

Issued by
WTCC

BNI-WTP
Kyle C. Baer
2435 Stevens Center Place
Richland, WA 99354
MSIN14-2B

DN:26030-LTR-18-00008
February 14, 2018

Dear Mr. Baer:

CONTRACT NO. 24590-CM-HC1-HCHC-00001- TRANSMITTAL OF HANFORD TANK WASTE TREATMENT AND IMMOBLIZATION PLANT VOLUNTARY PROTECTION PROGRAM (VPP) ANNUAL REPORT – SUPERSEDES 26030-LTR-18-00025

- References: 1) U.S. Department of Energy Voluntary Protection Program, Part 1: Program Elements, Section I.E.1 (DOE/EH-0433)
2) Letter, 26030-LTR-18-00025, R.H. Holmes (WTCC) to K.D. Irwin (WTP-BNI), “Hanford Tank Waste Treatment and Immobilization Plan Voluntary Protection Program 2017 Annual Report,” dated 31 January 2018

Enclosed for transmittal to DOE-ORP is the 2017 Voluntary Protection Program (VPP) annual report for the Hanford Tank Waste Treatment and Immobilization Project. The report has been compiled in accordance with the Reference 1 DOE VPP guidelines and incorporates clarifications to the Reference 2 submittal coordinated between WTP-BNI ES&H Manager, Phil Worley and Keith Lucken, WTCC ES&H Manager.

Should you have any technical questions, please contact Keith Lucken at (509) 373-8375. Contractual questions may be addressed to the undersigned at (509) 373-7203.

Sincerely,



Elizabeth Winkelman
Contracts Manager, WTCC

WKL/eaw

Attachment: 2017 Voluntary Protection Program (VPP) Annual Report – Hanford Tank Waste Treatment and Immobilization Plant Project

cc:

Booth, S.E.	WTCC	MS10-I
Curcio, J.P.	WTCC	MS10-A
Drexel, G.D.	WTCC	MS10-I
Hissong, T.L.	WTP	MS10-A
Holmes, R.L.	WTCC	MS10-I
Hydrick, D.F.	WTCC	MS10-I
Irwin, K.D. w/a	WTP	MS14-3C
Lucken, W.K. w/a	WTCC	MS10-A
Sax, S.M.	WTCC	MS10-I
Wells, K.R.	WTCC	MS10-I
Worley, P.D. w/a	WTP	MS14-2A
WTCC Document Control w/a	WTCC	MS10-A



Concurrence Sheet

DN: 26030-LTR-18-00008

WTP-Directed
Due Date or
N/A

12 February 2018

Title	Name	Concurrence Required	Initials	Date
Originator <i>Initial and date this line to confirm the document owner has reviewed the document for technical accuracy and impacted personnel have reviewed the document.</i>		<input type="checkbox"/>		
Line Manager		<input type="checkbox"/>		
President and General Manager	R. A. Holmes	<input type="checkbox"/>		
Deputy General Manager	S. M. Sax	<input type="checkbox"/>		
Mission Readiness Manager	S. E. Booth	<input type="checkbox"/>		
Commissioning Manager	M. R. Hamlett	<input type="checkbox"/>		
CAS/ Readiness Assurance Manager	W. W. Gay	<input type="checkbox"/>		
Business Services Manager	J. L. Denning	<input type="checkbox"/>		
Human Resources Manager	C. H. Krumm	<input type="checkbox"/>		
Communications Manager	T. A. Nelson	<input type="checkbox"/>		
Labor Relations Manager	V. Serna	<input checked="" type="checkbox"/>		
Contract Manager	E. A. Winkelman	<input checked="" type="checkbox"/>	ESW	2/12/18
DFLAW Completion Manager	G. D. Drexel	<input type="checkbox"/>		
Construction Manager	D. F. Hydrick	<input type="checkbox"/>		
Start-up Director	R. C. Tyrie	<input type="checkbox"/>		
System/Facility Transition Manager	G. K. McCain	<input type="checkbox"/>		
LAW/EMF Area Completion Manager	P. A. Porcaro	<input type="checkbox"/>		
BOF/LAB Area Completion Manager	S. A Miller	<input type="checkbox"/>		
Plant Management	K. R. Wells	<input type="checkbox"/>		
Facility Manager	J. P. Curcio	<input type="checkbox"/>		
Maintenance Manager	R. C. Dikeman	<input type="checkbox"/>		
Plant Engineering Manager	M. S. Miller	<input type="checkbox"/>		
Training Manager	H. H. Schuette	<input type="checkbox"/>		
Project Controls Manager	J. S. Arnold	<input type="checkbox"/>		
Quality Manager (Acting)	M. J. Sheridan	<input type="checkbox"/>		
Innovation	P. K. Kilroy	<input type="checkbox"/>		
General Counsel	S. B. Fowler	<input type="checkbox"/>		
ES&H Manager	W. K. Lucken	<input checked="" type="checkbox"/>	See attached email	
Chief Financial Officer	D. Barbee	<input type="checkbox"/>		
Additional Reviewers	Name		Initials	Date
Title				
N/A if None				

Winkelman, Elizabeth (WTCC)

From: Lucken, William (WTCC)
Sent: Monday, February 12, 2018 10:51 AM
To: Winkelman, Elizabeth (WTCC)
Subject: RE: ACTION: Concur, VPP Letter

I concur. Thank you.

W. Keith Lucken
ESH Manager
Hanford Waste Treatment and Immobilization Plant
Waste Treatment Completion Company, LLC.
Cell: (509) 851-7004
Office: (509) 373-8375



ONE COMPANY. ONE TEAM. ONE MISSION.

From: Winkelman, Elizabeth (WTCC)
Sent: Monday, February 12, 2018 9:39 AM
To: Lucken, William (WTCC) <wklucken@bechtel.com>
Cc: Douglass, Laura (WTCC) <LDUGLAS@bechtel.com>
Subject: ACTION: Concur, VPP Letter
Importance: High

Keith,

Please review the attached and, if acceptable, provide your concurrence to send the letter. [a return email indicating "concur" is just fine]



2017 VOLUNTARY PROTECTION PROGRAM ANNUAL REPORT - HANFORD TANK WASTE TREATMENT AND IMMOBILIZATION PLANT PROJECT

The 2017 annual evaluation on the effectiveness of the Waste Treatment Completion Company's VPP is presented in this report. The scope of this evaluation is to assess WTCC's VPP and its programmatic elements.

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Executive Summary

The Voluntary Protection Program (VPP) at the Hanford Tank Waste Treatment and Immobilization Plant (WTP) Project is actively engaging management and workers to ensure and continuously improve worker safety and health. This is supported by the findings of the Voluntary Protection Program (VPP) self-assessment conducted in October 2017, which concluded that the opportunities for improvement identified by the U.S. Department of Energy Headquarters (DOE-HQ) VPP team during its 2016 onsite assessment were adequately addressed by implementation of the 2017 Waste Treatment Completion Company (WTCC) VPP Improvement Plan.

WTCC is continuing to make improvements to the program and the feedback from over 200 interviews has confirmed that the implementation of the VPP elements are consistently demonstrated and understood by WTCC employees.

The WTP Project site continues to report occupational injury and illness rates well below the Bureau of Labor Statistics' reported rates for "Heavy and Civil Engineering/Construction." This is one of many objective indicators that the VPP Program is actively working to protect worker safety and health at the WTP Project.

