Inside the bottle change tent, 217-AP, which supports the DST upgrades. 
Photo courtesy of Gregory N. Hanson.
1. CHEMICAL PROTECTION PROGRAM OFFICE (CPPO) ACTIVITIES STATUS

In coordination with the Industrial Hygiene and the Environmental, Safety, Health and Quality (ESH&Q) Chemical Protection Integration Manager, the first five of the nine-part presentation providing an overview of the Industrial Hygiene exposure assessment process and activities specifically related to addressing chemical vapors at the tank farms were finalized. The remaining four presentations are in various stages of draft.

CPPO Oversight and Tracking
THE CPPO NOTEBOOK
The CPPO Notebook, a presentation on current vapors-related topics of interest, is distributed on a weekly basis to over 300 WRPS managers. Four Notebooks were released in January:

- A two-part series on Dimethyl Mercury
- The out brief presentation that EA-32 provided at the end of their recent visit
- The IH results from the 242 A Evaporator Campaign EC-07

The recipients of the Notebook are asked to alert the CPPO of their intention to use the Notebook with their staff via a voting button embedded in the email. Since the Notebook is frequently used several weeks after distribution, the data regarding the utilization of individual editions may change over time. To date, the data for January shows an average of 21 managers making use of the Notebook each week, slightly more than the month before. Utilization of the CPPO Notebooks by subject and transmission date is shown in Figure 1. Since the beginning of FY2018, WRPS managers voted their intention to utilize the Notebook with their workers 322 times.
Figure 1. FY2018 CPPO Notebook Use via Manager Self-report through January 2018
Available to all WRPS staff via the intranet, is the subject matter expert (SME)-narrated video presentation of each week’s Notebook. **Figure 2** shows the monthly website traffic statistics to the CPPO Multimedia Library since the beginning of the fiscal year. The data suggests many more people are utilizing the CPPO Notebook than there are managers reporting their intention to do so.

**Figure 2.** CPPO Notebook Narrated File Use through FY2018 January
CPPO REQUESTS AND PRODUCTION METRICS

The CPPO routinely summarizes complex, technical vapors-related information and provides monitoring results, report summaries, presentations, a weekly report on WRPS vapors activities, and other information for distribution to the workforce through established mechanisms such as the Solutions newsletter and the HanfordVapors.com website. As the information products requested from the CPPO are incorporated into the CPPO Look Ahead, they more closely align with those completed each month. Tables 1 and 2 show the productivity of the CPPO in producing vapor-related materials over the course of the month and the three month trend. In addition to the CPPO Notebook and CPPO Weekly Report, several report/data summaries were delivered this month. Notably, the 2018 Vapors Information Effectiveness Survey was also delivered to the workforce in January. The analysis will be used to drive further improvements in providing vapors-related information to meet the needs of the workforce.

Table 1. CPPO Vapors Information Products Completed - Three Month Trend and Fiscal Year-to-Date

<table>
<thead>
<tr>
<th>CPPO Vapors Information Products Completed FY18</th>
<th>November</th>
<th>December</th>
<th>January</th>
<th>FY-to-Date Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Report (Monitoring Data)</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Presentations (includes CPPO Notebook and CVST)</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>CPPO Reports and Weekly Report</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>Information Requests</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Articles, Summaries, and Message Maps</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Surveys, Focus Groups, and Recommended Actions</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Website Requests/Site Updates</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Videos</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Monthly Totals</td>
<td><strong>15</strong></td>
<td><strong>7</strong></td>
<td><strong>17</strong></td>
<td><strong>54</strong></td>
</tr>
</tbody>
</table>

Table 2. CPPO Vapors Information Products Requested - Three Month Trend and Fiscal Year-to-Date

<table>
<thead>
<tr>
<th>CPPO Vapors Information Products Requested FY18</th>
<th>November</th>
<th>December</th>
<th>January</th>
<th>FY-to-Date Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Report (Monitoring Data)</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>19</td>
</tr>
<tr>
<td>Presentations (includes CPPO Notebook)</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>CPPO Reports and Weekly Report</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Information Requests</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>Articles, Summaries, and Message Maps</td>
<td>16</td>
<td>9</td>
<td>5</td>
<td>45</td>
</tr>
<tr>
<td>Surveys, Focus Groups, and Recommended Actions</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>Website Requests/Site Updates</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Videos</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Monthly Totals</td>
<td><strong>45</strong></td>
<td><strong>21</strong></td>
<td><strong>17</strong></td>
<td><strong>134</strong></td>
</tr>
</tbody>
</table>
WRPS VAPORS RELATED COMMUNICATIONS DISTRIBUTION AND TREND

To date, the total number of documented WRPS vapors-related communications provided to the workforce in FY2018 is 2030, as shown in Table 3. The data for January rose from December and includes 505 documented vapors-related communications. Plan-of-the-day (POD) meetings remain the primary source of vapors-related information provided to the workforce, followed by the CPPO Notebook and items posted to the HanfordVapors.com website. Managers frequently report using past editions of the Notebook each month, increasing their utilization beyond the month they are distributed.

