

Hanford Site Respiratory Protection Program (HSRPP)

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Hanford Site Respiratory Protection Program (HSRPP)

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REV. 1-1 CHANGE SUMMARY

Section	Change Details
2.0	Removed “-8” from the Radiological Assistance Program (RAP) name.
13.2.2, 13.2.4, 14.3, and 17.0	Add reference to 49 CFR Part 180, <i>Continuing Qualification and Maintenance of Packagings</i> .
App A	Updated list of Hanford Site Prime Contractors.
App B	Removed obsolete superscript from Table B-1.

REV. 1 CHANGE SUMMARY

Section	Change Details
General	Updated formatting and clarified language throughout. Updated/added requirements as needed to align with 10 CFR 851, which requires incorporating updated references.
3.7	Updated user responsibilities. Revised some existing items and added items about being clean-shaven, adhering to cartridge change-out schedules, obtaining a new mask fit if significant physical/facial changes occur, notifying supervisor of physical changes, and immediately leaving an area if a user detects odors, irritation, or respirator malfunction.
6.1	Removed paragraph about HAMMER and SOMC coordinating medical clearance related to training activities. Clarified how to accommodate a supervisor with restrictions.
6.2	Clarified Issuer Training requirements: added statement that no fit testing is required for issuing and clarified content of annual HAMMER training and Issuance Station-specific training.
7.0	Clarified what physical/facial changes require a new fit test. Updated fit factor to 500 for a full-face facepiece per ANSI Z88.2-2015.
9.0	Converted a note to bullets about additional considerations for selecting RPE. Moved paragraphs about calculating and applying MUCs from Definitions to this section.
11.0	Section now discusses Issuance. (Previously, it discussed breathing air quality and use, compressors, cylinders, and SCBAs, but those sections have been moved to subsections of Section 13.2.) Paragraphs about training were moved to Section 6.0. Added bullet exempting field trials from issuance requirements.
11.2	Updated sources of verification.

Section	Change Details
11.3	Added subsections about issuing requirements for different types of equipment.
11.4	Added flexibility to maintain issuance logs electronically.
13.2 through 13.2.5	Revised section includes subsections moved from other locations, including the following: supplied air systems, IDLH atmospheres, breathing air quality, compressors, SCBAs, and escape-only/emergency respirators.
13.3	Updated requirements about when attendants are required for portable air systems. Added requirements specific to Scott Carri-Air attendants.
13.4	Clarified requirements for voluntary use. Revised information about voluntary use of filtering facepieces.
14.2	Clarified monthly SCBA inspection requirement to delineate which forms are to be used.
14.3	Added a note that HAMMER is exempt from maintenance and testing procedures. Clarified that instrumentation shall be calibrated according to manufacturer instructions.
14.4	Added clarification about what to do if equipment has received incidental exposure outside the approved temperature range.
14.4.1	Added requirement that supplied air respirator points of connection not in use shall remain covered.
14.4.2	Added storage requirements for SCBA and escape cylinders.
15.0	Streamlined requirements for independent assessments.
16.0	Added requirement to retain breathing-air system inspection and maintenance.
17.0	Updated references.
18.0	Added new section to include forms referenced in the procedure.

This Change Summary contains only the changes made to this revision. Previous Change Summary detailing all historical changes for this document is available by contacting Site Wide Safety Standards (SWSS).

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ATTACHMENT 1: HANFORD SITE RESPIRATORY PROTECTION PROGRAM COMMITTEE CHARTER (REV. 2)45

1.0 PURPOSE

This document establishes an integrated Hanford Site Respiratory Protection Program (HSRPP), herein called the Program.

The purpose of this Program is to provide information and requirements for consistent multi-contractor respiratory protection. These requirements are derived from the following Occupational Safety and Health Administration (OSHA) Code of Federal Regulations (CFR), Department of Energy (DOE) standards, and American National Standards Institute (ANSI) standards:

- 10 CFR 851, *Department of Energy (DOE) Worker Safety and Health Program*
- 29 CFR 1910.134, *Respiratory Protection*, which incorporates 29 CFR 1926.103, *Respiratory Protection*
- ANSI Z88.2-2015, *Respiratory Protection*
- DOE-STD-1167-2003, *Respiratory Acceptance Program for Supplied-Air Suits*

2.0 SCOPE

This Program applies to all Hanford Site Prime Contractors, herein called contractors, and all subcontractors who use respiratory protection.

This Program applies to activities where respiratory protection is required for hazards, including radiological, chemical, particulate, and biological agents, as well as Immediately Dangerous to Life or Health (IDLH) atmospheres (includes oxygen-deficient atmospheres).

The Hanford Mission Essential Services Contract (HMESC) is responsible for supporting the HSRPP Committee and for gathering relevant data and making it available to all contractors through the HSRPP website.

Equivalencies to the Program are addressed in Section 4.0, *Subcontractor Equivalencies*.

For any discrepancies between this Program and the Contractors Labor Agreement (Hanford Atomic Metal Trades Council (HAMTC), Hanford Site Stabilization Agreement (HSSA), etc.) the Labor Agreement applies.

Respirator use during emergency response training, drills, and actual emergency response by the Hanford Fire Department (HFD), Hanford Patrol, and the Radiological Assistance Program (RAP) is covered under their own internal policies and procedures for these specific activities.

3.0 ROLES AND RESPONSIBILITIES

3.1 Hanford Site Contractors

Contractors shall:

- Develop management systems necessary to implement the HSRPP
- Execute the requirements of the Program and flow down those requirements to all subcontractors
- Appoint a Respiratory Protection Program Administrator (RPPA) and:
 - Assign them the authority to ensure the Program's proper and effective implementation
 - Appoint them to the HSRPP Committee
 - Assign them to facilitate the Contractor Respiratory Protection Committee(s)
 - Ensure they maintain competency through professional development (e.g., training, American Industrial Hygiene Conference, DOE RPPA Conference, continuing education) on a minimum annual basis.
- Ensure that each line organization/project has:
 - A Subject Matter Expert (SME) as designated by management with RPPA concurrence
 - A management point of contact
 - A mechanism to verify user qualifications prior to respirator use
 - A trained and qualified respiratory protection issuer
 - A suitable and controlled distribution point
 - Respiratory Protection Equipment (RPE) issuance and control requirements implemented as defined in Section 11.0, *Issuance*, and Section 12.0, *Positive Control of RPE*
- Establish a Contractor Respiratory Protection Committee(s) (also referred to as a lower tier committee) to discuss issues, concerns, or events that occur in the area of respiratory protection. Committees shall include representation of bargaining unit and non-bargaining unit employees and ensure good communication through each group's representative(s) on the HSRPP Committee.

3.2 Hanford Site Respiratory Protection Program Committee

The HSRPP Committee shall be the collective interpretive authority for the HSRPP, as per the Charter (Attachment 1, *Hanford Site Respiratory Protection Program [HSRPP] Committee Charter*).

3.3 Contractor Respiratory Protection Committee

The minimum roles and responsibilities of the Contractor Respiratory Protection Committee(s) (also referred to as a lower tier committee) are as follows.

- Actively seek worker input in regards to the Program
- Meet regularly as necessary, but no less than quarterly, via scheduled meetings
- Design the committee to have representation from both bargaining and non-bargaining employees
- Assist in annual evaluations of the Program
- Assist line management with consistent implementation of the Program
- Review performance, trends, incidents, good practices, lessons learned, and assessments
- Communicate information and provide Program improvement suggestions to the responsible contractor organization
- Raise worker level issues/concerns to the HSRPP Committee, as deemed necessary, through the HSRPP Committee member(s)

3.4 Respiratory Protection Program Administrator

The RPPAs, within their designated contractor, shall:

- Administer and coordinate the Program
- Serve as the interpretive authority for respiratory protection issues
- Track any respiratory protection issues or concerns, maintain and evaluate proposed resolutions, and determine whether issues are submitted to the contractor's corrective action system
- Ensure the quality of compressed gas cylinder or compressor supplied breathing air meets the air quality standards as listed in Section 13.2.2, *Breathing-Air Quality*
- Evaluate new types of RPE that have received National Institute for Occupational Safety and Health (NIOSH) approval
- Approve procurement and use of RPE
- Maintain knowledge of RPE being used on the Hanford Site
- Keep abreast of current issues, advances, and regulations through interacting with other RPPAs, manufacturers, etc.
- Serve as the primary point of contact for the HSRPP Committee for contractor-level issue resolution
- Participate in the HSRPP Committee as primary contractor representative or designate an alternate

- Report any issues or concerns, with wider application requiring further action for resolution, to the HSRPP Committee
- Provide lessons learned and other sources of information to the HSRPP Committee, and others, as appropriate

3.5 Management/Supervision

Individuals with employees under their direct supervision who use RPE are responsible for ensuring:

- A hazard analysis and an exposure assessment are performed and documented prior to work assignments to identify and evaluate hazards to which workers may be exposed. These hazards include: radiological, chemical, particulate, biological agents, and IDLH (including oxygen-deficient) atmospheres.
- Employees know the hazard(s) that require(s) the use of RPE and any job-specific limitations for the assigned equipment.
- Employees are fully qualified, per the Program, to wear respiratory protection before being assigned to work.
- Employees receive RPE that is clean and in good working order.
- Assigned issuers are trained and qualified.
- Adequate supplies are available for issuance of RPE.
- Proper care and use of RPE is enforced.
- Employee training plans are updated with specific RPE annually, or more often if needed.
- Coordination between the facility/project and the RPPA to promptly implement corrective actions for inadequate RPE practices, equipment defects, or other RPE issues at the worksite.
- They are trained annually to the same level of RPE as the workers they directly supervise.
- Cartridge change-out schedules are followed.
- They obtain RPPA concurrence and determination on whether issues are submitted to the contractor's corrective action system.
- SME(s) are designated, with RPPA concurrence.