Facts at a Glance

- **Company:** Waste Treatment Completion Company, LLC
- **Date of Company Inception:** March 27, 2017
- **Number of Employees:** 1,678 employees (approximately)
- **Total Hours Worked in 2017:** 2,548,075

WTCC 2017 Injury/Illness Rates Compared to CY 2016 U.S. Department of Labor Bureau of Labor Statistics (BLS) Code¹ Rates for Heavy and Civil Engineering/Construction:

	Total Recordable Injury/Illness (TRC)		Injuries/Illnesses Requiring Days Away from Work, Work Restrictions, or Transfer (DART)		Injuries/Illnesses Requiring Days Away from Work (DAFW)	
	Cases	Rate	Cases	Rate	Cases	Rate
Waste Treatment Completion Company ²	10	0.78	7	0.55	1	0.08
BLS Case Rates (NAICS Code 237 [CY 2016])	N/A	2.8	N/A	1.7	N/A	1.0

Note: Additional WTP Project injury/illness rate information can be found in section 5.

¹ United States Bureau of Labor Statistics (BLS) are classified in accordance with the North American Industry Classification System (NAICS). WTCC is classified as Sector 23, Construction, 237, *Heavy and Civil Engineering Construction*.

² WTCC became active on March 27, 2017. This is data from March 27 – December 31, 2017.

Acronyms

AST	Area Safety Team	NAICS	North American Industry Classification System
AJHA	assisted job hazard analysis	ORP	DOE Office of River Protection
BBS	behavior based safety	OSHA	Occupational Safety and Health Administration
BCSP	Board of Certified Safety Professionals	PPE	personal protective equipment
BLS	Bureau of Labor Statistics	PT	Pre-Treatment Facility
BNI	Bechtel National, Inc.	SCWE	Safety Conscious Work Environment
BOF	Balance of Facilities	SDS	safety data sheet
CCN	correspondence control number	SME	subject matter expert
CY	calendar year	SSW	Senior Supervisory Watch
DAFW	Days Away from Work	STARRT	Safety Task Analysis and Risk Reduction Talk
DART	Days Away, Restricted, or Transferred	STS	Safety Trained Supervisor
DFLAW	Direct-Feed Low Activity Waste Facility	TRC	Total Recordable Case
DOE	U.S. Department of Energy	VAT	Voluntary Protection Program Action Team
HQ	DOE Headquarters	VPP	Voluntary Protection Program
EJTA	employee job task analysis	VPPPA	Voluntary Protection Programs Participants' Association
ES&H	Environmental Safety & Health	VR	virtual reality
ESRB	Executive Safety Review Board	WRPS	Washington River Protection Solutions
HLW	High-Level Waste (facility)	WTCC	Waste Treatment Completion Company
HPI	Human Performance Improvement	WTP	Hanford Tank Waste Treatment and Immobilization Plant
ISMS	Integrated Safety Management System	ZAC	Zero Accident Council
LAB	Analytical Laboratory		
LAW	Low-Activity Waste Facility		
LBL	LAW, BOF, and LAB		
LLC	limited liability company		
MSA	Mission Support Alliance		

1 Background

1.1 WTP Mission

One of the primary missions of the U.S. Department of Energy (DOE) is the environmental cleanup of legacy wastes at DOE sites across the country. In December 2000, DOE entered into the Hanford Tank Waste Treatment and Immobilization Plant (WTP) Contract (DE-AC27-01RV14136 [DOE 2000]) with Bechtel National, Inc. (BNI) to design, construct, and commission a waste treatment plant to remediate the large inventory of mixed radioactive and hazardous waste stored in the Hanford Site tank farms. The waste is a legacy of the production of special nuclear material during the Cold War. DOE assigned responsibility for managing and overseeing the BNI contract to the DOE Office of River Protection (ORP).

The WTP consists of five major facilities: Pretreatment Facility (PT), Low-Activity Waste Facility (LAW), High-Level Waste Facility (HLW), Analytical Laboratory (Lab), and a collection of utilities, infrastructure systems and other support services called the Balance of Facilities (BOF). The WTP is designed to operate with all five facilities working in tandem to treat and immobilize the inventory of Hanford Site tank waste on a schedule consistent with the terms of an amended Consent Decree entered into by DOE, the U.S. Environmental Protection Agency, and the State of Washington.

Early in the design of the WTP, several significant technical issues were identified—the resolution of which resulted in delays in completing the WTP on the original schedule. In response, ORP devised a strategy to complete the WTP in phases. The first phase will treat and separate the waste in the tank farms rather than in the WTP, and the low activity fraction will then be fed directly to the LAW Facility, bypassing the PT and HLW facilities. Design in this configuration is called Direct Feed Low-Activity Waste (DFLAW). The DFLAW configuration will allow waste to be retrieved and immobilized at an earlier date while the design, construction, and commissioning of the PT and HLW facilities are still being completed.³

1.2 Creation of the Waste Treatment Completion Company, LLC

The DFLAW approach entails commissioning of the LAW/BOF/LAB (LBL) facilities with subsequent design, procurement, and construction of the HLW and PT facilities. When the LBL facilities are fully commissioned, the expectation is that both construction and commissioning will be simultaneously occurring on the site. In considering the implications of the DFLAW approach, BNI determined that greater management attention was going to be needed to minimize interferences between construction, startup, and commissioning activities. As a result, BNI developed a proposal to join with AECOM and form a new company. Creation of the new company was approved by DOE.

The new company is called the Waste Treatment Completion Company, LLC (WTCC). BNI awarded a subcontract to WTCC to take over the construction, startup, and commissioning scope of the WTP Contract, and the new company became active in March 2017. The BNI subcontract with WTCC does not alter the terms of the primary WTP Contract. BNI retains full responsibility for execution of the WTP scope, including the portion assigned to WTCC.⁴

³ Text in this section was excerpted and adapted from 24590-WTP-ISMSD-ESH-01-001, Revision 16.

⁴ Text in this section was excerpted and adapted from 24590-WTP-ISMSD-ESH-01-001, Revision 16.

In April 2017, WTCC senior management requested that BNI transfer the DOE Voluntary Protection Program (VPP) conditional Star status to WTCC. This transfer was documented by DOE Headquarters on May 16, 2017 with ORP concurrence (CCN 298523). Where appropriate, quotes from external documents that are reproduced in this report have been updated to reference WTCC where BNI was previously referenced.

2 VPP and the Annual Self-Assessment

In alignment with the Occupational Safety and Health Administration's (OSHA) Voluntary Protection Program (VPP), the U.S. Department of Energy-VPP (DOE-VPP) recognizes sites for effective implementation of safety and health programs and maintaining injury and illness rates below national averages as computed by the Bureau of Labor Statistics. Participation in the VPP is voluntary and applicants to the program undergo a thorough review process that includes an onsite evaluation. Following a successful DOE-VPP onsite appraisal, the WTP Project received VPP Star certification in August 2010 and was recertified as a Star site in 2013. Maintenance of Star status requires a triennial DOE-HQ onsite review and an annual self-assessment.

2.1 Results of the 2016 Department of Energy Voluntary Protection Program Onsite Review

DOE-VPP Star programs are typically reviewed by DOE-HQ triennially, with schedules established by DOE based on operational considerations. DOE-HQ VPP performed its triennial on-site review of the WTP Project's VPP October 25 – November 3, 2016. The DOE-VPP Assessment Team concluded:

“Although BNI [WTCC] meets four of the five DOE-VPP tenets, Employee Involvement has substantially dropped since the 2013 assessment. The limited Employee Involvement is leading to other cultural and communication difficulties, and does not currently demonstrate the level of excellence expected of a DOE-VPP Star site.”⁵

As a result, WTP DOE-VPP Star certification was placed on “conditional” status to enable the WTP Project to implement program improvements. The DOE-VPP Assessment Team provided guidance and mentoring on methods and mechanisms to encourage the active participation of all levels of employees in VPP and committed to returning to perform a follow-up evaluation in February 2018.

2.2 2017 WTCC Voluntary Protection Program Improvement Plan

On March 8, 2017, the WTP project published the WTCC Voluntary Protection Program (VPP) Improvement Plan (WTCC-PL-17-00001) based upon the results of the 2016 DOE-VPP Onsite Review. This plan identifies the initiatives undertaken by WTCC in 2017 and early 2018 to improve safety performance and successfully recertify as a DOE-VPP Star site.

