

July 7, 2016

WRPS-1603129

Mr. D. E. Molnaa, President
Hanford Atomic Metal Trades Council
1305 Knight Street
Richland, Washington 99352

WASHINGTON RIVER PROTECTION SOLUTIONS' FOLLOW-UP TO HANFORD
ATOMIC METAL TRADES COUNCIL LETTER REGARDING TANK FARM VAPORS
AND WORKER SAFETY DEMANDS AND RECOMMENDATIONS

- References :
1. Letter, M. A. Lindholm, WRPS, to D. E. Molnaa, HAMTC, "Washington River Protection Solutions Response to Hanford Atomic Metal Trades Council Letter Regarding Tank Farm Vapors and Worker Safety," WRPS-1602874, dated June 21, 2016.
 2. Letter, D. E. Molnaa, HAMTC, to M. A. Lindholm, WRPS, and K. Smith, ORP, "Tank Farm Vapors and Worker Safety," 1602400, dated June 20, 2016.

Dear Mr. Molnaa:

Thank you for meeting with me and having forthright discussions regarding your interests. As we discussed, Washington River Protection Solutions (WRPS) has carefully considered the demands and recommendations in your letter of June 20, 2016 (Reference 2). We recognize our responsibility to execute the U. S. Department of Energy (DOE) tank waste cleanup mission safely and with utmost concern for the health and welfare of our workforce. As part of a continuous drive to improve our overall safety posture, WRPS is implementing a comprehensive, multi-faceted program to enhance tank farm worker protection to a level that continues to exceed today's industry and regulatory standards. The tank farm of the future will use enhanced monitoring to the extent that vapor and odor events are analyzed in real-time, entries into tank farm areas are limited, and Self-Contained Breathing Apparatus (SCBA) use is no longer required. Our ongoing efforts are aligned with and more conservative than the recommendations of the Tank Vapors Assessment Team (TVAT), a team comprised of nationally recognized industry experts commissioned to independently review our vapor challenges, along with many of our own management and operations initiatives to improve safety. WRPS has evaluated the feasibility of implementing the actions you propose and, based on our discussion, has outlined an approach that we believe is responsive in meeting the intent of your letter. Many of our activities are aligned with and directly supportive of your letter. Activities already in progress include:

- Chemical cartridge testing is underway which will determine the effectiveness of air purifying cartridges using actual tank headspace vapors. Successful completion of this testing and follow-on implementation will afford workers the opportunity to wear Air Purifying Respirators (APRs) in lieu of SCBA.

- Extensive tank headspace sampling is in progress to validate headspace constituency. Data obtained to date indicates the headspace constituency is consistent with prior sampling and analysis.
- In collaboration with the Pacific Northwest National Laboratory, bench-scale testing has been completed and field deployment of equipment is in progress that we believe will allow us to proactively track the dispersion of vapors, more effectively explain the constituency of odor events, and implement tailored monitoring systems in the high-occupancy work areas. This will provide our workers additional assurance of health and safety. With the data output from these systems, new vapor and odor abatement processes and strategies can be determined and implemented. The broad spectrum of monitoring equipment, which has been procured, and is being tested and evaluated includes:
 - Personal/individual SUMMA bottles (small vacuum bottles for immediate air grab sampling if odor event occurs) and lapel pin monitors to provide personal samples where vapors are suspected
 - Area monitors and arrays to identify vapor plumes
 - Dedicated mobile laboratory spectroscopic monitoring of the tank farm boundaries
- We have worked with our 222-S Laboratory counterparts to establish priority for laboratory analysis of samples taken as a result of vapor and odor events over routine samples.
- Industrial Hygiene (IH) training and our overall IH program have been enhanced and continue to be improved to ensure execution with the same level of rigor, discipline and confidence as our world-class radiological control program.
- We continue to enhance and expand the Chemical Vapors website to make data accessible and readily available to the workforce.
- Engineering controls are being enhanced, such as the installation of new exhauster systems and the addition of improved exhaust stacks.
- Organizational changes, including the Chemical Protection Integration Manager, have been put in place to further drive expeditious implementation of our comprehensive vapors strategy and plan.
- WRPS continues to engage workers in managing our vapors program through active participation in the Chemical Vapors Solution Team and sub-teams.
- Consistent with our efforts to improve communications, WRPS hosted for all employees a demonstration of the multiple technologies being piloted for enhanced monitoring.
- We have worked with our DOE customer to coordinate with the National Institute of Safety and Health (NIOSH) to provide a focused assist visit to provide us with additional insights and recommendations.