3.6 Subject Matter Expert

The SME(s), as designated by management with RPPA concurrence, shall be responsible for helping the facility/project they are assigned to:

- Identify, resolve, and document respiratory protection issues (See Section 11.6, *Issues and Concerns*)
- Communicate with projects and management regarding changes in respiratory protection requirements
- Participate in field trials to determine suitability of RPE
- Participate in Program evaluations
- Perform Program responsibilities as delegated by the RPPA

3.7 User

The user shall:

- Meet the qualifications requirements of the Program for the use of RPE (current medical, fit testing, and training)
- Be knowledgeable of RPE selected/prescribed on the signed *Respiratory Protection Form* (A-6005-593) for work activities and ensure RPE requested and issued is correct
- Be clean shaven for training, fit testing, and use of a tight-fitting facepiece
- Provide documentation of medical clearance, fit testing, and/or training as requested by issuer (if this information is not available electronically)
- Inspect and use RPE provided in accordance with the Program
- Perform positive and/or negative seal checks, as applicable, when donning a tight-fitting facepiece
- Adhere to cartridge change-out schedules
- Notify supervisor(s) of physical/facial changes that could affect fit of RPE. Refer to Section 7.0 for examples.
- Obtain a new mask fit if any significant physical/facial changes occur
- Notify supervisor(s) of physical changes that could affect use of RPE and ensure any resulting restriction is documented with Site Occupational Medical Contractor (SOMC).
- Promptly report any issues encountered with RPE and participate in issue resolution as necessary (See Section 11.6, *Issues and Concerns*). When possible, keep equipment in the configuration in which the issue occurred.
- Immediately leave the contaminated area according to established procedures if the user detects contaminant by odor, taste or irritation, if an End of Service

Life Indicator (ESLI) indicates end of cartridge service life or if a respirator malfunction occurs.

- Maintain positive control of RPE in accordance with the Program (See Section 12.0, *Positive Control of Respiratory Protection Equipment*).
- Obtain respiratory protection medical clearance prior to using RPE and follow limitations/restrictions specified by the Site Occupational Medical Contractor (SOMC).
- When corrective lenses are used, wear only approved manufacturer mask spectacle kits specific to the brand and model of respirator.

3.8 Respiratory Protection Issuer

Issuers shall:

- Be trained and qualified
- Confirm user qualifications are current
- Verify and issue required RPE per the *Respiratory Protection Form* (A-6005-593)
- Verify RPE maintenance/expiration dates
- Issue RPE components consistent with the NIOSH-approved configuration
- Ensure documentation for issuance and return is completed
- Perform RPE accountability checks as required and inform management of any issues
- Assist in processing issues and field concerns (See Section 11.6, *Issues and Concerns*)
- Coordinate periodic maintenance
- Restock issuance station equipment and supplies
- Clean/sanitize RPE per manufacturer's recommendations or HSRPP Committee approved methods
- Maintain issuance station positive control

3.9 Training and Fit Testing Provider(s)

The training and fit testing provider(s) shall:

- Develop/update consistent training and fit testing procedures that meet contractor needs
- Comply with manufacturer and regulatory requirements
- Administer/deliver respiratory protection training, respiratory protection issuer training, and fit testing

- Communicate complex wide and manufacturer-specific lessons learned
- Formally review training materials, lesson plans, and course effectiveness at least annually

4.0 SUBCONTRACTOR EQUIVALENCIES

Subcontractors and their workers brought on the Hanford Site for specialized/unique work for 30 working days or less annually and who require RPE not available through this Program may request an RPPA review for equivalency. RPPAs may grant equivalencies to the Program, provided those subcontractor programs have been reviewed and deemed by the RPPA as providing the same level of protection as the HSRPP. The RPPA shall inform the HSRPP Committee of requested and granted equivalencies. The HSRPP Committee shall document granted equivalencies.

5.0 MEDICAL EVALUATION

The employer shall provide a medical evaluation to determine the employee's ability to use RPE. The medical evaluation and qualification shall occur before the employee is fit tested, trained, or required to use RPE in the workplace. The Physician or Other Licensed Health Care Professional (PLHCP) shall conduct a medical evaluation, including any follow-up examination, in accordance with Section E and Appendix C of 29 CFR 1910.134, *Respiratory Protection*, and ANSI Z88.6-2006, *Respiratory Protection – Respirator Use – Physical Qualifications for Personnel*. For the purposes of this Program, the PLHCP is the SOMD.

5.1 Medical Evaluation Process

The contractor shall ensure employees who are required to use RPE are identified and an Employee Job Task Analysis (EJTA) is completed or revised to indicate respirator use. Once the EJTA has been submitted to the SOMC, a respiratory medical evaluation shall be scheduled.

The HSRPP Committee shall communicate the type and weight of RPE worn to the SOMC so an accurate assessment of the employees' ability to perform duties can be made.

The contractor shall communicate the following information to the SOMC so an accurate assessment of the employees' ability to perform duties can be made:

- The anticipated duration and frequency of RPE use
- The expected physical work effort
- Additional protective clothing and equipment to be worn
- Temperature and humidity extremes that may be encountered

Upon receipt of a completed EJTA, the SOMC shall conduct a medical evaluation that includes a medical questionnaire and examination. The SOMD may require medical tests, consultations, or diagnostic procedures as deemed necessary to make a

final determination. Spirometry shall be available in the evaluation of the employees' respiratory protection medical examination.

The medical questionnaire and examinations shall be administered confidentially during the employees' normal working hours or at a time and place convenient to the employee. The SOMC shall administer the medical questionnaire in a manner that ensures that the employee understands its content. The contractor shall provide the employee with an opportunity to discuss the questionnaire and examination results with the SOMD.

The SOMC is responsible for providing the employee and contractor with a written recommendation regarding the employee's ability to use RPE and any limitations, including any requirements for corrective lenses.

The contractor shall rely on the SOMC's recommendation in determining if the employee is medically qualified to use RPE.

5.2 Additional Medical Evaluation

Additional medical evaluations shall be required when changes occur that may negatively impact safe RPE use. For example:

- An employee reports medical signs or symptoms to their supervisor that are related to their ability to use RPE.
- The SOMD, supervisor, or RPPA informs the contractor that an employee needs to be reevaluated.
- Observations made during fit testing or Program evaluation indicate a need for employee reevaluation.
- A change occurs in workplace conditions (e.g., physical work effort, protective clothing, or temperature) that may result in a substantial increase in the physiological burden placed on an employee.

If a negative pressure respirator is to be used, and the SOMD finds a medical condition that may place the employee's health at increased risk, the contractor shall provide a powered air purifying respirator (PAPR), if the SOMD's medical evaluation finds that the employee can use such a respirator. This shall be documented as a medical work restriction.

If a subsequent medical evaluation finds the employee is medically able to use a negative pressure respirator, the contractor is no longer required to provide a PAPR. However, the employee may still request a voluntary upgrade.

6.0 TRAINING

Training consistent with this Program shall be provided by the Volpentest Hazardous Materials Management and Emergency Response (HAMMER) Training and Education Center using the Worker-Trainer Program.

Contractors shall ensure each employee receives initial and annual refresher training thereafter on all RPE the employee is assigned to use. Additional training shall be administered if significant changes to the type of RPE used occur or when a trained employee exhibits a lack of understanding of the proper use of RPE.

Where escape-only respirators are provided, employees assigned to the area shall be trained in their use.

6.1 User Training

RPE training shall be provided in accordance with ANSI Z88.2-2015, *American National Standard for Respiratory Protection*, and 29 CFR 1910.134(k), *Training and Information*, including the elements of user inspection required in 29 CFR 1910.134(h)(3)(ii), *Inspection*.

Employees being trained on RPE that requires the use of a tight-fitting facepiece must be clean shaven prior to the start of training.

It is recommended that employees wear corrective lenses or wear their mask spectacle kits during training. Empty/non-prescription mask frames are available at HAMMER for training purposes.

In addition to OSHA, DOE, and ANSI requirements, HAMMER RPE training shall include, at a minimum, the following:

- Hands-on RPE use
- Completion of a one-on-one practical evaluation on RPE during initial and refresher training with the Worker Trainers
- Information about lessons learned and feedback from the field
- Training on RPE that employees are required to operate or attend (e.g., bottle carts, compressors)
- Response to RPE malfunction

Contractors shall ensure that individuals directly supervising RPE users are trained annually to the same level as their workers to ensure they understand the proper use and limitations of the RPE. Adjustments to this requirement include the following:

- If a supervisor has an accommodated restriction that precludes them from donning a specific piece of RPE during class, their training shall include all other aspects of the RPE.
- Supervisors who do not wear RPE in the field are not required to be fit tested.
- This training is optional for managers who do not exercise direct supervision of the work site activities where RPE is used.

6.2 Issuer Training

Contractors shall designate respiratory protection issuers and ensure they are trained and qualified prior to being assigned issuer duties. Issuers shall receive training on the same RPE that is being issued at their station. Training and qualifications shall be renewed annually and shall utilize issuer involvement during development and delivery. There is no requirement for an Issuer to be fit tested for those respirators that they issue.

Issuers shall receive HAMMER Site-wide Issuer Training and Site-specific Issuer Training.

HAMMER Site-wide Issuer Training course content shall include, at a minimum, specific requirements of this Program, manufacturer requirements, DOE complex lessons learned, blood borne pathogen hazards and controls, and general respirator inspection and assembly.

Issuance Station-specific Issuer Training shall be provided and documented through On the Job Training (OJT) and On the Job Evaluations (OJE). Management shall designate a knowledgeable and qualified issuer(s) and/or SME to provide OJT and OJE. The site-specific issuer qualification courses shall include, at a minimum, all applicable elements of Section 11.0, *Issuance*; Section 12.0, *Positive Control of RPE*; and Section 14.0, *Maintenance and Care of RPE*.