Table 3. WRPS Vapors Information Distribution Avenue

<table>
<thead>
<tr>
<th>WRPS Vapors Information Distribution Avenue</th>
<th>November</th>
<th>December</th>
<th>January</th>
<th>FY-to-Date Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Employee Email/Meetings &amp; ESHQ Comm.</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>CPPO Notebook*</td>
<td>102</td>
<td>73</td>
<td>77</td>
<td>396</td>
</tr>
<tr>
<td>CPPO Report and Weekly Report</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>Fact Sheet &amp; Information</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Meeting - CVST *</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Meeting - CVST Sub-team meeting *</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>Meeting - Hanford Advisory Board Briefing *</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Meeting/Briefing*</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>Meeting - Morning/Pre-Shift Brief*</td>
<td>367</td>
<td>301</td>
<td>410</td>
<td>1493</td>
</tr>
<tr>
<td>Presentation*</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Safety Start</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>SOEN</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Solution Article</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Survey and Focus Group</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Tours*</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Website/Individual Inquiry</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Vapors Weekly Update or Website Post</td>
<td>11</td>
<td>26</td>
<td>5</td>
<td>64</td>
</tr>
<tr>
<td>Video</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Monthly Totals</strong></td>
<td><strong>502</strong></td>
<td><strong>412</strong></td>
<td><strong>505</strong></td>
<td><strong>2030</strong></td>
</tr>
</tbody>
</table>

* Face-to-face communication
Figure 3 forecasts the delivery of WRPS vapors-related communications to the workforce in FY2018, including monthly and cumulative estimates. The data trend indicates that WRPS is on track to deliver approximately 5,800 vapors-related communications to the workforce in FY2018 - largely through briefings and face-to-face interactions with the workforce. This number is slightly reduced from last month due to the lower number of vapor-related communications provided in December, affecting the average calculations for out months.

2. COMPREHENSIVE VAPOR ACTION PLAN Key Performance Parameters

KPP 1. Engagement and Effective Measurement

Chemical Protection Engagement: Center for Toxicology and Environmental Health (CTEH)

Working closely with Industrial Hygiene, the CTEH team continued to develop the nine part CPPO Notebook presentation series introducing the workforce to the process used by Industrial Hygiene to assess and control hazards.

Key Performance Parameter 1
Establish a comprehensive vapor management communication plan, engagement processes, and effectiveness measurements.
Chemical Protection Engagement: Chemical Vapors Solutions Teams (CVST)

A Chemical Vapors Solutions Team Meeting was held on February 14, 2018, at 2:00 p.m. Approximately 70 people attended the meeting. The discontinuation of FFAPR use in AP Farms, EIR-2018-009, EIR-2018-10, upcoming transfers, and Chemical Tier Training were topics of discussion.

A CVST New Technology Sub-committee meeting was held on February 14, 2018. Representatives from the Chief Technology Office, IH Field Operations, CPPO, PNNL, Nuclear Chemical Operators, and DOE were in attendance. The meeting provided a comprehensive status on the Autosampler, C2Sense monitor, and Vapor Monitoring and Detection System (VMDS) equipment selection process. In addition to input from the team leader, numerous technical SMEs from WRPS and PNNL contributed to the status. Feedback was received from a number of the representatives on product capabilities and suggestions for improvements. Discussions were held on the importance of communications between different organizations to ensure efforts are not being duplicated.

Chemical Protection Engagement: Communications

Last week’s CPPO Notebook is titled Industrial hygiene exposure assessment: Exposure assessment, part 3 of 9, KPP 3. This week’s CPPO Notebook is titled Industrial hygiene exposure assessment: Risk characterization, Part 1, part 4 of 9, KPP 3.