Overall, the DOE-VPP Assessment Team identified a total of ten improvement opportunities. It was determined through post-assessment discussions between WTCC and the DOE-VPP Assessment Team that only three of the ten improvement opportunities were critical to the WTP Project's continued

⁵ Excerpt from CCN 296889, *DOE-VPP BNI WTP Construction Site Report from the DOE VPP Onsite Review, October 25-November 3, 2016, p. v. 03 March 2017.*

participation in the DOE-VPP. The Assessment Team also indicated that the scope of its follow-up validation (in February 2018) would be strictly limited to the DOE-VPP elements of *Employee Involvement* and *Management Leadership*. On this basis, WTCC limited the scope of the VPP Improvement Plan to address these elements and the three directly-related critical improvement opportunities.⁶

The improvement opportunities within the scope and application of the 2017 WTCC VPP Improvement Plan are:

- (a) Managers need to broaden their personal expectations for *Employee Involvement* by:
 - a. Providing resources to various safety committees to operate relevant campaigns to stimulate worker involvement
 - b. Finding more effective, objective measures of employee participation in those activities

- (b) [WTCC] needs to provide foremen, superintendents, managers, and committee members with effective tools and training to recognize and encourage worker involvement in safety programs by:
 - a. Increasing managers' visibility in the work area
 - b. Ensuring superintendents are leading by example
 - c. Ensuring workers' concerns are effectively addressed without fear of retaliation or apprehension due to their rank or position

- (c) [WTCC] needs to develop broader opportunities and activities that promote worker participation while reinforcing and encouraging safety awareness and safe behaviors.
 - a. These opportunities and activities should result in rewards for employees which are consistent with the level of effort and expected value of participation, rather than cash awards dispensed from random drawings.

The effectiveness of this improvement plan was evaluated as part of the 2017 WTCC VPP Annual Self-Assessment. More details about the development and implementation of this improvement plan can be found in section 3 of this document.

2.3 2017 WTCC VPP Annual Self-Assessment

To maintain star status, a VPP self-assessment is performed annually to evaluate the implementation and effectiveness of the five core elements of VPP—*Management Leadership*, *Employee Involvement*, *Worksite Analysis*, *Hazard Prevention and Control*, and *Safety and Health Training*. This self-assessment is performed in accordance with programmatic requirements established by the *US Department of*

⁶ Text in this section was excerpted and adapted from WTCC-PL-17-00001

Energy Voluntary Protection Program Part 1: Program Elements (DOE-HQ VPP Handbook) and guidance documents.

Assessment Dates: October 16 – 19, 2017

Assessment Team: WTCC VPP Action Team Safety Committee, WTCC management, WTCC alumni members of the VPP Steering Committee, and subject matter experts (SME) for VPP from Mission Support Alliance (MSA) and Washington River Protection Solutions (WRPS)

Evaluation Criteria Used: Lines of inquiry from the DOE-HQ VPP Handbook

Personnel Interviewed: 235 WTCC employees (Approximately 14% of WTCC workforce) with a range of experience from 2 months to 16 years on the WTP Project

The 2017 WTCC VPP Assessment Team conducted the annual self-assessment of the DOE-VPP elements and concluded the following:

- The area that was identified by the 2016 DOE-HQ VPP Team as requiring the most improvement (*Worker Involvement*) has been addressed by effective implementation of the WTCC VPP Improvement Plan (WTCC-PL-17-00001). The annual assessment confirmed that worker participation in safety and quality committee activities increased in 2017 following implementation of changes to the committee structure (to be more inclusive). Workers were further encouraged to participate in committee activities through increased management support of committee participation.
- Employees are demonstrating a safe work culture where employee rewards and recognition provide positive reinforcement of safe behaviors, individuals are recognized for safe work performance, employees are knowledgeable about VPP, and are committed to safety as a personal value.
- With the continued implementation of the VPP improvements, WTCC is poised to become an interdependent organization where teams come together and care for others and take pride in the work and overall organization.⁷

Nine (9) opportunities for improvement were also identified during the 2017 annual assessment. These are detailed in section 7 of this document.

Overall, the 2017 WTCC VPP Assessment Team found that WTCC management, supervisors, and employees are implementing improvements to the program each month and the WTCC Action team confirmed that implementation of the DOE-VPP elements for *Management Leadership, Worker Involvement, Worksite Analysis, Hazard Prevention and Control, and Safety and Health Training* are adequately demonstrated by WTCC employees.

⁷ Adapted and excerpted from 24590-WTP-SAR-CON-17-0010

3 WTCC Safety and Health Program Improvements

3.1 WTCC VPP Improvement Plan Development

The implementation of the WTCC VPP Improvement Plan resulted in continuous improvement of *Management Leadership* and *Worker Involvement* throughout 2017. The opportunities for improvement from the 2016 DOE VPP Onsite Review were reviewed with WTCC management, ORP, DOE-HQ, and other Hanford Site VPP Star sites.

A baseline perception survey was conducted for WTP site employees to establish objective goals for completion of the DOE-VPP improvement actions. The survey participants identified additional VPP-related improvements that were added to the WTCC VPP Improvement Plan. A total of 39 program improvements were defined and assigned to a responsible person with an expected deliverable and an expected completion date.

The WTCC VPP Improvement Plan was reviewed, revised, and updated monthly with progress reported to WTCC management personnel, ORP, BNI, Bechtel Corporate, and AECOM.

3.2 WTCC VPP Improvement Plan Implementation Actions

Following is a summary of the improvements implemented by the WTCC management and employee team in 2017 in support of the VPP tenets of *Management Leadership* and *Worker Involvement*.

- Developed a comprehensive WTCC VPP Improvement Plan and it submitted to ORP. This plan was based on recommendations from the DOE-HQ VPP 2016 onsite review assessment report.
- Conducted monthly review meetings involving Environmental, Safety & Health (ES&H) personnel and WTCC senior management to discuss VPP improvement progress, goals, and objectives.
- Conducted a WTCC employee perception survey to obtain a baseline of safety culture status and to solicit feedback for specific VPP improvement actions. Incorporated the feedback obtained from the survey into the WTCC VPP Improvement Plan.
- Created a WTCC Executive Safety Review Board (ESRB) (26030-MP-17-00007) to bring together representatives from WTCC senior management, WTCC safety and quality committee chairs, WTCC line managers, and ES&H management to:
 - review safety performance
 - discuss VPP improvement actions
 - ensure senior management supports ES&H programs
 - ensure senior management encourages worker involvement in VPP activities
 - demonstrate line management commitment to safety

The WTCC Deputy General Manager is the chair of this committee.

- Revised the *WTCC Safety and Quality Committees* (26030-MP-17-00009) management policy to include the Zero Accident Council (ZAC) Charter and other current active standing committees.
- Created the Area Safety Team (AST) where all employees (manual and nonmanual) are represented by a WTCC site safety committee. A new overall committee structure was outlined with the WTCC

President/General Manager as the chair of this committee. Area Safety Teams have been established for the following locations:

- Low Activity Waste (LAW)
 - Lab/Distrib/T1/HLW/PT
 - Material Handling Facility (MHF)
 - Balance of Facilities (BOF)
 - Effluent Management Facility (EMF)
 - T52
- Updated the WTCC Committee Charter from the Construction Safety Alliance to include the *VPP Action Team (VAT)* (26030-MP-17-00008). This charter now accurately reflects the role of the VPP Action Team and aligns with the goals and objectives outlined in the committee charter. This committee comprises both employees and craft personnel and was improved to include maintenance, operations, commissioning and other WTCC personnel not previously included in a WTCC Safety and Quality Committee. This committee conducts the VPP annual self-assessment, provides the status of improvement actions supporting VPP and communicates VPP-related information through Safely Speaking meetings, supervisor monthly meetings, and general site communications (e.g., ZAC Newsletter, WTCC Employee News, and VitBits).
 - Communicated expectations to WTCC management for encouraging participation in the WTCC Safety and Quality Committee and recognized managers and supervisors who have staff members on a WTCC committee.
 - Published a suite of informative posters emphasizing management and safety culture expectations for VPP participation. These expectations were also communicated to WTCC employees through all hands meetings, e-mail communications, and the monthly leadership alignment and supervisor safety meetings.
 - Communicated WTCC management expectations during WTCC Leadership Alignment meetings regarding protecting the rights of all WTCC employees to have a safe and healthy place to work
 - Provided Safety Conscious Work Environment (SCWE) refresher training to all WTCC employees to reinforce the rights of all employees to:
 - Raise ES&H and quality concerns
 - Provide improvement suggestions to any level of management (WTCC, WTP/BNI, or DOE)
 - Maintain a questioning attitude
 - Stop work
 - Work in an environment free of fear of harassment, intimidation, retaliation, discrimination, and (or) retribution
 - Updated the employee award and recognition process and criteria in the *WTP Employee Recognition Program* (24590-WTP-GPG-RAHR-HR-0005). Following this update, the following actions were taken:
 - Provided WTCC management, ES&H staff, and WTCC committee members with on-the-spot awards and recognition certificates (and criteria for employee recognition) to give to WTCC employees as rewards for safe acts and behaviors.

- Provided employee recognition information to management through monthly supervisor meetings, monthly leadership integration meetings, bi-monthly WTCC electronic newsletters, and on-the-spot recognition during site walk-through observations and interactions.
- Procured new incentive awards to provide additional mechanisms to recognize employees for safe behaviors and participation in safety-related activities.
- Developed WTCC committee campaigns that are based upon active employee participation in the ES&H program demonstrating the mechanisms in which they actively participated.
- Developed safety and health metrics to measure process improvements for VPP, behavior-based safety (BBS), and human performance improvement (HPI). These metrics include measurement, analysis, and reporting of the following:
 - Management hours spent per month in the field
 - Management observations conducted each month
 - WTCC committee participation
 - WTCC campaign monthly employee recognition
 - Safety Task Analysis and Risk Reduction Talk (STARRT) card evaluations and effectiveness
 - Safety Trained Supervisor (STS) training and effectiveness
- Developed management tools to include the following:
 - Safety Trained Supervisor certification (Board of Certified Safety Professionals) briefing modules were updated and include a knowledge check at the end of the 3-day briefing and training.
 - Training on the use of the electronic checklist system (Chekhov) to document field observations.
 - Training on how to effectively communicate and interact with employees in the field during observations and assessments.
- Developed monthly communications for VPP, Integrated Safety Management System (ISMS), and life-critical behavior requirements for the WTCC Newsletter, ZAC Newsletter, Safely Speaking meetings, and reader boards at the WTP site.
- Reviewed the WTCC injury and illness reporting process using input from WTCC employee focus groups that developed and recommended improvements to allow the process to be more effective. Improvements were presented to the ESRB and added to the WTCC VPP Improvement Plan.
- Added a WTCC senior management presentation once a month at each Safely Speaking meeting to provide general updates on WTCC progress, follow up on employee feedback, obtain employee suggestions and improvements, and increase interaction with site personnel.
- Developed a WTCC Committee for VPP/ISMS communications. This committee was formed based on feedback from the ESRB in preparation for ISMS Phase I Verification and the VPP follow-up evaluation by DOE. Coordination will allow for a consistent and effective method(s) for distribution and flow down of information to all WTCC site personnel.
- Created site maps with building and area identifications, WTCC ES&H contacts, water stations, and safety equipment locations identified for use by managers, staff, and personnel conducting

observations, interactions, and (or) assessments at the WTP site. Map information is updated periodically to reflect changing conditions at the site.

- Conducted analysis of ES&H leading indicators.
- Created a dashboard for ES&H focus areas to communicate monthly focus areas, trends, improvement areas, and implementation of best practices.

4 VPP Mentoring and Outreach

In 2017, WTCC completed VPP mentoring and outreach activities and attained VPP-related achievements/awards/recognition. These are detailed below.

4.1 VPP-Related Mentoring and Outreach Activities

- Assisted DOE-HQ VPP Teams with two VPP re-certifications across the DOE complex.
- Coordinated the DOE-HQ VPP update at the 2017 National Conference and provided breakout sessions and award information to DOE complex attendees.
- Attended VPPPA Region X Conference (four employees) and the National VPPPA Annual meeting (four employees) and shared feedback and lessons learned with WTCC employees and management personnel.
- Benchmarked DOE sites and obtained best practices for monitoring for heat stress through physiological monitoring.
- Conducted detailed analysis and review of the Senior Supervisor Watch observations for 2016 and 2017 and identified improvement opportunities and areas that were best practices.

4.2 VPP-Related Achievements/Awards/Recognition

- A WTCC employee family member earned the Voluntary Protection Programs Participants' Association (VPPPA) Scholarship-Steven Brown Award for continuing education for a trade profession.
- A WTCC employee was re-elected to the VPPPA Board of Directors as the DOE-VPP representative for the nation.
- WTCC was recognized by the DOE-HQ VPP Team for a best practice: Development and use of HPI-based training on confined space and hazard identification using the simulator training facility. Information was sent to DOE-HQ and Los Alamos National Laboratory staff for their information and use.
- WTCC was recognized by the DOE-HQ VPP staff for a best practice: Created STS training modules, knowledge check exam, and the business case for benefits of the STS to WTCC. This information was passed along to other DOE sites by DOE-HQ personnel.

5 Injury Illness Rates

5.1 WTP Project Injury/Illness Rates (Including Subcontractors)

In alignment with the Occupational Safety and Health Administration's (OSHA) Voluntary Protection Program (VPP), the U.S. Department of Energy's (DOE) VPP recognizes sites for effective implementation of safety and health programs and for maintaining injury and illness rates below national averages as computed by the Bureau of Labor Statistics.

Table 1 shows the last three years of injury and illness data compared with the published Bureau of Labor Statistics case rates for the most recent year that data is available (2016).

In 2017, a significant reduction in injury/illness rates was seen when compared to the previous calendar year. Specifically, the WTP Project Site's:

- Total Recordable Rate went from 1.34 (2016) to 0.76 (2017) (reduction of approximately 43%)
- DART Rate went from 0.75 (2016) to 0.51 (2017) (reduction of approximately 33%)
- DAFW Rate went from 0.33 (2016) to 0.13 (2017) (reduction of approximately 62%)

When compared to the Bureau of Labor Statistics case rates for 2016, the 3-year WTP Project (site) injury/illness rates are significantly lower than the industry rates:

- 3-year WTP Project (site) Total Recordable Rate is 69% lower than the 2016 industry rate
- 3-year WTP Project (site) DART Rate is 71% lower than the 2016 industry rate
- 3-year WTP Project (site) DAFW Rate is 80% lower than the 2016 industry rate

Table 1 - WTP Project (Site Workforce) Occupational Injury/Illness Cases and Rates 2015-2017 Compared to Industry Rates

Injury Incident Case Rate – WTP Project Site (includes Subcontractors)							
Calendar Year	Hours Worked	TRC		DART		DAFW	
		Cases	Rate	Cases	Rate	Cases	Rate
2017	3,161,530 ⁸	12	0.76	8	0.51	2	0.13
2016	2,392,644	16	1.34	9	0.75	4	0.33
2015	2,450,545	7	0.57	3	0.24	2	0.16
3 – Year Total/Average	8,004,719/ 2,668,240	35 total / ~12/yr (Ave)	0.87 (Ave)	20/ ~7/yr (Ave)	0.50 (Ave)	8/ ~3/yr (Ave)	0.20 (Ave)
BLS Case Rates (NAICS Code 237 [CY 2016])			2.8		1.7		1.0

⁸ WTCC became active on 3/27/17. Hours for WTCC and all WTP Project site subcontractors for 3/27 – 12/31/17 totaled 2,548,075. During this timeframe, there were: 10 recordable cases (rate: 0.78), 7 of which were DART cases (rate: 0.55), and one of which was a DAFW case (rate: 0.08).