If an issuer no longer exhibits an understanding on the issuance of RPE, one of the following shall be performed:

- He or she shall work with a trained and qualified issuer for reorientation.
- The SME/Management, with RPPA concurrence, shall perform an evaluation to determine if additional training is required.

7.0 FIT TESTING

Consistent application of the mask fitting process is critical to successful implementation of the Program; therefore, fit testing shall be provided by HAMMER.

Fit testing shall be conducted in accordance with the following:

- 29 CFR 1910.134, Appendix A (Parts 1A and 1C), *Fit Testing Procedures (Mandatory)*
- ANSI Z88.2-2015, Section 9, *Respirator Fitting Test*
- Current HAMMER Fit Test Station procedures

Fit testing personnel shall be qualified in accordance with ANSI Z88.10-2010, *Respirator Fit Testing Methods*.

The Program requires a fit factor of at least 500 for a full-face facepiece and at least 100 for a half-face facepiece or filtering facepiece (when required to wear one).

Quantitative fit testing is required for all employees using a tight-fitting facepiece and shall be conducted at least annually. Fit testing is also required if any of the following physical/facial changes occur:

- New facial surgery/scarring
- Weight gain or loss of 10% or 20 pounds, whichever is less
- Significant dental changes (e.g., dentures, braces)
- Facial piercing and/or jewelry in the seal surface
- Any other conditions that may affect facepiece seal

Prior to fit testing, employees shall be medically qualified, clean shaven, and trained on the make and model of the facepiece for which they will be fit tested.

If the respirator becomes unacceptable (e.g., causes irritation or pain) to the employee, the employee shall be given the opportunity to select a different respirator facepiece and be retested.

The employee shall be issued a quantitative fit test card that includes a current picture and indicates the make, model, and size of the facepiece(s) fitted.

It is recommended that employees wear corrective lenses or wear their mask spectacle kits during fit testing. Empty/non-prescription mask frames are provided by HAMMER for fit testing purposes.

8.0 EXPOSURE ASSESSMENT

Contractors shall develop and implement qualitative and/or quantitative exposure assessments. The exposure assessment identifies and evaluates potential respiratory hazards in the workplace, including a reasonable estimate of employee exposures to respiratory hazard(s) and an identification of the contaminants' chemical state and physical form. The following shall be included in the exposure assessment, as appropriate:

- Estimate and/or measurement of the airborne concentrations of chemical or particulate contaminants before selecting RPE.
- Evaluation of the potential need for bioassay monitoring.
- Implementation of monitoring required by applicable OSHA and DOE regulations, and contractor health and safety plans. Maintain or modify RPE requirements, as appropriate, based on monitoring results.
- Use of appropriate work control documents to document the hazard(s) and establish job-based exposure monitoring to be conducted.

After the exposure assessment is completed and implemented, contractors shall periodically validate RPE adequacy, as appropriate.

9.0 SELECTION OF RESPIRATORY PROTECTION EQUIPMENT

RPE shall only be selected after a documented evaluation of engineering and administrative controls. When effective engineering and administrative controls are not feasible, or while they are being instituted, appropriate RPE shall be used pursuant to this Program.

RPE selection shall be based on the documented exposure assessment. Where the employer cannot identify or reasonably estimate the employee exposure, the employer shall choose an atmosphere-supplying respirator with pressure demand regulators and escape provisions.

All respirators shall be certified by NIOSH or approved by DOE (per 10 CFR 851, Appendix A, Section 6(f)). Respirators specifically designed for welding and cutting shall be selected when required by the exposure assessment.

RPE shall be selected from the *Hanford Site Respiratory Protection Program (HSRPP) Approved RPE List*. The list shall be approved and maintained by the HSRPP Committee and located on the HSRPP website. The contractor's RPPA shall approve equipment from the *Hanford Site Respiratory Protection Program (HSRPP) Approved RPE List* for procurement and use. Any addition to or removal from the list shall follow Appendix C, *Addition and Removal Process for the Hanford Site Respiratory Protection Program (HSRPP) Approved Respiratory Protection Equipment (RPE) List*.

RPE shall be selected by the Project IH/RPPA, and either by the Radiological Engineer or a Radiological Work Planner. Selection of RPE shall include:

- Knowledge of conditions expected in the work area, including estimates of potential exposures, using models and current or historical exposure assessment data
- The assigned protection factor (APF) of the respirator that meets or exceeds the required level of employee protection. (See Appendix B, *Assigned Protection Factors Chart*.)
- Capabilities and/or limitations of RPE available for use, such as:
 - Service life – the expected service time of a cartridge or filter, or the amount of breathing air available
 - Worker mobility – limits for hoses may include length, entry and exit points. Bulkiness may limit entry into tight spaces
 - Compatibility with other protective equipment – respirator fit when used with other equipment; e.g. the need for safety glasses, face shield, welding equipment
 - Durability – physical limitations of a specific respirator
 - Comfort factors – respirator fit, weight, breathing resistance and ease of use
 - Compatibility with the environment – for example if flammable, explosive or corrosive substances are present
 - Compatibility with job and workplace performance – for example use of an airline on scaffolding
- Identification of IDLH (including oxygen-deficient) atmospheres

- Additional considerations such as:
 - heat, cold, humidity
 - head impact hazards
 - welding arc
 - splash (skin and eye)
 - eye impact
 - visibility
 - hearing ability

NOTE: *The NIOSH Respirator Decision Logic may be used for guidance. The link is maintained on the HSRPP website.*

RPE for chemical or other non-radiological purposes shall be selected by the Project IH/RPPA and reviewed for concurrence by the Radiological Engineer or Radiological Work Planner.

RPE used for radiological purposes shall be selected by the Radiological Engineer or Radiological Work Planner and reviewed for concurrence by the Project IH/RPPA.

When chemical or other non-radiological hazards are present along with radiological hazards, the Project IH and Radiological Engineer or Radiological Work Planner shall collaborate to select and approve RPE appropriate for the combination of hazards.

The Project IH/RPPA, and either the Radiological Engineer or Radiological Work Planner, shall specify the required respiratory protection on the *Respiratory Protection Form* (A-6005-593), including the type of respiratory protection (e.g., PAPR, airline with escape bottle, Air Purifying Respirator (APR) [full-face or half-face]) and the type of canister/cartridge and change-out schedule to be used.

The user may request an upgrade of RPE, if the upgrade does not produce additional safety hazards. If available and allowed, the option to upgrade shall be included in the work control documents and on the *Respiratory Protection Form* (A-6005-593). Management, or a designee, shall provide the *Respiratory Protection Form* (A-6005-593) to the issuance station and communicate the requirements to the affected workers. The RPF is valid for a maximum of one year.

The Maximum Use Concentration (MUC) is used to select APR with the appropriate level of respiratory protection. The MUC shall not exceed the capabilities of the cartridge.

The MUC for respirators is calculated by multiplying the APF for the respirator by the Occupational Exposure Limit (OEL) of the hazardous substance. The MUC is the upper limit at which the class of respirator is expected to provide protection. Whenever the exposures approach the MUC, then the employer should select the next higher class of respirators for the employees.

Employers must not apply MUCs to IDLH atmospheres; instead, they must use IDLH-approved respirators. When the calculated MUC exceeds the IDLH level for a hazardous

substance, or the performance limits of the cartridge or canister, then employers must set the maximum MUC at that lower limit.

The respiratory protection requirements for emergency response, such as entry for rescue, shall be established in the emergency response plan, where one is required.

10.0 CHANGE-OUT SCHEDULES FOR CANISTERS/CARTRIDGES AND FILTERS

A change-out schedule for chemical canisters/cartridges shall be established based upon an identified gas or vapor hazard. The IH shall develop the change-out schedule based on the results of an exposure assessment for conditions found in the workplace. Use of warning properties as the sole basis for determining change-out schedules is prohibited.

At a minimum, the following influencing factors shall be considered:

- Temperature
- Humidity
- Atmospheric pressure
- Work rate
- Specific contaminants
- Concentration

The change-out schedule shall be developed by the IH. Information used to establish the change-out schedule may include breakthrough test data, recommendations from respirator manufacturers, or substance-specific guidelines available from OSHA.

Chemical canisters/cartridges with an ESLI shall be changed out based on the change-out schedule or the ESLI, whichever comes first. ESLI canister/cartridges require monitoring by the worker. However, if the worker is unable to monitor the ESLI, a coworker shall assist.

The IH shall provide the change-out schedule for the type of canister/cartridge selected by documenting the schedule in the appropriate work control documents and on the *Respiratory Protection Form* (A-6005-593). Management shall ensure the change-out schedule is communicated to the assigned workers.

There is no requirement for a calculated change-out schedule for particulate filter canisters/cartridges. Particulate filters shall be changed out after a maximum of two consecutive shifts or whenever the wearer notices a change in breathing-air resistance.

11.0 ISSUANCE

Issuance stations shall be designated by management (using the *Respiratory Protection Equipment (RPE) Issuance Station Identification Form (A-6006-204)*), approved by the RPPA(s), and maintained in accordance with Section 14.4, *Storage*.

Management shall ensure the following:

- Only trained and qualified issuers are assigned to issue RPE.
- Positive control of the area is maintained, and the area is not open to unauthorized personnel.
- Issuers are made aware of additional needs for future work projects.
- Sufficient RPE is made available for work being performed.
- RPE is issued according to Program requirements. However, RPE used or designated for field trials, respiratory training, and mask fit purposes is exempt from issuance requirements.
- A unique identification number or barcode is assigned for RPE that requires maintenance and/or calibration (or any equipment designated by the RPPA) that is available for use.
 - Equipment shall be tracked and documented using the unique identification number or barcode.
 - RPE removed from service shall be documented using the unique identifier. The responsible manager or RPPA shall be notified when an item is removed from inventory.

11.1 Pre-Issuance Verification

Prior to issuance, user qualification shall be verified. Only RPE identified on the *Respiratory Protection Form (A-6005-593)* shall be issued.

