DOE's Oak Ridge Reservation (ORR) site contractor safely addressing the unique challenges associated with cleaning up the ORR sites.
East Tennessee Technology Park

- Formerly K-25 Plant

- DOE Environmental Management Contractors at ETTP
  - URS/CH2M Oak Ridge (UCOR)
  - Bechtel Jacobs Company LLC (BJC)

More than 9 million consecutive hours without a lost workday away case

Safely Delivering DOE’s Vision for the East Tennessee Technology Park Mission
East Tennessee Technology Park

K-33 (foreground) and K-31 before demolition

Safely Delivering DOE’s Vision for the East Tennessee Technology Park Mission
Oak Ridge National Laboratory

- Research and Development
- “Excess” facilities under Surveillance and Maintenance program
- Liquid/Gaseous Waste Operations
- Waste Management

A worker in 3038 uses a glove box to package and dispose of waste.

Process Water Facility
Y-12 National Security Complex

- Environmental Management Waste Management Facility (EMWMF)

Soil
Sludge
Sediments
Solid Waste
Vegetation
Debris
PPE
Scrap Equipment

Safely Delivering DOE’s Vision for the East Tennessee Technology Park Mission
A worker performing asbestos abatement

Abandoned tanks at the Y-12 Complex
Pursuit of IH Excellence

- Industrial Hygiene Work Permits
- IH Continuing Education Monthly Series
- Qualification Program for IH Technician Instrumentation Performance Demonstration Checklist
- IH Database Cority IH Suite (formerly Medgate)
- Ergonomics WOW Session
- Temperature and HEART Card
- POLAR Heart Rate Real-Time Monitoring
Industrial Hygiene Work Permit (IHWP)

- Identify and thoroughly analyze occupational health hazard(s)
- Documents required control set(s) in a manner that ensure the workers and their supporting IH Technician have a clear understanding of the
  - Chemical hazard
  - Threat it poses
  - Controls, monitoring, exposure limits, and
  - Actions should the hazard concentrations exceed defined thresholds.
Industrial Hygiene Work Permit

IH related hazards identification

Exposure Assessment

Control set Selection

Monitoring/sampling requirements

Alarm response instructions (if applicable)
IH/IH Technician Continuing Training

- Monthly continuing education sessions
- Vendors
- Local IH Subject Matter Experts
- Presenters from IH Professional staff
IH Technician Qualification Program

- IHT Qualification Cards – completion of assigned Required Training and Required Reading Document
  - IH Senior Technician
  - IH Junior Technician
- Instrumentation Performance Demonstration Checklist
IH Database Cority IH Suite

- Manage quantitative and qualitative exposure assessment data
- Monitoring plans based on exposure assessments
- Track progress of monitoring activities against pre-defined targets
- Electronic routing
- Access to an expansive OEL library
Work on Wellness (WOW) Sessions

- **Office Ergonomic WOW**
  - New office move affected ~300 personnel
  - Ideal arrangement of computer and other workstations
  - Use and application of safe body mechanics while performing work duties
Physiological Temperature Measurements

Record physiological monitoring
• Temperature and HEARTCard
• HEARTCard
# Worker Temperature and Heart Cards

**Worker Sign-in**

Your initials indicate that you understand PMO0-813a, Temperature Extreme, and shall perform and document heart rate monitoring in accordance with procedures.

<table>
<thead>
<tr>
<th>Print Name</th>
<th>Check if Accomplished</th>
<th>Initials</th>
</tr>
</thead>
</table>

**Heart Rate Monitoring**

Handheld completed forms with duration. Following the completion of HEART Cards shall be destroyed.

<table>
<thead>
<tr>
<th>Badge Number</th>
<th>Baseline Heart Rate</th>
<th>Time In</th>
<th>Time Out</th>
<th>Heart Rate</th>
</tr>
</thead>
</table>

**Heart Rate Monitoring**

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<table>
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</table>

**HEART Card**

<table>
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<th>Temperature Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
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</tbody>
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**Heart Rate Monitoring**

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</table>

**Temp and HEART Card**

Safely Delivering DOE's Vision for the East Tennessee Technology Park Mission
Heat Stress - Real-Time Worker Heart Rate Monitoring

- Telemetric heart rate monitoring POLAR H7 sensor and Ipads “real-time” heart rate data
  - No HEARTcard needed

The two individuals in red and approaching 100% of their heart rate max would need to be notified to slow down or take a brief pause. They are in no danger at this point, and pausing them will ensure they don’t reach a dangerous level.
Contact Information

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Questions/Feedback?