Solutions, Issue 425, published on February 12, 2018, described a partnership between Washington State University Tri-Cities and WRPS. In addition to a contract to create a high-performance concrete, “WRPS provided a WSU team with an initial contract to procure and program an autonomous vehicle that would be used for measuring vapors, or chemical gases, within the tank farms.”

Hanford Tank Vapors, From the Desk of Mark Lindholm, described how “WRPS, in cooperation with HAMTC, continues to take a very conservative approach to protecting workers from potential exposures to chemical vapors.” In so doing, WRPS is agreeable to the Stoneturn Consultant’s recommendation that “workers halt the use of FFAPRs and continue to use supplied air in AP Farm until additional evaluation is performed.” This Vapors Weekly Update was published February 15, 2018.

The February 15, 2018, Hanford Tank Vapors, Vapors Weekly Update, also included the invitation to read “[t]wo articles published in the Tri-City Herald relating to chemical vapors.” The first article, Helping ill Hanford workers targeted by Senate bill, discusses a Washington state Senate bill to create a task force to examine
Hanford worker’s vapors concerns. The second article, *No fast progress in Hanford vapors lawsuit*, reported on the Hanford vapors lawsuit.

An all-employee email issued on February 15, 2018, reported on the “[u]pcoming weekend DST-to-DST waste transfer,” and the vapors controls utilized therein. Furthermore, the email explained that “[t]hese controls have been reviewed with HAMTC Leadership and with the Chemical Vapors Solution Team (CVST).”

**Chemical Protection Engagement: Hanford Vapors Website Updates**
- Vapors Weekly Update – Feb. 15, 2018
- CPPO Weekly Report - Feb. 15, 2018

**Chemical Protection Engagement: Effectiveness Measures**
The CPPO *FY2018 Vapors Information Effectiveness Survey* was distributed to 702 randomly selected members of the workforce in January; 235 responses have been received – a return rate of approximately 33%. The results have been collated and preliminary evaluation of the data is underway. The results will also be evaluated against the 2017 survey, and will be used to drive continued improvement in the vapors-related information provided to the workforce. The analysis and resulting recommendations will be reported to WRPS, ORP, and to the workforce.

**Chemical Protection Engagement: Worker Feedback**
A CVST New Technology Sub-committee meeting was held on February 14, 2018. Representatives from the Chief Technology Office, IH Field Operations, CPPO, PNNL, Nuclear Chemical Operators, and DOE were in attendance. The meeting provided a comprehensive status on the Autosampler, C2Sense monitor, and VMDS equipment selection process. In addition to input from the team leader, numerous technical SMEs from WRPS and PNNL contributed to the status. Feedback was received from a number of the representatives on product capabilities and suggestions for improvements. Discussions were held on the importance of communications between different organizations to ensure efforts are not being duplicated.

Mr. Jason Vitali petitioned the February 14, 2018 CVST audience for feedback on fugitive emissions, ¹NUCON®, and ²C²Sense® activities.
3. KPPs 2 and 3. IH Technical Basis and IH Program

IH Manual and Technical Basis

Last update 2/8/2018:
Sections 1 and 4, Introduction and Tank Waste Chemical Vapors, of the IH Manual were published on the Industrial Hygiene website, and the following procedures have been issued:

- TFC-ESHQ-S_IH-C-66, Identifying Chemicals of Concern in Hanford Tank Farms
- TFC-ESHQ-S_IH-C-67, Maintenance of the Industrial Hygiene Chemical Vapor Technical Basis
- TFC-ESHQ-S_IH-C-48, Managing Tank Chemical Vapors
- TFC-PLN-34, Industrial Hygiene Exposure Assessment Strategy
- TFC-PLN-174, Industrial Hygiene Chemical Vapor Technical Basis Program Plan

The Industrial Hygiene Chemical Vapor Technical Basis Program Plan “provides a method and process for reviewing, summarizing, updating, and implementing the Hanford Tank Farm Industrial Hygiene Chemical Vapor Technical Basis “(TFC-PLN-174, pg. 2).

Briefings with line organization, all-hands meetings, newsletters, required reading, and other communication avenues have been utilized to communicate the changes to the exposure assessment process, vapors management strategies in the tank farms, and the changes to the IH Technical Basis. IH is continuing to develop IH Manual sections.