The following respiratory user qualifications shall be verified and current prior to issuance:

- Medical clearance
- Training for the type of RPE requested
- Successful mask fit on make, model, and size of facepiece to be issued

11.2 Sources of Verification

The respiratory user's training, medical, and mask fit qualifications shall be verified. The qualifications may be verified using sources such as, but not limited to:

- Hanford Site Mask Fit card
- Hanford Site Worker Eligibility Tool (HSWET)
- Crystal Reports database

- Original documentation:
 - Training Completion Record (TCR)
 - SOMC medical clearance
- Other RPPA-approved verification sources

11.3 Respiratory Issuing Requirements

11.3.1 Tight Fitting Facepiece

Issuers shall use the mask fit picture to aid in verifying that the user is clean shaven and that physical/facial features have not changed in a way that may affect the fit. Examples of changes include:

- Additional facial hair
- New facial surgery/scarring
- Obvious weight gain or loss
- Significant dental changes (e.g., dentures, braces)
- Facial piercings and/or jewelry in the seal surface area
- Other condition that may affect facepiece seal

11.3.2 Loose Fitting Hood/Helmet

The user shall not have facial hair or other condition that interferes with the neck band on a single bib hood per manufacturer's instructions.

11.4 Respiratory Protection Equipment Issuance Log

A hard copy or electronic log shall be maintained by the issuer for the purpose of tracking issuance and as a method of accountability for return or status of RPE that is issued. At a minimum, the log shall require the following:

- User name
- Applicable unique equipment identifier
- Date issued
- Date of return or status
- Location used
- Canister/cartridge type
- Issuer's initials (or electronic equivalent)
- User's initials or signature (or electronic equivalent)
- Size of mask
- Make and model of RPE

The log may also include, but is not limited to, the following:

- Time issued
- Hanford Identification (HID) Number
- Applicable work control document number
- Mask issuance station location/identification number
- Mask fit expiration date
- Training expiration date
- Medical/physical expiration date

11.5 Length of Issuance

RPE shall be issued for the entry or shift but shall not exceed a maximum of two (2) consecutive (back-to-back) shifts.

Exclusive use RPE is assigned to an individual for a period of time exceeding two (2) consecutive (back-to-back) shifts and shall be approved by the RPPA. An alternate return cycle shall be established, documented, and approved by the RPPA. All requirements for storage, cleaning, and change-out schedules are applicable.

11.6 Issues and Concerns

An issuer and/or SME shall serve as focal points to receive feedback regarding RPE and assist management in reporting issues. Each contractor shall use the *Respiratory Protection Equipment Issues and Concerns Form (A-6006-205)* to report issues; forms shall be forwarded to the RPPA.

The RPPA shall use the form for the purposes of identification, resolution, and trending. Trends shall be discussed and passed along to the appropriate organizations (e.g., training, medical) via the HSRPP Committee. Appropriate information shall be posted on the HSRPP website.

If there is an urgent issue involving RPE, the HSRPP Committee Chair shall be notified immediately. This is in addition to, and does not replace, any required notifications under DOE orders and/or contractor policy.

12.0 POSITIVE CONTROL OF RESPIRATORY PROTECTION EQUIPMENT

The purpose of the positive control of RPE is to limit access and use only to authorized personnel, which is necessary to prevent loss, damage, and/or contamination of RPE. Issuance stations and issuance storage areas shall maintain positive control by:

- Preventing unauthorized personnel from obtaining or issuing RPE
- Being locked or attended by designated personnel

Respiratory users are responsible to:

- Maintain RPE in a sanitary manner and readily identifiable so as to prevent loss, damage, cross contamination, and/or inadvertent use by another user
- Maintain positive control of RPE during the period it is issued to them. During breaks in use (e.g., multiple shifts or lunch), the RPE shall remain under the control of the user or an attendant, or in a temporary storage area (see Section 14.4, *Storage*).

13.0 USE OF RESPIRATORY PROTECTION EQUIPMENT

RPE shall be used in accordance with manufacturer and NIOSH-approved configurations and shall not be modified or altered. Manufacturer labeling and identifying marks shall not be removed and must remain legible.

RPE shall be inspected by the user prior to its use to ensure that it is in proper working condition. Users shall perform positive and negative pressure checks when required.

Respiratory users shall wear tight-fitting facepieces in the same manner they were fit tested.

RPE job aids shall be made available to the user for assistance with inspections, donning, doffing, and use (as applicable). RPE job aids shall be maintained by the HSRPP Committee and located on the HSRPP website.

Nose-cups shall be worn in respirators when specified by the manufacturer.

Anti-fog wipes or solutions approved by the respirator manufacturer may be used to reduce fogging as needed.

If upon entry or during work evolution an employee has difficulty breathing, becomes faint, has nausea, becomes dizzy, or shows other signs of becoming ill, the employee shall be immediately removed from the area and shall doff respiratory protection.

Appropriate surveillance of work area conditions and degree of employee exposure or stress shall be maintained. When there is a change in work area conditions or degree of employee exposure or stress that may affect RPE effectiveness, the employer shall reevaluate the continued effectiveness of the RPE.

13.1 Air-Purifying Respirators

Do not use APRs in IDLH (including oxygen-deficient) atmospheres.

Half-face respirators and filtering facepieces are not applicable for radiation protection use.

When filtering facepieces are prescribed, all medical, fit testing, and training requirements apply.

PAPR hood use shall be evaluated for:

- Physical hazards that could damage or dislodge the hood, such as protruding objects, rapid air movement, or rotating equipment
- Personnel hazards such as space and visibility limitations

- Integration with fall protection (double bibbed hoods shall not be used)
PAPR blowers shall not be worn underneath clothing.

13.2 Atmosphere Supplying Respirators and Associated Equipment

Breathing-air distribution systems shall not be compatible with outlets for non-breathing-air systems (e.g., instruments, air horns, pneumatic equipment). Fixed breathing-air outlets shall be identified "Breathing Air."

No asphyxiating substances shall be introduced into breathing-air lines.

Free air pumps shall be located to prevent the entry of contaminated air into the air supply.

Breathing-air distribution systems shall be inspected, maintained, and operated by trained personnel in accordance with manufacturer instructions.

Carbon monoxide monitors shall be calibrated and maintained according to the manufacturer's recommendations.

The use of purge or bypass air valves to supply continuous air flow into the mask while performing work is prohibited except for emergencies.

Compressed oxygen shall not be used with supplied-air respirators.

Breathing air shall not be used for purposes other than personal health and safety and shall not be used to drive tools, equipment, or instruments. Conversely, air for pneumatic tools shall not be used for breathing air.

Supplied Air Respirators (SARs) are for use in adequately ventilated areas, not IDLH (including oxygen-deficient) atmospheres, unless equipped with escape cylinder provisions. An IH, and either a Radiological Engineer or Radiological Work Planner, shall make the determination if an escape cylinder is required.

13.2.1 Immediately Dangerous to Life or Health (Including Oxygen-Deficient) Atmospheres

When employees are working in IDLH atmosphere with SARs, they shall be equipped with escape cylinders.

Employers shall ensure that:

- HFD provides trained and equipped standby support for effective emergency rescue capability outside the IDLH atmosphere.
- Support personnel located outside the IDLH atmosphere are equipped with appropriate RPE for assisting HFD.
- One employee, at a minimum, is located outside the IDLH atmosphere and has no other duties assigned to them.
 - Visual, voice, or signal line communication shall be maintained between the employee(s) in the IDLH atmosphere and the employee located outside the IDLH atmosphere.

- The employer or employer-authorized designee, once notified, provides necessary assistance appropriate to the situation.

13.2.2 Breathing-Air Quality

Employees using atmosphere-supplying respirators (SAR and SCBA) shall be provided breathing air that meets at least Grade D quality, as specified by the following:

- 29 CFR 1910.134(i), *Breathing Air Quality and Use*
- ANSI Z88.2-2015, *American National Standard for Respiratory Protection*
- Compressed Gas Association (CGA) G-7.1-2011, *Commodity Specification for Air*

TABLE 1: GRADE D BREATHING-AIR CRITERIA

Criterion	Measurement
Oxygen	19.5-23.5% by volume
Hydrocarbon/Oil	<5mg/cubic meter
Odor	Lack of noticeable odor
Carbon Dioxide	<1000 ppm
Carbon Monoxide	<10 ppm

Breathing-air analysis shall be performed by HMESC or Project IH, per SHRP-PRO-OSH-60955, *Industrial Hygiene Equipment Services Breathing Air Analysis*, or an equivalent process approved by the Hanford Site Contractor’s RPPA. The results shall be made available to the Hanford Site Contractor’s RPPA(s) for review.

Compressed air from cylinders used for airline respirators shall have a dew point that does not exceed -45.6°C (-50°F) (Grade D breathing air) at 1 atmosphere pressure.

Compressed air used for SCBA/escape cylinders shall have a dew point of -53.9°C (-65°F) or less.

Compressors used to supply breathing air shall be designed to prevent the entry of contaminated air into the air-supply system with a maximum dew point of 5.5°C or 10°F below the ambient temperature at 1 atmosphere pressure.

Purchased bottled breathing air shall be analyzed upon receipt including verification that the certificate of analysis documents that the air meets Grade D specifications (see Table 1 above). Bottles are identified by lot number and sampling shall be performed by HMESC or Project IH, per SHRP-PRO-OSH-60955, *Industrial Hygiene Equipment Services Breathing Air Analysis*, or an equivalent process approved by the Hanford Site Contractor's RPPA, on at least 10% of each lot.

Pressurized cylinders shall be tested, maintained, and transported in accordance with the Shipping Container Specification Regulations of the Department of Transportation (DOT) (49 CFR Part 173, *General Requirements for Shipments and Packagings*, and 49 CFR Part 178, *Specifications for Packagings*), and be within hydrostatic test limits (49 CFR Part 180, *Continuing Qualification and Maintenance of Packagings*).