Prior to 3/26/17, the WTP Project site hours included employees of site-deployed Bechtel National, Inc. and AECOM. Hours for WTP Project site employees and subcontractors for 1/1 – 3/26/17 totaled 613,455. During this timeframe, there were: 2 recordable cases (rate: 0.65), one of which was a DART case (rate: 0.33) and one of which was a DAFW case (rate: 0.33)

5.2 WTP Project Subcontractor Injury/Illness Rates

The DOE-VPP Handbook states that DOE evaluates the injury and illness rates for all subcontractors operating under a DOE-VPP participant's control. This data is listed in Table 2 (see below) so that it can be easily reviewed and compared to the relevant Bureau of Labor Statistics case rates for 2016.⁹

In 2017, there were no recordable injuries/illnesses reported by WTP Project site subcontractors, representing a 100% reduction from 2016 injury/illness case rates.

When compared to the Bureau of Labor Statistics case rates for 2016, the 3-year WTP Project site subcontractors' injury/illness rates are significantly lower than the industry rates:

- 3-year WTP Project site subcontractors Total Recordable Rate is 67% lower than the 2016 industry rate
- 3-year WTP Project site subcontractors DART Rate is 73% lower than the 2016 industry rate
- 3-year WTP Project site subcontractors DAFW Rate is 54% lower than the 2016 industry rate

Table 2 - WTP Project Site Subcontractor Occupational Injury/Illness Cases and Rates 2015-2017 Compared to Industry Rates

Injury Incident Case Rate – WTP Site Subcontractors Only							
Calendar Year	Hours Worked	TRC		DART		DAFW	
		Cases	Rate	Cases	Rate	Cases	Rate
2017	331,838	0	0.00	0	0.00	0	0.00
2016	241,794	4	3.31	2	1.65	2	1.65
2015	291,614	0	0.00	0	0.00	0	0.00
3-Year Total/Average	865,246/ 288,415	4/ ~1/yr (Ave)	0.92 (Ave)	2/ <1/yr (Ave)	0.46 (Ave)	2/ <1/yr (Ave)	0.46 (Ave)
BLS Case Rates (NAICS Code 237 [CY 2016])			2.8		1.7		1.0

⁹ Requirement found in the DOE-VPP Part I: Program Elements document VII. Post-Approval Activities, (B) Re-Evaluation Process, (1) The Star Program (d)(2), Revised May 2012.

6 VPP Tenet Evaluation and Continuous Improvements

6.1 Management Leadership

WTCC has an experienced management team and is committed to achieving and maintaining a world-class safety program for WTCC. The WTCC President/General Manager has made a significant impact on the WTCC employees by demonstrating care and concern through daily field and work area observations and interactions with the workforce. WTCC senior management is engaging employees in the field and safety is viewed as a value by WTCC management. WTCC management encourages and allows all employees to stop work at any time.

Resources and training are provided to WTCC employees to safely conduct work. Workers feel that resources are adequately allocated for new technology to improve hazard recognition and controls. Personal protective equipment, tools, and supplies are readily available at tool issue locations.

WTCC management expectations for field observations and hours has proven effective in increasing management presence in the field. Management observations are being documented through the Chekhov system.

6.1.1 Management Leadership Continuous Improvement

In 2017, WTCC conducted continuous improvement activities in support of the VPP tenet of *Management Leadership*. These included the following:

- Evaluated WTCC safety committees for effectiveness consistent with their charters: May 2017
- Developed indicators to measure employee engagement in the new rewards program: May 2017
- Implemented and communicated the revised safety recognition program: June 2017
- Improved effectiveness of the management observation program: July 2017
- Directed each WTCC safety committee to develop at least two safety initiatives per calendar year consistent with its respective charter: July 2017
- Conducted focus groups on the injury reporting process: August 2017
- Executed the implementation plan for Safety Trained Supervisors: October 2017
- Conducted focus groups to improve the injury and illness reporting process with improvements proposed to the ESRB for review and implementation: throughout 2017

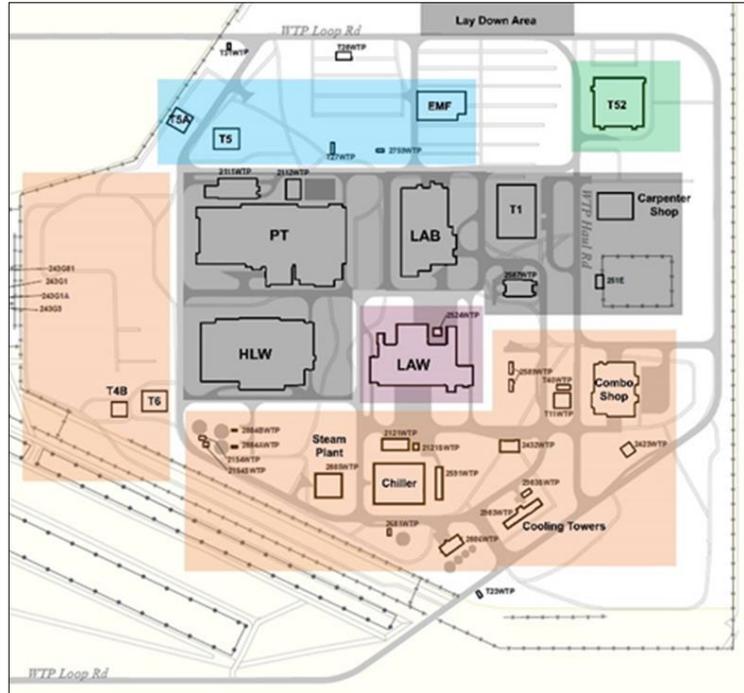
6.2 Employee Involvement

In 2017, the WTCC VPP Action Team completed actions to promote the active engagement and participation of all employees. Many program improvements are new or recently implemented and will require future evaluation to determine the effectiveness of the improvement actions, and the overall benefits realized by WTCC.

As part of the continuous improvement in 2017 to actively engage all WTCC employees, WTCC management and supervisors outlined expectations for encouraging participation in WTCC safety and quality committees, provided recognition for managers and supervisors that have crew members on a WTCC committee, and provided an overview of the WTCC standing committees and the need for additional employee participation.

The new Area Safety Teams were established (see Figure 1), which ensure that all WTP Project site employees are represented by at least one location-based safety committee.

Figure 1 - Each color represents an area covered by a different Area Safety Team.



Area Safety Team Champion (Write in names)	Area Covered
Justin Swanson	EMF
John Andreatta	LAW
Ken Wells	BOF
Joe Curcio	Distribs, T-1, Lab, HLW, PT
Bob Dikeman	T-52 / Warehouse
Shannon Hickman	MHF (Town)

6.3 Worksite Analysis

WTCC implements the ISMS core functions, *define the scope of work* and *identify and analyze the hazards*, ensuring a systematic approach to hazard analysis and control in all phases of work. This process results in safety and health considerations fully integrated into work planning, incorporating feedback from employees, technical expertise, lessons learned and best practices, and a questioning attitude by all employees to ensure that new or emerging hazards are identified and analyzed.

Hazard analysis is conducted through *Work Control and Work Packaging* (24590-WTP-GPP-WPHA-001) in the development of work packages for construction. The process incorporates the assisted job hazard analysis (AJHA) tool that provides standard hazard control information to the work planning team. This

process is enhanced through pre-job briefings and use of the safety task analysis and risk reduction talk (STARRT) card process that promotes evaluation of potential hazards for each scope of work (described in *Hazard Analysis and Control*, 24590-WTP-GPP-WPHA-002). Additionally, site walk-downs are conducted to understand scope, hazards, and potential controls to ensure the safe execution of work. Walkdown teams include supervision, field safety personnel, craft personnel conducting the work, and other technical experts to review the hazards, permits, and procedural requirements.