Health Process Plan (HPP)

Last update 2/15/2018

The HPP process has transitioned into the TFC-Charter-71 process implementation. The process evaluates the studies conducted in the HPP process. The TFC-Charter 71 process conducts both technical and economic feasibility assessments for the studies with the Proposed TFOELs for Chronic Exposures – COPCs with Regulatory Guidelines (PNNL-26777) and Proposed Acute Exposure Concentration Limits for COPCs with Regulatory Guidelines (PNNL-26850) studies scheduled for review this year.
Leading Indicators
Last update 2/15/2018
The Leading Indicators study now focuses its evaluation on three primary leading indicator compounds. These are ammonia, mercury, and nitrous oxide. The study has developed evaluation methods that compare paired data, and data in which two or more samples were taken simultaneously, to various concentrations. Specifically, the project is using the reference concentrations of $\frac{1}{2}$ of the occupational exposure limit (OEL), the OEL, and the excursion limit (3 times the OEL).

Maintain Industrial Hygiene Program and Institutionalize Vapor Program Requirements
Last update 2/1/2018:
Training bulletin TB-18-01, The New Chemical Worker Training Program, was issued to WRPS as required reading on January 15, 2018. The bulletin introduced Chemical Worker Tier Trainings. Determining that a “tiered approach to training is more effective because less time is spent in training that is not needed for your job requirements,” WRPS created three tiers of training and its commensurate refresher courses. Tier 1: General Chemical Awareness Training, targets all WRPS workers and is available as a standalone computer based training (CBT) for other Hanford Contractors. Tier 1, available since September 2017, covers general chemical and odor awareness. Tier 2 was published this month. It targets all WRPS workers located past the Wye Barricade, is a CBT, and Tier 1 is its prerequisite. Tier 3, which targets workers who enter the tank farms, is pending.

Central Residence for Industrial Hygiene Technicians (IHT)
Last update 2/15/2018
Retrieval Industrial Hygiene Technicians (IHT) and their first-line supervisors will be relocated to a centralized mobile office (MO) building. The MO is slated to house approximately 100 workers. Plans are to install the MO in 200 East area on 4th Street near 218A across from PUREX. The installed and occupied MO will satisfy KPP 3 for retrieval IHTs. The trailer site is at 60% completion. The trailer design was approved by Washington State Labor and Industries.
Air Dispersion Modeling

Last update 1/25/2018: The Dispersion Modeling project team is currently working on Air Pollutant Graphical Environmental Monitoring System (APGEMS) regression tests and test cases; the model updates are complete, but modifications continue as they perform tests and identify fixes or opportunities for improvements, mostly in the software and graphic user interface (GUI). They are also drafting a report to summarize the model, capabilities, limitations, and to provide a quick users guide.

KPP 4. Engineering Controls

A Farm Exhausters

Last update 2/15/2018

For the A Farm concrete pad, the vendor began providing submittals and initiated mobilization activities. Walk downs continued in an effort to confirm the ducting isolation activities.

AW Stack Extension

Last update 2/15/2018

The final (100%) design package was approved. The Plant Forces Work Review (PFWR) was also completed and installation work was awarded to construction crews. Along with the PFWR, the installation statement-of-work (SOW) was approved. In parallel with these activities, efforts were started on preparing the non-rad permit application.

AN Stack Extension

Last update 1/18/2018:

Engineering evaluations to determine the optimum height required for the stack and whether the existing superstructure can support that stack height increase are planned.

3Strobic® Air Dilution Fan

Last update 2/15/2018

For factory acceptance testing, WRPS completed its review of the schedule, welding and nondestructive examination procedures, and drawing submittals provided by Strobic. Equipment procurement continued. Efforts to award the test plan contract for Richland off-site testing continued. Clarifications were requested. The clarifications will be used by the vendors to re-submit their proposals for technical evaluation.
NUCON® Thermal Oxidation Vapor Abatement Unit (VAU)

Last update 2/15/2018

The engineering-scale testing continues to be developed, and the following was accomplished during the reporting period:

- **Terragraphics**
  - Provided information to PNNL for its fire evaluation of the test trailer interior material.
  - Issued a contract to HiLine for the required skid modifications and pipe spool welding for the diesel unit.
  - Performed the final inspection of the test trailer on 2/8/2018. The trailer was delivered to the PNNL test site on 2/9/2018.
  - Continued to work on finalizing a draft of the revised *Functions and Requirements* document.
  - Continued developing the site alternatives for the technical demonstration.
  During the week of January 29, 2018, TerraGraphics presented the results of the site evaluation to the Integrated Project Team (IPT) and received concurrence on the selected tank, which is BY 108. During the week of February 5, 2018, continued work on the technical demonstration conceptual design at BY 108.