Cylinders shall be tagged appropriately as FULL, IN USE, or EMPTY.

13.2.3 Compressors

Compressors used to supply breathing air shall be designed and positioned to prevent the entry of contaminated air into the air-supply system and shall have suitable air purifying sorbent beds and in-line filters to further ensure breathing-air quality. Sorbent beds and filters shall be maintained and replaced or refurbished periodically following the manufacturer's instructions.

Compressors shall be marked/tagged with the most recent change-out date for the sorbent beds and/or filters, as well as the signature of the person authorized by the contractor to perform the change. This information shall be maintained at the compressor.

Contractors shall establish and perform a maintenance schedule for the equipment, including periodic maintenance and replacement or refurbishment of compressor, associated air purifying filter media, pressure regulators, and gauges. This maintenance shall be performed by trained personnel according to manufacturer recommendations.

Breathing air provided by compressors shall be tested prior to use and at an interval of every month when in service. Compressors shall also be tested any time that there is a question of breathing-air quality or when modifications/repairs are conducted. The RPPA shall determine which modifications/repairs will require breathing-air quality testing.

For oil lubricated compressors, a high-temperature or carbon monoxide alarm, or both, shall be used. If only high-temperature alarms are used, the air supply shall be monitored at intervals sufficient to prevent carbon monoxide in breathing air from exceeding 10ppm.

Representative sampling of the compressor air output shall be performed to ensure air quality meets the applicable requirements as part of acceptance testing prior to use.

IH shall ensure a continued high-quality air supply and, to account for any distribution system contamination, take a representative sample at distribution supply points.

The RPPA shall periodically verify use, operation, and testing of compressor systems.

13.2.4 Self-Contained Breathing Apparatus and Escape Cylinders

Pressurized cylinders, including SCBA and escape cylinders, shall be tested and maintained in accordance with the Shipping Container Specification Regulations of the DOT (49 CFR Part 173, *General Requirements for Shipments and Packagings*, and 49 CFR Part 178, *Specifications for Packagings*), and be within hydrostatic test limits (49 CFR Part 180, *Continuing Qualification and Maintenance of Packagings*). (The HFD maintains the SCBA and escape cylinders.)

The HFD maintains the documentation for the Hanford Site on air quality analysis for SCBA/escape cylinders. Sampling shall be performed by HMESC, per SHRP-PRO-OSH-60955, *Industrial Hygiene Equipment Services Breathing Air Analysis*, or an equivalent process approved by the Hanford-Site Contractor's RPPA. The results shall be made available to the Hanford-Site Contractor's RPPA(s) for review.

SCBAs with tight-fitting facepieces are used in pressure demand or positive pressure mode for the following reasons:

- IDLH (including oxygen-deficient) atmospheres
- Entry into unventilated or confined area where exposure conditions have not been evaluated
- The nature and levels of hazardous agents are unknown
- Protection factors are required that cannot be met by APRs, PAPRs, or SARs
- A change-out schedule cannot be established and the cartridge/canister has no ESLI

13.2.5 Escape-Only and Emergency Use Respirators

A hazard assessment shall be performed to determine if, during an emergency, the use of respirators for escape is required and, if so, the appropriate type of respirator for escape shall be selected. An adequate number of escape respirators shall be provided and accessible where they may be needed.

Escape-only respirators are intended only to be used for exit from an emergency situation such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment that may or does result in an uncontrolled significant release of airborne contaminants.

When staged for emergency use, RPE shall be kept easily accessible to the work area, stored in compartments or covered, inspected at least monthly, and clearly marked as containing emergency RPE.

Escape-only respirators and emergency use SCBAs shall not be considered staged until they have been fully assembled and properly inspected on a monthly basis. (Refer to the HSRPP website for the *Monthly Inspections of Escape-Only Respirators* and *Monthly Inspections of Self-Contained Breathing Apparatus*.)

Staged emergency use RPE is exempt from issuing requirements.

13.2.6 Bottle Carts

Bottle cart operators shall follow the *Air Systems™ Breathing Air Bottle Cart Checklist* (A-6004-341) for the Air Systems™ Breathing Air Cart while operating the cart; a current instruction sheet shall be provided with the bottle cart. The operator shall use the instruction sheet as a reference or shall obtain a copy to use for “checking off” each item as it is completed.

Cylinders used for bottle carts shall be verified as Grade D breathing air, colored blue, and permanently and legibly marked “Breathing Air.”

13.2.7 Airline and Components

When airline equipment is in use, at least one trained attendant shall be located outside the respiratory use area to operate the air source and continuously monitor the equipment. The assigned airline attendant shall not be used to provide emergency rescue support required for IDLH (including oxygen-deficient) atmospheres or assigned to other duties.

The airline hose shall be the same brand as the respirator being used (or equivalent approved by the manufacturer) and have Foster/Schrader fittings. Hansen or other manufacturer specified fittings may be used with approval from the contractor’s RPPA and review by the HSRPP Committee. When other fittings are used, the hip disconnect shall be a Foster/Schrader. Airline hoses shall not be used for non-breathing air use, and the fitting chosen shall not be compatible with fittings on non-breathing air gas systems used at the work site.

When breathing-air hoses have been staged at a worksite for an extended period of time, they shall be inspected prior to use to determine if they are still in proper working condition.

The maximum hose length for airline respirators from the point of connection (at the air source or connection box) to the respirator connection is 300 feet, or the manufacturer’s specification, whichever is less.

SARs are for use in adequately ventilated areas, not IDLH or oxygen-deficient atmospheres, unless equipped with escape bottle provisions.

13.3 Portable Air Systems

A portable air system, such as the Scott Carri-Air,TM utilizes an SCBA cylinder to supply air to a respirator. A trained attendant is required when one or more of the following conditions exists:

- Hose length will be greater than 25 feet.
- Work conditions where the alarm will be muffled by other noises regardless of hose length.
- Work will be performed in an IDLH environment or other atmospheres in which the contaminants and/or their concentrations are unknown. See also Section 13.2.1 for other requirements for IDLH atmospheres.

A trained attendant is defined as a person who has completed the Scott Carri-AirTM training and is therefore qualified as a Scott Carri-AirTM user and attendant. When a trained attendant is required, that worker shall not be assigned to monitor multiple Scott Carri-AirTM units without a safety evaluation and concurrence from the Project IH/RPPA, the attendant, and the users. The trained attendant shall be responsible to monitor the air supply and maintain visual and/or audio contact with the worker to notify when the alarm sounds.

The maximum hose length to the respirator connection is 300 feet, or in accordance with the manufacturer's specification, whichever is less.

13.4 Voluntary Use

RPE may be provided to an employee for voluntary use upon request, when respiratory protection is not required, if the use does not produce additional safety hazards. Such use shall be approved by the Project IH/RPPA, and either the Radiological Engineer or Radiological Work Planner. Voluntary use is only allowed for employees who are medically qualified, trained, and fit tested for the RPE requested.

Voluntary use of a filtering facepiece does not require medical qualification or fit testing. Contractors will ensure employees review Appendix D, *Information for Employees Using Respirators When Not Required Under the Standard*, before use.

14.0 MAINTENANCE AND CARE OF RESPIRATORY PROTECTION EQUIPMENT

OSHA regulations and NIOSH certification require that a maintenance and care program be established for RPE. The maintenance and care program shall include:

- Cleaning and Sanitizing
- Inspection
- Maintenance and Repair
- Storage
- Removing RPE from service

14.1 **Cleaning, Sanitizing, or Disinfecting**

Employees shall be provided with RPE that is cleaned, sanitized, or disinfected as recommended by the manufacturer. Only manufacturer-approved products shall be used.

Cleaning, sanitizing, or disinfecting methods shall be approved and documented by the HSRPP Committee. Changes to methods used by individual contractors shall be reviewed and documented by the HSRPP Committee. Methods shall be located on the HSRPP website.

Cleaned RPE and parts that require sanitizing or disinfecting shall be packaged and/or sealed to prevent intrusion of contaminants, dust, and/or insects.

Respirator facepieces, PAPRs, hoods, and regulators shall be cleaned, sanitized, or disinfected as appropriate before being worn by different individuals.

RPE shall be inspected during cleaning to determine if it is in proper working condition, needs replacement of parts, repaired, or discarded.

RPE maintained for emergency use shall be cleaned, sanitized or disinfected after each use, including any donning/doffing that may be required for monthly inspections.

RPE used in fit testing and training shall be cleaned, sanitized, or disinfected as appropriate after each use.

RPE that is contaminated (e.g., radiological, beryllium, asbestos, blood, or vomit) shall be controlled according to established procedures for handling and disposal.

Tight-fitting facepieces shall be cleaned, sanitized, or disinfected by an approved vendor using the procedures in 29 CFR 1910.134, Appendix B-2, *Respirator Cleaning Procedures (Mandatory)*, or procedures recommended by the respirator manufacturer.

Where RPE is assigned to individuals for exclusive use, the facility/project SME shall establish and communicate cleaning, sanitizing, or disinfecting instructions/schedules to the respiratory user to ensure the RPE is maintained in a sanitary condition.

14.2 **Inspection**

Contractors shall ensure all RPE used in routine situations is inspected before each use and during cleaning.

The contractor shall ensure that RPE inspections include the following.

- A check of function, tightness of connections, and the condition of the various parts including, but not limited to, the facepieces, head straps, valves, and connecting tube, as well as cartridges, canisters, or filters
- A check of elastomeric parts for pliability and signs of deterioration

SCBA cylinders shall be maintained in a fully charged state and shall be replaced or refilled when the pressure falls to 90% of the manufacturer's recommended pressure

level. The contractor shall determine that the regulator and warning devices function properly. Monthly inspections shall be performed in accordance with the *Monthly Inspections of Self-Contained Breathing Apparatus*, located on the HSRPP website.