Work tasks are evaluated to determine the type of work package to develop. Work packages are developed collectively, reviewed, and approved by the task lead, supervisor, and ES&H to verify analysis and control of hazards before authorization of work. This ensures that employees conducting the work are aware of the hazards, the controls outlined, and the procedures and steps to be followed during the work process.

The packages are based upon the activity and the hazards and controls associated with that task, location, environmental conditions, and the duration and time of day needed to safely accomplish the activity. Work packages are identified from type 1 through 5, with type 1 needing immediate actions to control hazards and maintain safety, to a type 5 package completed for routine and repetitive work where the hazards and controls are known and in place.

Baseline hazard assessment are conducted for the site to include the review of safety data sheets (SDS), chemicals and substances, potential exposures from other processes, applicable standards, and the method and type of activity to determine exposure potentials. Each employee maintains an active *Employee Job Task Analysis (EJTA)* (24590-WTP-GPP-RAWS-OM-0021) to identify the anticipated personal protective equipment (PPE), physical demands of the job, anticipated hazards associated with the execution of work, and medical evaluation requirements.

Certain hazards require additional training, monitoring, and medical evaluations to ensure each WTCC employee is provided a safe and healthful workplace. Managers and Industrial Hygiene personnel review EJTA's with employees to ensure hazards are up to date, controls and monitoring are in place, and each employee understands the hazards and potential exposures.

6.4 Hazard Prevention and Control

Work Control and Work Packaging (24590-WTP-GPP-WPHA-001) implements the ISMS requirements for the planning and performance of work at the activity level. The work control process is applicable to all work activities managed and performed by WTCC and its subcontractors, and is flowed down to subcontractors in accordance with subcontract terms and conditions as required by subcontract documents. For subcontracted work, work control key roles may be filled by WTCC or subcontractor personnel, as specified in subcontract documents.

The WTCC work control process is not applicable to work performed by other Hanford Site contractors—such as Mission Support Alliance or Pacific Northwest National Laboratory—that use their own DOE-approved work control programs. Work packages identify the necessary controls for the work place hazards with most the controls implemented through overarching hazard control documents. Signs, placards, barricades, personal protective equipment, and hazard barricades provide additional

information and protection for employees conducting work in and around the areas controlled by WTCC.

Managers and supervisors are instructed to implement an observational approach methodology when the nature of the work is prone to unknowns and hazards are not clear (e.g., underground electrical lines). During work activities, employees are directed to stop work if the following occurs:

- Additional work or work scope not identified in the procedure needs to be performed
- A procedure step cannot be performed as written (including sequence)
- Following the procedure will create an unsafe or noncompliant condition
- An unexpected hazard or condition is encountered or hazard controls are determined to be inadequate.

For a stop work action, workers:

- Do not attempt to remedy changed conditions or fix problems beyond the minimum required to place the component, system, or work area in a stable and safe condition and stop work
- Immediately notify the manager or supervisor.

WTCC management then assesses the new hazards and (or) changed conditions and determines what measures are necessary to safely restart work. WTCC management also initiates appropriate changes to procedures and (or) work area controls to resolve the issue(s).

Hazard controls identified during the hazard analysis are required to be incorporated into the work instructions, making them user friendly for managers and supervisors. The WTCC hazard analysis process is performed in real time by a contingent group that comprises planners, first-line supervisors, project safety representatives, appropriate craft, and other subject-matter experts. The process does not rely on automated systems, but rather takes advantage of the synergistic group dynamic of collectively performing the analysis in real time, resulting in a thorough hazards analysis.

Hazard analysis and controls are enhanced by the hazards simulator and by the input of the WTCC Safety and Quality Committee on emerging hazards and future processes.

6.5 Safety and Health Training

The WTCC Project Training organization is responsible for ensuring that employees are trained, qualified, and capable of performing their assigned tasks. WTCC Project Training is responsible for providing the support necessary to ensure that personnel are qualified to safely and effectively meet job requirements. Elements of the program include the following:

- Performing training needs analyses (based on work location, hazards, work scope, and activities conducted)
- Writing training development plans
- Designing appropriate methodology of training delivery (classroom, computer-based training, required reading, read and review with SME, on the job training and evaluations)

- Developing curriculum, courses, and web-based training
- Delivering training

Evidence from documents and interviews shows that top managers at the WTP Project site receive both formal and informal training annually regarding how to implement their safety and health responsibilities. Managers and supervisors receive training specific to line management responsibilities and leadership through ISMS and VPP training on an annual basis. Formal training is also provided for the following subjects SCWE, HPI, Nuclear Safety and Quality Culture, planning and budgeting, and management self-assessment process training.

The WTP Project Director provides awareness information, management leadership tools and materials, and safety and quality expectations on a routine basis. These are provided through newsletters, Project Director messages, all employee messages, and WTP Management Spotlight on Excellence. Additional leadership awareness training is provided to managers and supervisors through Leadership Effectiveness (e.g., change management), coordination training and teaming with subcontractors, People Based Quality Training-Quality Absolutes, and applying lessons learned and best practices as part of a learning organization. Management expectations for training and safety and health are clear and agreed upon as evidenced by the Zero Tolerance for Retaliation declaration signed by Project senior leadership.

Evidence from documents and interviews shows that supervisors receive training on their responsibilities for worker safety and health and are actively involved in the safety and health culture, evaluation, and training assignments for their staff.

A review of sample EJTA's and training outlines for several employees was conducted to determine if the assigned training matches the medical clearances and hazards identified in the EJTA. Employees included the prime and subcontractors and outlined the potential hazards and training needed to safely complete their assigned work. Training documentation and interviews provides evidence that all training required by DOE standards or orders is being carried out systematically and thoroughly.

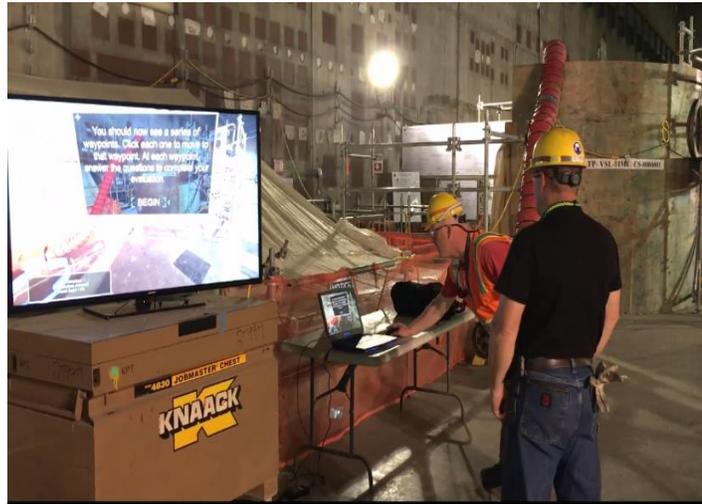
There is evidence that where PPE is required, employees understand the need for it and demonstrate knowledge of how to use and maintain the equipment. The DOE-VPP Assessment Team was provided a briefing prior to entering the site and were provided with PPE during that briefing. A summary of the potential hazards and the use of the PPE was offered. Employees have the ability and the opportunity to obtain the necessary PPE through the tool crib, which also provides a wide variety of glove options for use. This was an opportunity for improvement when the WTP Project assembled a team to review the safety trends, onsite hazards, and the need for hand protection. Awareness briefings were provided to employees on the uses and types of gloves available and the hazards associated with this protection.