- **NUCON®**
  - Continued working on the design and fabrication of the diesel conversion kit. All drawings were completed and submitted for the kit, and the generator was shipped as shown in Figure 4.
  - Continued to develop the analytical equipment being used to support the engineering-scale test. Efforts focused on the following:
    - Confirming sensitivity limits for various compounds by the proton transfer reaction-mass spectrometry (PTR-MS)
    - Confirming that anticipated environmental conditions (humidity, water content, etc.) during the test will not impact operation of the PTR-MS
    - Developing operating procedures for the Fourier-transform infrared spectroscopy (FTIR) and PTR-MS
    - Fitting a cryotrap with the gas chromatograph system to evaluate and understand water management. Continuing to evaluate methods for pre-concentrating samples.
  - Started developing procedures for operating the VAU and sampling interfaces.
  - Developed a list of measuring and test equipment, and initiated the procurement activities.
  - Started preparing the test site to receive the diesel upgrade kit from NUCON and planning for the removal of the propane engine on the current VAU.
  - Started preparing the chemical process permit to support testing.
  - Completed the injection and sampling systems process and instrumentation drawings.
WRPS
- Received the test plan comments from the Washington State Department of Ecology and started working with PNNL to develop responses.
- Efforts are on-going to transfer two AreaRAE instruments to PNNL in support of the engineering-scale test.

Figure 4. NUCON® Diesel Upgrade Kit – Prepared to Ship to WRPS (Photo courtesy of Mr. George Weeks.)

KPP 5. Administrative Controls and Monitoring

Permanent Installation of VMDS Equipment in A and AP Farms

Update:
Numerous activities were on-going last week including:
- Efforts to obtain approvals on the Phase 2 Pilot-Scale Report continue. The report is currently with WRPS for general counsel review.
Efforts are on-going to determine the funding and resources needed to prepare the document that will be used to support VMDS technology development.

Work has started on the A Farm coverage maps.

Work continues on preparing the AN Farm Basis of Design.

Work continued on the AP Farm UV-FTIR turnover to Operations including:

- Development of the Functions & Requirements document, with comments incorporated on the draft document.
- Continued engineering review to specify test gases and starting procurement activities.
- Continued preparation of the ammonia set point calculation.
- Calculations used to support AP Farm turnover were started. These calculations included the heat trace verification, sample pump flow verification and heating/cooling verification.
- Efforts to complete Operational Readiness Checklist items continued.

Work continued on Autosampler modifications, including:

- Preparing the report summarizing development and selection of test gases.
- Procuring test gases.
- Preparing the test procedure that will be used to support integrated testing activities.
- Completing the test plan that will be used to support integrated testing activities.
- Procuring items needed to support assembly of the Autosampler.
- Preparing design drawings for the test bed manifold and Hanford E-Skid.
- Completing of manifold testing procedures.
- Developing the functional requirements for the Autosampler implementation strategy.

Stack and Boundary Monitors

Update:

The 4CEREX® stack monitor support contract proposal was submitted and a technical review is being prepared. The AN Farm and AZ Farm design package reviews continued. The statement-of-work for installing the stack monitor is being finished.

Establishing Safe Unrestricted Boundaries

Last update 2/15/2018

Coordinated with ORP, a draft paper, tentatively titled Comprehensive Vapor Action Plan KPP 5 - Defining the Unrestricted Work Boundary, was developed clarifying how WRPS will define work boundaries in and around the tank farms. This document provides a regulatory basis for the implementation of the tank farm boundaries moving forward for the IH Program. It is in final review by ORP and WRPS IH program staff. During FY2017, WRPS’s subcontractor Kenexis Consulting
Corporation completed three quantitative risk assessments (QRA) designed to assess the probability and likely consequences of an episodic, acute exposure. To support these planned QRAs, all comments have been received for the AN-Tank Farm Basis of Design (BOD), and the BOD for the AY/AZ-Tank Farms has been initiated. All laser scans needed to support the AN and AY/AZ QRAs have been completed, and laser scan data analysis has been initiated.

**Public Address System Update:**
Prior to turning the east area A, AX, and AY Farms over to operations, the last speaker, AX-001, required troubleshooting. Work also continued on activities necessary to turning over the second set of PA systems, AP, C, AN, and AW Farms, to operations. PA systems work continued in the west, including preparing excavation permits and crossing lists for the S, B, T, and U Farms.