For RPE maintained for emergency use, the contractor shall:

- Certify the RPE by documenting the date the inspection was performed, the name (or signature) of the person who performed the inspection, the findings requiring remedial action, and a serial number or other means of identifying the inspected RPE.
- Provide this information on a tag or label that is attached to the storage compartment for the RPE, is kept with the RPE, or is included in inspection reports stored as paper or electronic files. This information shall be maintained until replaced following a subsequent certification.

All RPE staged for emergency situations shall be inspected at least monthly in accordance with the manufacturer's recommendations and shall be checked for proper function before and after each use. SCBA inspections shall be performed in accordance with the *Monthly Emergency SCBA Inspection* form (A-6006-290) and the *SCBA 12 Month Inspection Sheet* form (A-6006-291).

Emergency escape-only respirators shall be inspected before being carried into the workplace for use.

14.3 Maintenance and Repair

NOTE: *HAMMER training is exempt from PAPR maintenance and testing procedures.*

The RPE maintenance program shall be implemented according to the schedules and procedures established and maintained by the HSRPP Committee. Procedures shall be located on the HSRPP website. These schedules and procedures are developed to ensure that RPE is maintained, at a minimum, in accordance with manufacturer's instructions.

SCBAs, breathing-air regulators, bottle carts, and portable breathing-air manifolds shall be maintained following the established maintenance procedures.

Maintenance to RPE shall only be performed by appropriately trained personnel and shall use only the respirator manufacturers' NIOSH-approved parts.

Reducing and admission valves, regulators, and alarms shall be adjusted or repaired only by the manufacturer or personnel trained by the manufacturer.

Instrumentation for valve, regulator and alarm adjustments and tests shall be calibrated according to manufacturer instructions.

RPE that fails an inspection during maintenance, or is otherwise found to be defective, shall be immediately removed from service and replaced, repaired, or discarded.

SCBA and Escape Cylinders:

- SCBA cylinders and escape cylinders shall be maintained, inspected, and serviced through the HFD or equivalent approved by the RPPA.
- Cylinders shall be hydrostatic tested and maintained through the HFD or equivalent approved by the RPPA, in accordance with:
 - Manufacturer-recommended service life
 - Applicable DOT specifications for shipping containers (49 CFR Part 173, *General Requirements for Shipments and Packagings*; 49 CFR Part 174, *Carriage by Rail*; and 49 CFR Part 178, *Specifications for Packagings and 49 CFR Part 180, Continuing Qualification and Maintenance of Packagings*)

14.4 Storage

RPE (excluding K-cylinders, SCBA cylinders, and escape cylinders) shall be stored in a climate controlled (32° to 110°F) area. Incidental exposure outside this temperature range requires inspection and RPPA concurrence prior to use. All RPE shall be stored in a clean and sanitary manner that shall protect against loss or damage from vibrations, shocks, sunlight, excessive moisture, damaging chemicals, dust, or pests.

Facepieces, hoods, and other components shall be stored to prevent deformation and shall be packaged and/or sealed to prevent intrusion of contaminants, dust, or insects.

Users are responsible to properly store RPE and to maintain it in a clean and functional state during the period that it is issued to them.

For projects where temporary RPE storage during field use is necessary, adequate, identifiable packaging (e.g., resealable bag, respirator bag) and/or storage areas (e.g., attended location, locked office) shall be provided by management.

14.4.1 Breathing-Air Sources Staged for Work

Staged breathing-air sources (bottle carts, breathing-air cylinders, compressors, air pumps, manifolds) and hoses shall be protected in such a manner to prevent intrusion of dust, dirt, debris, insects, or other contaminants, damage, or inclement weather.

When not in use, supplied air respirator points of connection (i.e., fittings, couplings, regulators, etc.) shall be covered to prevent contamination of respirable air-carrying surfaces. Plugs and caps are preferred, but bags are allowed.

14.4.2 Cylinder Storage

The storage requirements for purchased breathing-air cylinders (K-cylinders) are as follows:

- Store breathing-air cylinders in designated areas.

- Do not store in direct sunlight or ambient temperatures above 125°F.
- Ensure valve protection caps or valve outlet caps and/or plugs are in place and hand tight, except when cylinders are secured, in use, or connected for use.
- Secure cylinders to prevent falling or rolling.
- Ensure storage areas are dry, well-ventilated, and made with non-combustible material.
- Avoid prolonged exposure to the ground or to damp environments; avoid sub-surface storage locations.
- Store cylinders in a location that will protect them from objects that may strike or fall on them.
- Store empty cylinders separately from full ones.

The storage requirements for SCBA and escape cylinders are as follows:

- Ensure shelves are able to support cylinders.
- Do not store in direct sunlight or ambient temperatures above 125°F.
- Secure cylinders, whether in service or storage, to prevent falling or rolling.
- Store cylinders in a location that will protect them from objects that may strike or fall on them.
- Store empty cylinders separately from full ones.
- Ensure valve protection caps and/or plugs are in place on all cylinders except for during use or maintenance.
- Ensure valves remain closed except for during use or maintenance, and ensure pressure is maintained to prevent contaminants from entering the cylinders. Do not empty cylinders; cylinders inadvertently emptied shall be removed from service for inspection and cleaning.
- Ensure cylinders emptied for training purposes are capped immediately and filled to prevent internal contamination.

14.5 Respiratory Protection Equipment Removed From Service

RPE determined to no longer be suitable for its intended use shall be removed from inventory and properly disposed of as directed by the RPPA or designee to prevent re-use.

Items no longer needed but suitable for use or salvage will be evaluated by the RPPA or designee to determine whether the materials may be stored, managed as excess property, or discarded.

15.0 PROGRAM EVALUATION

Hanford-Site Contractors, in coordination with their designated RPPA, shall conduct ongoing evaluations and surveillances of the workplace as necessary to ensure that the Program is effective.

Hanford-Site Contractors shall perform both an annual RPPA assessment and a separate 36-month assessment to ensure that they are meeting the intent and purpose of the Program. The annual assessment shall verify that the Program reflects current applicable regulations and that best practices are considered. The separate 36-month assessment shall be conducted by a knowledgeable person not associated with the program.

The contractor may utilize sources of information from third parties or other contractors to supplement their own assessments.

The assessments shall be conducted using the Lines of Inquiry (LOI) that are developed by the HSRPP Committee. The LOI shall include all elements of the Program.

The RPPA shall regularly consult employees required to use RPE to obtain employee views on program effectiveness and to identify any issues. Communication/feedback shall include, but is not limited to:

- Respirator fit (including the ability to use the respirator without interfering with effective workplace performance)
- Appropriate RPE selection for the hazards to which the employee is exposed
- Proper RPE use in workplace conditions the employee encounters
- Proper RPE maintenance
- Communication effectiveness
- Issue resolution

Based on the SOMC medical surveillance program, individuals or groups of employees who exhibit signs or symptoms of exposure shall be assessed by the SOMC, and the results shall be forwarded to the contractor(s) to determine if controls, to include respiratory protection, are effective. Results of the contractor's determination shall be reported to the HSRPP Committee.

When a bioassay measurement is positive (radiological and non-radiological), the responsible organization shall perform an evaluation (excluding non-occupational and non-Hanford exposure). If the responsible organization's evaluation determines that respiratory protection was ineffective or inadequate, the determination and evaluation shall be reported to the HSRPP Committee.

Actions shall be taken to correct deficiencies or findings from any of the above Program Evaluation activities. Deficiencies and findings shall be documented in accordance with the contractors' corrective action system.

16.0 RECORDKEEPING

All records and documentation generated by the Program shall be processed and maintained at the contractor level in accordance with appropriate policies.

At a minimum, the following documentation shall be maintained and kept:

- Emergency response/escape-only respirator and RPE inspections
- Program evaluations and assessments
- Issuance logs
- Training documents
- Medical evaluations
- Fit testing records
- RPE maintenance and testing logs
- Issues and concerns involving RPE
- Current copy of the Program
- Exposure assessment, radiological sampling, and monitoring data records
- Breathing-air system inspection and maintenance
- Breathing-air quality analytical data

17.0 REFERENCES

- 10 CFR 851, *Worker Safety and Health Program*
- 29 CFR 1910.134, *Respiratory Protection*
- 29 CFR 1926.103, *Respiratory Protection*
- 49 CFR Part 173, *General Requirements for Shipments and Packagings*
- 49 CFR Part 174, *Carriage by Rail*
- 49 CFR Part 178, *Specifications for Packagings*
- 49 CFR Part 180, *Continuing Qualification and Maintenance of Packagings*
- ANSI Z88.10-2010, *Respirator Fit Testing Methods*
- ANSI Z88.2-2015, *American National Standard for Respiratory Protection*
- ANSI Z88.6-2006, *Respiratory Protection – Respirator use – Physical Qualifications for Personnel*
- CGA G-7.1-2011, *Commodity Specification for Air*
- DOE-STD-1167-2003, “The Department of Energy Respirator Acceptance Program for Supplied-air Suits,” 10 CFR 851.A6, United States Department of Energy, Washington D.C.
- SHRP-PRO-OSH-60955, *Industrial Hygiene Equipment Services Breathing Air Analysis*

18.0 FORMS

- Air Systems™ Breathing Air Bottle Cart Checklist (A-6004-341)*
- Monthly Emergency SCBA Inspection Form (A-6006-290)*
- Respiratory Protection Equipment Issues and Concerns Form (A-6006-205)*
- Respiratory Protection Form (A-6005-593)*
- Respiratory Protection Equipment (RPE) Issuance Station Identification Form (A-6006-204)*
- SCBA 12 Month Inspection Sheet Form (A-6006-291)*

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APPENDIX A: DEFINITIONS & ACRONYMS

DEFINITIONS

Definitions are derived from NIOSH, OSHA, ANSI, and relevant terms used at the Hanford Site.