Interviews with employees confirmed that the safety and health training was effective with annual refresher training, briefings, and companywide communications when conditions and (or) hazards change. A sampling of records indicated that all persons operating in contractor-controlled spaces at the site have received appropriate site orientation. This is demonstrated by the "brown" badge for unescorted access at the WTP Project Site and briefings provided to those with escorted access. Regardless of the affiliation (prime, subcontractor, staff augmentation, or other personnel), employees were provided the training needed for the work location and activities being conducted.

6.5.1 Hazards Simulation Training

WTP developed simulation training (see figure 2) to provide workers with a practical method of hazard identification and control in a controlled environment. WTCC Field Safety and Health provides this hands-on training course to assist in improving employees' abilities to identify hazards in the work environment. This type of on-the-job training and execution is designed to mirror the work environment and demonstrate in real time the types of hazards an employee may encounter. This hands-on training is designed to increase the retention of the material being provided. The first phase of the training

Figure 2- Employees participate in the hazard simulation training.



began in October 2014 with emphasis on hazard identification. The second phase was expanded to include the control mechanisms associated with the identified hazards to help employees identify and correct hazards in the work environment and supplement classroom and computer-based training. WTCC Field Safety and Health set up two work stations in the Pretreatment Facility canyon area. Each includes a scenario similar to what would be found at work locations on the construction site. Each station has several issues to identify related to safety, training, environmental, industrial hygiene, STARRT card signoff, and hazard identification. Employees are asked to record all the hazards they identify. Field Safety and Health has multiple scenarios that change periodically and covers 16 different procedures.

Managers, foremen, general foremen, supervisors and employees have been through hazard simulation with the intent to sharpen employee skills when it comes to identifying and correcting adverse behavior when performing their oversight function. The training provides insight to the complexity of the requirements to perform work at WTP. In one scenario, an employee is called to review a permit-required confined space. Reportable issues are staged in the space, as well as along the route to the space. The employee must assess all situations and list the hazards and appropriate controls. Each scenario also includes an item that would cause an employee to pause or stop the work activity. These scenarios were developed based upon lessons learned and site incidents. All craft employees at the construction site participated in the training, beginning with superintendents. More than 800 people were trained during the first phase.

In early 2016, numerous confined space entries were being completed each day at the WTP Project. During that time, some of the permits were filled out incorrectly, due to confusion with drop-down menu choices. As part of a continuous improvement effort, the WTP Project Safety Team completed and rolled out a revamped version of their confined space training.

Training is now divided into three parts:

- Classroom review of the procedure.

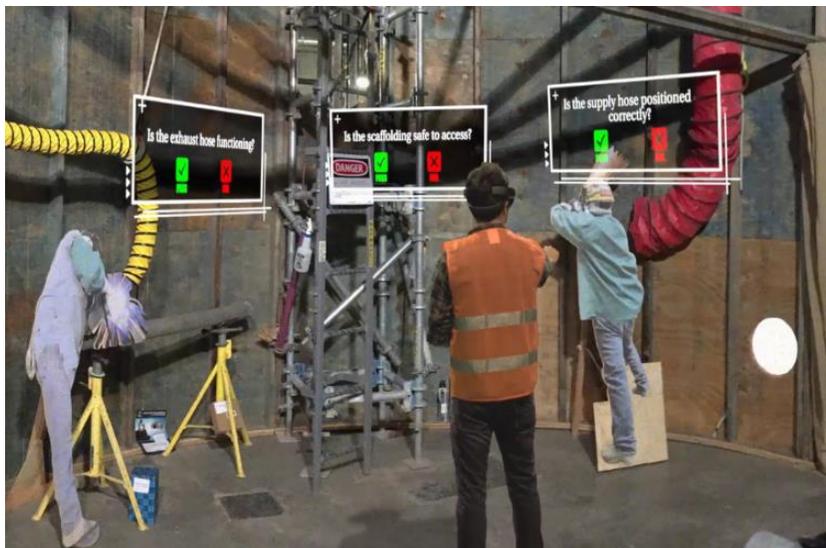
- Computer laboratory, with hands-on practice of the how and why of filling out the permit. The computer laboratory has made a huge difference in the quality of permits now being generated.
- Complete hands-on simulated confined space entry.

6.5.2 Virtual Reality Training

Building on the success of hands-on simulation, the next step is to digitize these simulations into a virtual reality (VR) experience (see figure 3). Used in concert with the physical simulator, the VR simulation will create a true competence-based training experience. The VR simulation will assess the individual's observation and assessment abilities. In this scenario, employees are required to demonstrate their ability to properly complete the confined space entry evaluation and inspect the virtual site. Trainees will also be required to assess whether the confined space meets the requirements of the permit by moving around the virtual environment and assessing each piece of equipment.

While most training will be delivered on a personal computer, the simulations can be delivered on a wide variety of hardware, from tablets to fully immersive VR headsets that have the potential to offer an unparalleled training experience. The benefits are many and the potential is unlimited as WTCC moves into the next generation of training methods and technology.

Figure 3 - An illustration depicting the simulator training as a virtual reality experience.



7 Opportunities for Improvement

This section lists all the summarized interview responses from the 2017 WTCC VPP Self-Assessment (24590-WTP-SAR-CON-17-0010) that were identified as opportunities for improvement. They are grouped by VPP tenet. Some opportunities for improvement involve more than one tenet.

Identifier: 24590-WTP-GRN-MGT-18-00003

Related VPP Tenets: *Management Leadership, Employee Involvement*

Interview Questions: How does management participate with employees? How is top management involved with worker safety and health?

Summarized Interview Responses/Opportunities for Improvement:

WTCC management and supervisors need to communicate (both vertically and horizontally) to first-line supervisors, superintendents, foremen, employees, and craft. Interviews indicated that WTCC

senior management expectations for encouraging and establishing expected safety behaviors by employees are inconsistently communicated. WTCC senior management should ensure the demonstration of safety and health accountability for all levels of management, and set the example by demonstrating behaviors desired by their employees.

Employees felt management has made some strides in this area, with the General Manager touring work spaces on a continuous basis. However, there still seems to be a breakdown in communication due to lack of plan of the day information flow down (supervisors only skim the information and share what they think is important). Nightshift employees felt that they were only getting negative feedback; they need better communication between the two shifts as to the job tasks from shift to shift (i.e., nightshift workers dismantle a scaffold and dayshift workers re-erect the same scaffold because someone did not communicate that they still needed the scaffold on the dayshift.) Perception is that supervisors are not “walking the talk.”

Identifier: 24590-WTP-GRN-MGT-18-00004

Related VPP Tenets: *Management Leadership, Employee Involvement*

Interview Questions: What is the Non-Retaliation Process/Policy? Within the last year, have you experienced retaliation for raising safety issue/concern from your immediate supervisor; any WTP/WTCC Managers; your peers; DOE?

Summarized Interview Responses/Opportunities for Improvement:

WTCC needs to outline and clearly communicate the system used for ranking and rating manual employees. WTCC management is still working to regain the trust of employees. The perception still exists that raising concerns affects the manual ranking and rating system. In addition, some employees believe that participation in safety committees also negatively affects the ranking and rating system. WTCC should ensure that the responsibility for maintenance and update of Communication Stations is assigned to a WTCC team member with a point of contact identified. This would allow concerns to be addressed, feedback provided, and a central contact to coordinate these stations. In addition, WTCC should consider posting the Zero Tolerance Policy on the WTCC homepage for employee access.

Perception from craft employees is that retaliation still exists and is ongoing; e.g., ratings are being affected by raising concerns. Work tasks are changed in tune with the weather (i.e., working on the roof in the scorching sun or working outside in the dead of winter when there are tasks that need to be done inside during these extreme weather instances).

Identifier: 24590-WTP-GRN-MGT-18-00005

Related VPP Tenets: *Management Leadership, Employee Involvement*

Interview Questions: Safety Orientation for New Employees...When/Where/Who? What benefits are there to having VPP Star Status?