**KPP 6. Tank Operations Stewardship**

**Pilot SST Stewardship Program**

*Last update 2/8/2018:*

**SST Remote Monitoring Equipment:**
Efforts continued on the draft TY Farm temperature and surface level design packages, which are nearing completion. In addition to design activities, the majority of the equipment needed to support temperature and surface level installation was received. The *Plant Forces Work Review* to determine who performs installation activities was submitted for review and awarded to Construction forces.

**FY LEAN 2015 Report:**
The second draft of the *SST Stewardship Execution Strategy Document* is currently under review.

**KPP 7. Hierarchy of Controls**

**Cartridge Testing and SCBA Alternatives**

*Last update 2/15/2018*

Headspace sampling at BY Farm was completed the weekend of February 9, 2018. Now that the headspace sampling campaigns are complete, cartridge testing can begin at BY Farm. Cartridge testing will include 3M and MSA power air purifying respirators (PAPR) and cartridges.
Last week, WRPS received a new report from STC. Its report recommends that WRPS refrain from implementing FFAPR use in AP Farm for SEG-2 work activities. The report also recommended that WRPS rescind the approval of FFAPRs in AP Farm for SEG-1 work activities pending further evaluation of data. A February 7, 2018, *Industrial Hygiene Flash* reported that “STC’s concerns are based on the review of stack exhauster sample data (source data) data that shows >50x the OEL for N-nitrosodimethylamine (NDMA) and >8x the OEL for furans in the source. This is based on a conservative assumption that the concentrations in the source could exist in the worker’s breathing zone (not crediting the engineering controls of active ventilation and extended stack height). It is also based on the lack of sufficient information on the adequacy of FFAPR cartridges on furans.” This pause will remain in effect until additional evaluations are completed. Implementation of FFAPRs will continue in SY Farm for SEG 1 and SEG 2 work activities.

**Mobile Laboratory**

**Last update 2/15/2018**

During the reporting period, efforts continued on the following:

- R.J. Lee provided a proposal for continuation of the background study. However, the proposal was not responsive to the SOW and was returned to R.J. Lee for correction. R.J. Lee submitted a revised proposal for continuation of the background study that was responsive to the SOW and WRPS completed the technical evaluation.

- Met with Procurement and Quality Assurance (QA) to discuss the new Mobile Lab Services contract. The initial discussions with QA indicated that TerraGraphics’s QA program may not be mature enough to be awarded the contract. However, subsequent meetings determined that their QA program would probably be acceptable. Although QA and acceptance criteria reviews are still on-going, the current path forward is to complete the requisition.
During the reporting period, the following was accomplished:

- A preliminary version of the C2Sense field demonstration test plan was presented to the IPT and feedback was solicited. The comments were incorporated into the draft test plan and distributed for formal review.
- A market survey was completed, which identified two commercially available, wearable ammonia detectors (with wireless capability) for consideration as candidate technologies to be evaluated in the upcoming field demonstration.

**KPP 8. Medical Support**

**Expanding WRPS Employee Awareness of the Medical and Company Return to Work Processes:**

Last update 2/8/2018: A meeting was held with HAMTC and building trades representatives, during which it was agreed to eliminate the ACE’s exclusion note in TFC-BSM-HR_EM-C-10, Reasonable Accommodations procedure and replace it with, “[e]mployees with minimal or no symptoms and a normal exam may be returned to work with or without restrictions while lab test results are pending.” The HAMTC Safety Lead agreed to take this to the HAMTC President for his concurrence. Once an agreement is reached, a communication plan will be developed and delivered to the workforce.

**Expanding Hanford Worker’s Awareness of Existence and Role of the Washington State Labor & Industries (L&I) Office of the Ombudsman for Injured Workers of Self-Insured Businesses:**

Last update 2/8/2018:

The Office of the Ombudsman is confirmed to be on-site February 26-28, 2018, to meet and talk with Hanford workers regarding any concerns or questions they might have. Meetings will be scheduled on-site and in town to expand the workers’ awareness of the existence and the role of the Ombudsman office. This will be the second series of meetings offered to the Hanford workers. The communication and schedule will be coming from DOE/RL in the next few days so that each contractor can communicate it to their workforce.
1NUCON is a registered trademark of Nucon International, Inc., Columbus, Ohio.
2C₂Sense is a registered trademark by C₂Sense, Inc., Cambridge, Massachusetts.
3Strobic Air is a registered trademark of MPC Inc., Wilmington, Delaware.
4CEREX trademark by TECAN SP, INC. Baldwin Park, California.