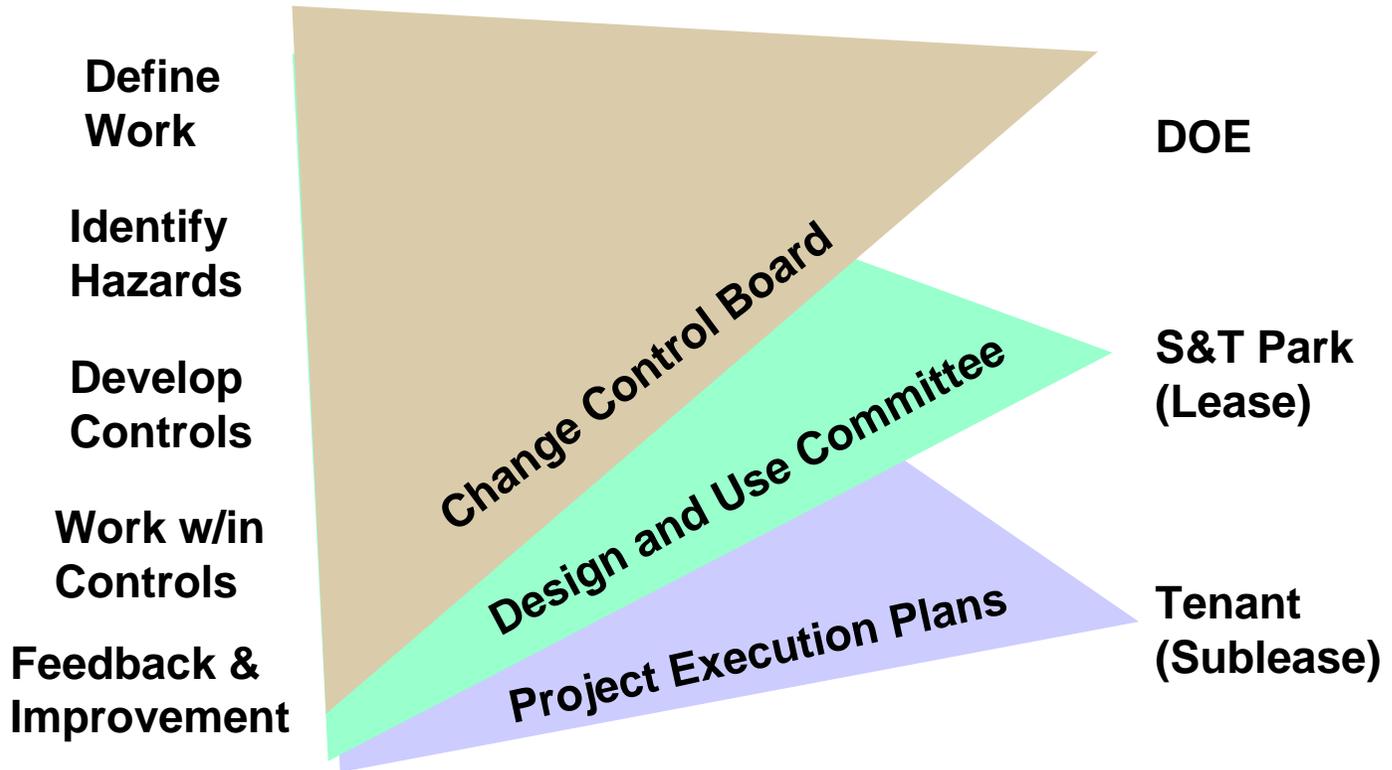
ISM Core Functions (Cont.)

Feedback Mechanisms?

- Accident/incident Notification
- Site Integration Meetings (e.g., Security, Safety)
- Drill Participation with ORNL



ISM at Three Levels



Lessons Learned - Successes

- No Recordable or Lost Time Accidents During Construction and/or Modifications of S&T Park Facilities
 - Meetings held prior to construction activities
 - DOE Safety Advocate provided oversight
- Efficient Reuse of Excavated Materials
 - DOE policy decision to keep excavated soils on the Oak Ridge Reservation
 - Pro2Serve identified a location to dispose of the material; it was used by the NNSA Training Facility
- Communication with ORNL Emergency Services
 - Tours provided to ORNL Fire Department and Laboratory Shift Superintendent personnel



Lessons Learned - Challenges

- Early Definition of Scope
 - Understanding site characteristics and restrictions
 - Agreement on common mission and goals
- Site Access & Control
 - Badging
 - Training
 - Visitor Processing
- Site Services
 - Utilities
 - Incident/Emergency Response
 - Mail delivery



Looking to the Future

There is still more to do to implement ISM at the S&T Park...

- Complete development of a Management System for the S&T Park tenants which will include finalizing Business Practices to address ISM Core Functions
 - Hazard Identification of tenant activities
 - Identification of controls, if required
 - Establishment of additional feedback mechanisms



Thanks for Your Attention

For more information:

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