Summarized Interview Responses/Opportunities for Improvement:

Safety orientation is completed for both town and site (brown badge) employees. Senior management and employees discussed that the onboard training is outdated and needs

improvement. This could be improved by updating the current WTCC Safety and Quality committees, the VPP and ISMS efforts, discussing ways to get involved, and demonstrating management commitment to safety and health. This improvement should be updated through the WTCC Training department.

Identifier: 24590-WTP-GRN-MGT-18-00006

Related VPP Tenet: *Employee Involvement*

Interview Questions: Have you ever been a member of a safety committee? Do you feel you have your supervisors support and encouragement to join a committee?

Summarized Interview Responses/Opportunities for Improvement:

WTCC should continue to encourage WTCC employees to become actively involved in safety and quality committees through the area safety teams and standing committees. The expectation of participation should be clearly communicated and reiterated by all levels of management from management, supervision, superintendents, and foremen. WTCC should continue this improvement action as outlined in the 2017 WTCC VPP Improvement Plan.

Identifier: 24590-WTP-GRN-MGT-18-00007

Related VPP Tenet: *Employee Involvement*

Interview Question: How or what would you like for recognition?

Summarized Interview Responses/Opportunities for Improvement:

Most employees said they would like the "Safety Token" program back; they feel like they do not see items like coats, sweatshirts, or hats given anymore. Employees would also like to see things like candy, gift cards, and bonus checks. WTCC needs to work with BNI/WTP to review, update, and revise the *WTP Employee Recognition Program* guide to include the WTCC safety and quality committees, management recognition programs, and WTCC safety initiatives and campaigns recognizing employees for positive behaviors.

Identifier: 24590-WTP-GRN-MGT-18-00008

Related VPP Tenet: *Worksite Analysis*

Interview Questions: Have they provided an adequate program of protection for you? Do you think that Management has a good understanding of the hazards?

Summarized Interview Responses/Opportunities for Improvement:

Manual employees interviewed state that they are confident in reporting known hazards without fear of reprisal. Employees identified many methods used to report unsafe conditions and hazards.

Employees indicated a lack of confidence in management's ability to understand the hazards. An example of this was the addition of doors in the Low-Activity Waste (LAW) area that increased the potential hazards. In addition, management's decision to change the scaffold yard created additional

hazards due to increased truck and material handling traffic near trailers where nonmanual employees reside.

Identifier: 24590-WTP-GRN-MGT-18-00009

Related VPP Tenet: *Worksite Analysis*

Interview Questions: Do you understand and have you been a part of accident investigation? Where is the next accident going to happen?

Summarized Interview Responses/Opportunities for Improvement:

Employees interviewed stated that they are involved with accident investigations and they are aware that there are written procedures in place to govern the process. Methods are in place to flow down information to all employees via plan of the day meetings and Safely Speaking meetings. Some employees showed concern for the timeliness of getting the information. In addition, the degree of and opportunity for craft employee participation in accident investigations is not as robust as preferred by the Safety and Health professional interviewed in this assessment. An interviewee stated that at one time, the investigations were more inclusive, which was very beneficial.

Identifier: 24590-WTP-GRN-MGT-18-00010

Related VPP Tenet: Hazard Prevention & Control

Interview Questions: Do you feel like the injury reporting process is necessary or cumbersome? Do you feel it affects reporting injuries?

Summarized Interview Responses/Opportunities for Improvement:

There was about a 50/50 split of employees that stated the injury reporting process was necessary and that they understood why it is so cumbersome. These employees stated that it did not deter them from reporting injuries, nor that it would affect their craft rating. The other half felt that the process was too cumbersome and did affect when they would report. There were several employees that stated they felt that reporting injuries does directly affect their craft ratings.

Identifier: 24590-WTP-GRN-MGT-18-00011

Related VPP Tenet: Hazard Prevention & Control

Interview Question: Do you feel safety violations are treated fairly between craft and non-manual?

Summarized Interview Responses/Opportunities for Improvement:

A significant portion of the employees interviewed believe that craft and non-manual employees are not treated equally regarding violations of safety procedures. The common belief is that craft employees will get fired and non-manuals just get sent back to training or written up.

8 Documents Reviewed/Referenced

24590-MGT-F00085, *WTP Human Performance Improvement Analysis for Event Investigation (form)*

24590-WTP-GPG-CTRG-002, *Training Program Analysis Guide*

24590-WTP-GPG-CTRG-003, *Training Program Design Guide*

24590-WTP-GPG-CTRG-004, *Training Course Development Guide*

24590-WTP-GPG-CTRG-005, *Training Program Implementation Guide*

24590-WTP-GPG-CTRG-006, *Training Program Evaluation Guide*

24590-WTP-GPG-RAHR-HR-0005, *WTP Employee Recognition Program*

24590-WTP-GPG-RAOP-OP-0005, *Management Observation Program*

24590-WTP-GPP-CON-7105, *Subcontractor Submittals*

24590-WTP-GPP-COPS-022, *Senior Supervisory Watch (SSW)*

24590-WTP-GPP-CTRG-004, *Instructor Training Program Description*

24590-WTP-GPP-CTRG-007, *Commissioning and Operations Training Manual*

24590-WTP-GPP-CTRG-009, *Procedure Based Job Analysis for Training*

24590-WTP-GPP-GPX-00503, *Award*

24590-WTP-GPP-GPX-00605, *Terminations for Convenience and Default*

24590-WTP-GPP-RACA-AM-0002, *WTP Assessments*

24590-WTP-GPP-RAPS-PS-3005, *Prequalification of Bidders and Bid List Development*

24590-WTP-GPP-RATR-TR-1000, *Training Program Administration*

24590-WTP-GPP-RAWS-OM-0021, *Employee Job Task Analysis (EJTA)*

24590-WTP-GPP-SIND-025, *Personal Protective Equipment*

24590-WTP-GPP-WPHA-001, *Work Control and Work Packaging*

24590-WTP-GPP-WPHA-002, *Hazard Analysis and Control*

24590-WTP-ISMSD-ESH-01-001, *WTP Project Integrated Safety Management System Description*

24590-WTP-LIST-RATQ-TQ-0001, *List of Qualified Positions in Accordance with DOE Order 426.2*

24590-WTP-PD-RAMS-MA-0001, *Human Performance Improvement Program Description*

24590-WTP-PD-RATR-TR-0001, *Project Training Program Description*

24590-WTP-PD-RAWS-WS-0001, *Worker Safety and Health Program Description*

24590-WTP-PD-RAWS-WS-0002, *Worker Safety Program Description*

24590-WTP-PL-RAWS-WS-0003, *Worker Safety and Health Requirement Area Training Plan*

24590-WTP-PL-TR-01-002, *Training and Qualification Plan*

24590-WTP-SAR-CON-17-0010, *VPP 2017 Self-Assessment - WTP Construction Site*

24590-WTP-TFC-RATR-TR-001, *Education and Experience Verification*

24590-WTP-TFC-RATR-TR-002, *Education and Experience*

24950-WTP-G63-RAWS-WS-0001, *Hanford Tank Waste Treatment and Immobilization Plan Worker S&H Policy*

26030-MP-17-00007, *Executive Safety Review Board (ESRB)*

26030-MP-17-00008, *VPP Action Team (VAT)*

26030-MP-17-00009, *WTCC Safety and Quality Committees*

CCN 296889, letter, MB Moury (DOE-HQ) to MG McCullough (BNI), *DOE-VPP BNI WTP Construction Site Report from the DOE VPP Onsite Review, October 25-November 3, 2016, p. v. 03* March 2017.

CCN 298523, letter, MB Moury (DOE-HQ) to WS Oxenford (WTCC), *Transfer of VPP Conditional Star from BNI to WTCC*. 16 May 2017.

U.S. Department of Energy, *DOE-VPP Part I: Program Elements* document, Revised May 2012.

WTCC-PL-17-00001, *WTCC VPP Improvement Plan*