Term	Definition
Airline Respirator	An atmosphere-supplying respirator for which the source of breathing air is not designed to be carried by the user.
Air-Purifying Respirator (APR)	A respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through an air-purifying element (e.g., tight-fitting facepieces, PAPRs).
Annual	For all respiratory protection requirements, including medical, training, and mask fitting, annual refers to the exact date of activity completion (e.g., user training that occurred on April 1, 2022, would expire on April 1, 2023).
Assigned Protection Factors (APF)	The workplace level of respiratory protection that a respirator, or class of respirators, is expected to provide to employees when the contractor implements a continuing, effective respiratory protection program. See Appendix B, <i>Assigned Protection Factors Chart</i> .
Atmosphere-Supplying Respirator	A respirator that supplies the user with breathing-air from a source independent of the ambient atmosphere; this includes supplied-air respirators and self-contained breathing apparatus.
Breathing-Air Distribution Systems	Includes, but is not limited to, non-National Institute for Occupational Safety and Health (NIOSH) certified equipment (e.g., compressors, bottle carts, distribution boxes, distribution lines, gauges, and free-air pumps) used to supply breathing-air to NIOSH-approved equipment.
Canister or Cartridge	A NIOSH-approved, air-purifying container/element with a filter, sorbent, and/or catalyst or combination of these items, which removes specific contaminants from the air.
Clean Shaven	The absence of facial hair in the area where the respirator rests against the face.
End of Service Life Indicator (ESLI)	A system that warns the respirator user of the approach of the end of adequate respiratory protection; for example, that the sorbent is approaching saturation or is no longer effective.
Escape-Only Respirator	A respirator intended only for use during emergency egress from a hazardous atmosphere.

Term	Definition
Exclusive Use	Respiratory protection equipment (RPE) assigned to an individual who will maintain control, storage, and cleanliness for a specified period of time as approved by the RPPA.
Filtering Facepiece (Dust Mask)	A negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.
Fit Test	The protocol to quantitatively evaluate the fit of a respirator on an individual.
Fit Factor	A quantitative estimate of the fit of a particular respirator to a specific individual, and typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn.
Hanford Site Prime Contractors	Central Plateau Cleanup Company (CPCCo) Hanford Laboratory Management and Integration (HLMI) Hanford Mission Integration Solutions (HMIS) Inomedic Health Applications (IHA) Occupational Medical Services (OMS) Hanford Tank Waste Operations & Closure (H2C)
Helmet	A rigid respiratory inlet covering that also provides head protection against impact and penetration.
High-Efficiency Particulate Air (HEPA) Filter	A filter that is at least 99.97% efficient in removing particles of 0.3 micrometers in diameter and includes NIOSH filters N100, R100, and P100.
Hood	A respirator (respiratory inlet covering) that completely covers the head and neck and may cover portions of the shoulders and torso.
Immediately Dangerous to Life or Health (IDLH)	An atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere. Oxygen deficient atmospheres (oxygen content of less than 19.5% by volume) are considered IDLH.
Loose-Fitting Facepiece	A respiratory inlet covering that is designed to form a partial seal with the face.
Mask Spectacle Kit	A manufacturer-specified frame for using prescription corrective and/or shaded lenses in a tight-fitting facepiece.

Term	Definition
Maximum Use Concentration (MUC)	The maximum atmospheric concentration of a hazardous substance from which an employee can be expected to be protected when wearing a respirator, and is determined by the assigned protection factor of the respirator or class of respirators and the occupational exposure limit of the hazardous substance. The MUC can be determined mathematically by multiplying the assigned protection factor specified for a respirator by the required occupational exposure limit, short-term exposure limit, or ceiling limit. When no occupational exposure limit is available for a hazardous substance, an employer must determine an MUC on the basis of relevant available information and informed professional judgment.
Negative Pressure Respirator	A respirator in which the air pressure inside the facepiece is negative during inhalation with respect to the ambient air pressure outside the respirator.
Occupational Exposure Limit (OEL)	A generic term used to represent: (1) the concentration or intensity of the agent that is allowable; (2) the time period over which workplace concentrations are averaged to compare with the allowable intensity; (3) the allowable level of a determinant in a biological sample. Some substances may have several OELs (e.g., one for 8 hours, one for 15 minutes, and a not-to-exceed ceiling). OELs include regulated limits (e.g., OSHA's Permissible Exposure Limits [PEL] and Threshold Limit Values [TLV] published by the American Conference of Governmental Industrial Hygienists [ACGIH]).
Positive Control	Prevention of access or use by unauthorized personnel.
Positive Pressure Respirator	A respirator in which the pressure inside the facepiece or hood exceeds the ambient air pressure outside the respirator.
Powered-Air Purifying Respirator (PAPR)	An air-purifying respirator that uses a blower to force the ambient air through an air-purifying filter, cartridge, or canister to the facepiece or hood.
Quantitative Fit Test	An assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.
Respirator	A personal device designed to protect the wearer from the inhalation of hazardous atmospheres.
Respirator Cartridge Shelf Life	The amount of time a respirator cartridge can be stored in its original factory packaging, as instructed by the manufacturer.
Respiratory Cleanliness	<ul style="list-style-type: none"> • No visible debris or foreign material inside the respirator that could interfere with the function of the respirator or present a hazard to the user. • No visible cleaning solution or soap residue on the respirator. • Minimal amounts of dust, lint, etc., are acceptable if they can be easily removed.

Term	Definition
Respiratory Protection Equipment (RPE)	Includes all components of respirator configurations and breathing-air distribution systems.
Respiratory Protection Program Administrator (RPPA)	A qualified individual assigned by the contractor who has responsibility and authority for the management of the Program.
Self-Contained Breathing Apparatus (SCBA)	An atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.
Service Life	The period of time that a respirator, filter or sorbent, or other respiratory equipment provides adequate protection to the wearer.
Site Occupational Medical Contractor (SOMC)	The Site Occupational Medical Contractor (SOMC) provides medical testing and services related to this Program.
Site Occupational Medical Director (SOMD)	The physician or their designee responsible for the overall direction and operation of the site occupational medical program at Hanford. The SOMD is the site Physician or other Licensed Health Care Provider (PLHCP) and is employed by the SOMC.
Supplied-Air Respirator (SAR)	An atmosphere-supplying respirator for which the source of breathing air is not designed to be carried by the user.
Tight-Fitting Facepiece (Mask)	A respiratory facepiece that forms a complete seal with the face; includes half-face and full-face respirators.
User Seal Check	An action conducted by the respirator user to determine if the respirator is properly seated to the face.

ACRONYMS

ACGIH	American Conference of Governmental Industrial Hygienists
ANSI	American National Standards Institute
APF	Assigned Protection Factor
APR	Air Purifying Respirator
CFR	Code of Federal Regulations
CGA	Compressed Gas Association
CWB&CTC	Central Washington Building and Construction Trades Council
DOE	Department of Energy
DOE-HFO	Department of Energy Hanford Field Office
DOT	Department of Transportation
EJTA	Employee Job Task Analysis
ESLI	End-of-Service Life Indicator
HAMMER	Volpentest Hazardous Materials Management and Emergency Response (HAMMER) Federal Training and Education Center
HAMTC	Hanford Atomic Metal Trades Council
HFD	Hanford Fire Department
HID	Hanford Identification (system user number)
HMESC	Hanford Mission Essential Services Contract
HMIS	Hanford Mission Integration Solutions
HSRPP	Hanford Site Respiratory Protection Program
HSSA	Hanford Site Stabilization Agreement
IDLH	Immediately Dangerous to Life or Health
IH	Industrial Hygiene
IHA	Inomedic Health Applications
LOI	Lines of Inquiry
MUC	Maximum Use Concentration
NIOSH	National Institute for Occupational Safety and Health

OEL	Occupational Exposure Limit
OJE	On the Job Evaluation
OJT	On the Job Training
OSHA	Occupational Safety and Health Administration
PAPR	Powered Air-Purifying Respirator
PEL	Permissible Exposure Limit
PLHCP	Physician or Other Licensed Health Care Provider
PPE	Personal Protective Equipment
RAP	Radiological Assistance Program
RPE	Respiratory Protection Equipment
RPPA	Respiratory Protection Program Administrator
SAR	Supplied Air Respirator
SCBA	Self-Contained Breathing Apparatus
SME	Subject Matter Expert
SOMC	Site Occupational Medical Contractor
SOMD	Site Occupational Medical Director
TLV	Threshold Limit Value
WPF	Workplace Protection Factor

APPENDIX B: ASSIGNED PROTECTION FACTORS CHART (29 CFR 1910.134)

TABLE B-1: ASSIGNED PROTECTION FACTORS

Assigned Protection Factors ⁵					
Type of Respirator ^{1,2}	Quarter Mask	Half Mask	Full Facepiece	Helmet/Hood	Loose-fitting Facepiece
1. Air-purifying Respirator (APR)	5	10 ³	50	--	--
2. Powered Air-Purifying Respirator (PAPR)	--	50	1,000	25/1,000 ⁴	25
3. Supplied-Air Respirator (SAR)					
• Demand Mode	--	10	50	--	--
• Continuous Flow Mode	--	50	1,000	25/1,000 ⁴	25
• Pressure-demand or other positive-pressure mode	--	50	1,000	--	--
4. Self-Contained Breathing Apparatus (SCBA)					
• Demand mode	--	10	50	50	--
• Pressure-demand or other positive-pressure mode (e.g., open/closed circuit)	--	--	10,000	10,000	--

Notes:

¹Employers may select respirators assigned for use in higher workplace concentrations of a hazardous substance for use at lower concentrations of that substance, or when required respirator use is independent of concentration.

²The assigned protection factors in Table B-1 are only effective when the employer implements a continuing, effective respirator program as required by 29 CFR 1910.134, including training, fit testing, maintenance, and use requirements.

³This APF category includes filtering facepieces and half masks with elastomeric facepieces.