Recognizing the backdrop of these many activities and initiatives already underway, WRPS proposes to implement the following additional actions in the spirit of good faith and partnership with the Hanford Atomic Metal Trades Council (HAMTC).

Based on your request that significant waste-disturbing activities only be performed on backshift and weekends, and upon HAMTC approval of a new standard shift supporting operations beginning at 1800 on Thursdays and continuing through 0600 on Mondays, and/or a straight graveyard shift, WRPS will promptly implement this change. To achieve implementation of the

new shift, a similar agreement must also be reached with the Building Trades. The new standard shift would be staffed with approximately 700 personnel and continue at a minimum through completion of the TVAT Phase-1 recommendations. WRPS will work with the DOE and the site medical provider (HPMC) to ensure appropriate support for this shift configuration.

We have initiated the planning and timely execution for establishing job-specific Vapor Reduction Zones at access roads/barricades to limit access of non-essential personnel into these areas during significant waste-disturbing activities. As part of this effort, we plan to establish postings, electronic reader boards and other controls as needed. Additionally, we will ensure communication is provided to all site contractors prior to significant waste disturbing activities. Re-evaluation of these practices will be completed after completion of TVAT Phase-1 implementation actions. We have delayed current plans to deploy additional office trailers near tank farm boundaries pending the results of TVAT Phase-1 actions, thus further reducing personnel occupancy.

We will evaluate activities in an effort to identify those which can be safely and effectively performed using 30-minute bottles in lieu of 60-minute bottles. For the identified activities, we will honor individual requests for the 30-minute bottle within the limits of supply. We are in the process of purchasing additional 30-minute bottles. We will also evaluate our equipment inventory and make any needed changes.

In parallel with these actions, we will request HAMMER and the Chemical Vapor Solutions Team evaluate different SCBA harnesses with the intent of identifying harnesses that are more ergonomic and lighter in weight. We will also evaluate other options that will reduce weight, such as higher pressure bottles that will last longer at a lower weight, and the use of breathing air compressors to provide supplied air while providing desired protection factors.

Based on our technical evaluations, the TVAT report, and the mitigation actions described above, there is no basis for mandating SCBA equipment for routine work activities within double-shell tank farms. We will continue to support and accommodate employees who request voluntary upgrade to SCBA. The approaches described above represent actions that can be implemented expeditiously with your support. I would like to meet with you at your earliest convenience to discuss any necessary clarifications and to work through implementation details before incorporating any changes in working conditions.

Further, as stated above, your approval of the new standard shifts is requested which will allow us to move forward with gaining alignment with the Building Trades and coordinating with DOE.

WRPS is committed to maintaining its strong working partnership with HAMTC in safely delivering the tank farm cleanup mission that is of critical importance to the DOE and all stakeholders. We look forward to continuing our worker engagement and mutually driving

safety improvements, consistent with the successful approach demonstrated by the Chemical Vapors Solution Team. Together we can continue to improve our safety posture beyond existing industry and regulatory expectations, and assure our workers that we are doing everything possible to keep them safe.

Mr. D. E. Molnaa
Page 4
July 7, 2016

WRPS-1603129

If you have any questions please contact me at (509) 376-3492.

Sincerely,

A handwritten signature in black ink, appearing to be 'M. A. Lindholm', written in a cursive style.

M. A. Lindholm
President & Project Manager

TZS:TLF