⁴The employer must have evidence provided by the respirator manufacturer that testing of these respirators demonstrates performance at a level of protection of 1,000 or greater to receive an APF of 1,000. This level of performance can be demonstrated by performing a Workplace Protection Factor (WPF) or Simulated Workplace Protection Factor (SWPF) study or equivalent testing. Absent such testing, all other PAPRs and SARs with helmets/hoods are to be related as loose-fitting facepiece respirators, and receive an APF of 25.

⁵These APFs do not apply to respirators used solely for escape. For escape respirators used in association with specific substances covered by 29 CFR 1910 subpart Z, employers must refer to the appropriate substance-specific standards in that subpart. Escape respirators for other Immediately Dangerous to Life or Health (IDLH) atmospheres are specified by 29 CFR 1910.134 (d)(2)(ii).

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**APPENDIX C: ADDITION AND REMOVAL PROCESS FOR THE HANFORD SITE
RESPIRATORY PROTECTION PROGRAM APPROVED RESPIRATORY
PROTECTION EQUIPMENT LIST**

All equipment added to or removed from the *Hanford Site Respiratory Protection Program (HSRPP) Approved Respiratory Protection Equipment (RPE) List* shall be determined by review and consensus of the HSRPP Committee.

For RPE to be considered for addition to the *HSRPP Approved RPE List* the following process shall be used:

- Identify the need (e.g., update inventory, future need)
- Discuss needs with the Respiratory Protection Program Administrator (RPPA)
- Identify affected parties
- Review of industry to see what's available
- Establish list of primary choices
- Evaluate training impacts
- Define parameters for evaluations and conduct field trials
- Develop criteria for input from affected parties and solicit feedback for review by the HSRPP Committee
- Ensure RPPA presents the HSRPP Committee with data to determine path forward
- Review inventory to determine if the RPE is added or if it replaces a current piece of RPE

If RPE does not exist on site for specialized/unique work, and there is an immediate need, one shall be chosen by the RPPA and presented to the HSRPP Committee for inclusion consideration on the *HSRPP Approved RPE List*.

Consideration for RPE removal from the list may be initiated by annual review, inventory review, contractor request, labor request, or a request from other affected parties.

For RPE to be considered for removal from the list, the following process shall be used.

- Identify the piece of equipment for proposed removal
- Identify the reason for removal and discuss with the RPPA
- Assess the impact of removal
- Identify affected parties and solicit feedback for review by the HSRPP Committee
- Ensure HSRPP Committee reviews data to determine path forward

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**APPENDIX D: INFORMATION FOR EMPLOYEES USING RESPIRATORS WHEN
NOT REQUIRED UNDER THE STANDARD**

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by Occupational Safety and Health Administration (OSHA) standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

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**ATTACHMENT 1: HANFORD SITE RESPIRATORY PROTECTION PROGRAM
COMMITTEE CHARTER (REV. 2)**

The Hanford Site Respiratory Protection Program (HSRPP) Committee is established to serve as the advisory group providing consensus direction for the consistent administration and implementation of the HSRPP, herein called the Program. The participating contractors and organizations are responsible for appointing representatives to the committee.

The Department of Energy Hanford Field Office (DOE-HFO) and affected Contractors acknowledge that a joint committee provides the best approach for implementing a consistent, effective, and compliant interpretation of requirements for the Program. The parties agree to cooperate in a teambuilding manner to ensure that the full intent of the Program is met and will be responsibly carried out by their respective organizations.

1.0 Mission

The mission of the HSRPP Committee is to ensure consistent and standard application of the Program to promote and maintain a safe work environment. The Committee will achieve this consistent approach through sharing best practices, lessons learned, and matters that affect multiple contractors to foster continuous improvement.

2.0 Committee Structure/Membership/Qualification

The Committee shall be comprised of two primary representatives each from the following prime contract to the DOE-HFO.

- 222-S Laboratory Contract
- Central Plateau Cleanup Contract (CPCC)
- Hanford Mission Essential Services Contract (HMESC)
- Integrated Tank Disposition Contract (ITDC)

One representative shall be the contractor's Technical Representative for the HSRPP Program as determined by their contractor; the second representative shall be a Hanford Atomic Metal Trades Council (HAMTC) representative (as appointed by the HAMTC President or delegate).

In addition, one representative each from the following organizations shall be appointed to serve on the Committee:

- Central Washington Building and Construction Trades Council (CWB&CTC) (as approved by the Union President or delegate)
- HAMTC

These representatives comprise the voting membership. An alternate member shall be identified to serve during any absence of a primary representative. The alternate shall have the same authority as the primary representative.

Representatives from Volpentest HAMMER Training and Education Center, Training Department (HAMMER) and the Site Occupational Medical Contractor (SOMC) shall attend meetings as non-voting members to address matters pertaining to their respective areas of

responsibility. An alternate member shall be identified to serve during any absence of a primary representative.

A Committee member's length of duty may be indeterminate, but rotation of representative assignments is encouraged by all parties.

A chair and co-chair shall be elected by a simple majority of the voting membership of the Committee every two years. The chair and co-chair may be reelected to their respective positions.

Meetings shall be open to others to observe and to give their organizations' impact, perspectives, and technical advice for consideration of the voting body, however, participation in consensus decisions resides solely with the Committee members described herein. The Committee has the authority to develop sub-committees and invite ad hoc participants as needed.

Representatives of DOE-HFO shall be invited to participate at each meeting as non-voting attendees.

The HMESC shall provide a recording secretary for the Committee. The recording secretary is a non-voting position that provides administrative support to the chairperson. A facilitator shall be provided by the HMESC as requested by the Committee.

3.0 Functions of the HSRPP Committee

The functions of the Committee shall be:

- Assist the HMESC with the maintenance of the written Program
- Communicate and submit Program changes to DOE-HFO through the HMESC
- Maintain the Committee charter and review annually
- Review and verify that training is consistent and appropriately covers the content of the Program
- Evaluate trends in performance and recommend actions for improvement
- Review respiratory protection related events, issues, and lessons learned as appropriate
- Ensure distribution of lessons learned as necessary
- Maintain communication with the Contractor Respiratory Protection Committees and collaborate to resolve worker level issues, concerns, or events in a way that maintains site-wide consistency
 - Since the core function of a Site-wide Safety Program is “worker protection,” it is imperative to have a structure that fosters and encourages input and feedback from the working level. Affected contractors will convene a working level committee (also referred to as a lower tier committee) to discuss issues, concerns, or events that occur in the area of respiratory protection within their organizations. These working level committees shall include equal representation of bargaining unit (as appointed by the bargaining unit president or delegate) and non-bargaining unit employees and ensure good

communication up through each group's representative(s) on the HSRPP Committee.

- Evaluate and recommend resolution for issues/disputes pertaining to the Program
 - Issues shall not include any actions regarding applicable Collective Bargaining Agreements
- Recommend topics/information for communication to the workforce
- Provide Program status to the Senior Management Team (SMT) and DOE-HFO management when requested

4.0 Roles and Responsibilities

4.1. Chair Roles and Responsibilities

- Schedule meetings
- Facilitate meetings in an orderly fashion
- Limit disruptions
- Ensure meeting agendas are prepared
- Ensure meeting minutes are taken and comments are documented
- Function as a point of contact and spokesperson for the Committee
- Interface with other site-wide safety program committees as necessary
- Ensure action item list is maintained and members complete their assignments in a timely manner
- Coordinate assignments of sub-committee(s)

4.2. Co-Chair Roles and Responsibilities

- Act as the Chair when the Chair is absent
- Perform roles and responsibilities as delegated by the Chair

4.3. Member Roles and Responsibilities

- Provide the chairperson with the identity of an alternate Committee member who is designated as the organizational representative
- Attend and participate in meetings when scheduled or notify their alternate when unable to attend
 - Alternates are responsible to attend and participate in meetings when the primary cannot attend
 - If the primary and alternate are both unable to attend, the Chair shall be notified
- Foster communication between the Committee and affected organizations relative to issue identification, interpretations, and consensus resolution
- Work in good faith toward consensus on issues without compromising safety or Program compliance
- Maintain a safety and requirements focus when addressing issues; avoid facility, craft, job function, or contractor biases when participating in discussions or voting
- Maintain current knowledge of the requirements of the Program
- Participate in issue discussions representing respective organization
- Bring up issues or speak in discussions only after being recognized by the chairperson

- Listen respectfully and refrain from interrupting others
- Refrain from disruptive side conversations

5.0 Meetings

- Meet regularly as necessary, but no less than quarterly, via scheduled meetings
- Hold special meetings to address urgent or emerging issues
- Record and retain meeting minutes and action items, and distribute to the membership, alternates, and DOE-HFO
- Document and maintain record copies of voting decisions

6.0 Meeting Agenda

- The chairperson shall ensure an agenda is prepared for each meeting, using input from the membership, and forward a copy to all members, alternates, and DOE-HFO in advance of the meeting time and date
- Action items shall be assigned and tracked

7.0 Quorum and Voting

The Committee shall be considered to have a quorum when all Committee members who are eligible to vote (or their designated alternates) are present. One or more dissenting votes from the voting membership will be cause for an issue to elevate into a secondary phase of discussion and comment.

8.0 Secondary Phase of Discussion and Issue Resolution

Matters not agreed upon by the Committee through the initial voting process shall be elevated to the secondary phase of discussion. This phase may include up to two additional meetings. Further discussion/investigation beyond the two additional meetings may be conducted if there is unanimous agreement by the Committee.

If consensus cannot be reached by the Committee, the issue may be elevated to the SMT and/or DOE-HFO. The SMT shall provide a status of their resolution process to the Committee at scheduled meetings.

Hanford Site Respiratory Protection Program (HSRPP)

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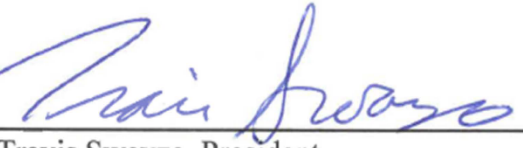
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