# Contractor Requirements Document (Supplemented) Form

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## Section A – Headquarters Contract Requirements Document (CRD):

DOE Order 420.1C, Attachment 1, Attachment 2, and Attachment 3.

## Section B – General Clarifications:

1) Attachment 1, Section 1.c of the CRD states that fire protection for DOE facilities “must comply with applicable national consensus standards, the International Building Code (IBC) and other requirements documented in DOE O 420.1C” The following clarifications are provided:
   a. New facilities and facility modifications must conform to the fire resistance requirements, allowable floor area, building height limitations, and building separations of the IBC. Consistent with Chapter II of the CRD, the provisions of the IBC takes precedence over National Fire Protection Association (NFPA) 5000, Building Construction and Safety Code. Building construction related to egress and life safety shall comply with the NFPA 101, Life Safety Code. Conflicts between the IBC and NFPA 101 related to fire resistance rating shall conform to the more restrictive body of requirements contained in either document. Compliance with the Life Safety Code shall be considered to satisfy the exit requirements of OSHA 29 CFR 1910.
   b. Typically the International Fire Code (IFC) is a companion document to the IBC. However, for DOE operations, the IFC shall only be applied when the generation, treatment, storage, and disposal of ignitable and reactive wastes, defined in DANGEROUS WASTE REGULATIONS, WAC 173-303, is required by the Tri-Party Agreement. The NFPA 1, Fire Code, takes precedence over other situations. Other requirements of the IFC are not considered criteria but may be used as a guide when established criteria do not address a specific situation.
   c. Compliance with the most recent edition of the applicable NFPA Code and Standard shall be required for operational aspects of fire protection. The fire protection related codes and standards in effect when facility final design commences (code of record) remain in effect for the life of the facility. When modifications of a substantial nature occur, as determined by the Authority Having Jurisdiction (AHJ), the current edition of the code shall apply to the modification. EXCEPTION: If there is a significant hazard that endangers building occupants, the public, or the environment as determined by the AHJ, the facility shall be upgraded to the requirements of the current edition of the code or standard as necessary to mitigate the hazard.

2) Attachment 1, Section 1.d. of the CRD states that “Contractors must satisfy the requirements (i.e., mandatory statements) in DOE technical standards and industry codes and standards identified as applicable, unless relief is approved in accordance with Section 2, below.” The following clarifications are provided for DOE-STD-1066-2012.
   a. The DOE-STD-1066-2012 Standard shall be applied with a graded approach. If DOE-STD-1066-2012 conflicts with this Supplemental CRD (SCRD), the SCRD shall be followed.
   b. All “Shall” statements noted in DOE-STD-1066-2012 are required by DOE O 420.1C. An equivalent approach to these requirements can be processed by the local field office.
c. All “Should” statements noted in DOE-STD-1066-2012 will be considered “Shall” unless otherwise noted in this SCRD. The contractor can apply through the local field office for exemption, equivalency, or alternate approach to demonstrate an equivalent level of compliance to these requirements.

d. The application of all other guidance in the standard should be considered. If the guidance is not directly applied, an alternate approach must be described and required in the contractor’s FPP or applicable safety document demonstrating an equivalent level of safety.

3) Attachment 2, Chapter II, Section 3.c.3 (e) of the CRD specifies “a reliable and adequate water supply and distribution system must be provided for fire suppression.” The following clarifications are provided:

a. Distribution mains, either sanitary or raw water, that are being extended to supply water for domestic and/or process water and will provide water for fire suppression systems (sprinklers and/or hydrants), shall be at least 12 inches in diameter. Sectional valves shall be installed in the following manner for new installations and water distribution main upgrades:

b. Multiple sectional isolation valves shall be provided at each intersection between a supply source and a main loop (one valve for each leg).

1. Sectional valves shall be installed in accordance with a point system, such that no more than six points accumulate between sectional valves. The points for this arrangement are: one point for a fire hydrant, and two points for an automatic sprinkler system.

2. For new buildings, each building fire sprinkler riser shall be served by an independent underground water supply connection controlled by a supervised indicating control valve. Multiple system risers supplied by a single supply riser manifold are prohibited. A wet pipe system shall be permitted to supply an auxiliary (secondary) dry pipe, preaction, or deluge system, provided the water supply is adequate (i.e. computer room, loading dock, freezer, etc.)

3. Underground distribution systems for fire protection water supplies shall be of the looped type arranged with two-way flow and sectional valving to provide alternate flow paths from the source to any point in the distribution system for Category 1, 2, and 3 nuclear facilities and buildings or groups of buildings with Maximum Possible Fire Losses (MPFL) totaling over $15 million. The loop shall be provided with a second independent source of water supply for Category 2 Nuclear Facilities or where the MPFL exceeds $50 million. Application of this requirement to existing facilities will be made on a case-by-case basis after consultation with the Richland Operations Office (RL) AHJ.

4. For new facilities, one fire hydrant of the minimum number required, shall be provided within 100 feet of any sprinkler system fire department connection, but no closer than 40 feet from the building. Additional hydrants should be provided and spaced with consideration given to accessibility and obstructions in accordance with the following criteria:

a. A minimum of two operational fire hydrants shall be provided such that parts of the exterior of the building or buildings can be reached by hose lays of not over 300 feet for all Category 2 or 3 nuclear facilities, or where the MPFL exceeds $15 million.

b. A minimum of one fire hydrant shall be provided such that parts of the exterior of the building or buildings can be reached by hose lays of not over 300 feet where the MPFL is $3 million to $15 million.
c. For buildings having a MPFL less than $3 million, the need for fire hydrants shall be based on a documented Hanford Fire Marshal’s Office (HFMO) evaluation as to the effectiveness of adequately controlling a fire without hydrants.

Application of these requirements to existing facilities will be made on a case-by-case basis after consultation with the RL AHJ.

c. Fire flows shall be available for a period of at least two hours. A minimum four-hour supply shall be provided for large buildings, buildings with special public or physical hazards, multiple building sites, or groups of combustible buildings. For combined systems serving fire protection and other water demands (domestic and/or process), the supply and its distribution system shall be adequately sized to serve the combined peak flow for all uses. When storage tanks are used for combined service water and fire protection water, dedicated tank(s) or other physical means, such as a vertical standpipe, shall assure the minimum volume for fire uses.

4) Attachment 2, Chapter II, Section 3.d.2 (a) of the CRD states that, “The contractor must ensure it has access to qualified, trained fire protection staff (that includes FPEs, technicians, and fire-fighting personnel) needed to implement the requirements of this chapter.” The following clarifications are provided:

a. A qualified Fire Protection Engineer (FPE) is an engineer that is a graduate of an accredited university or college with a Bachelor of Science in an engineering or related technical field and meets the qualifications for Professional Member Grade in the Society of Fire Protection Engineers (SFPE), or an engineer that has a Professional Member Grade in the SFPE, or an engineer that is a Registered Professional FPE.

b. An associate fire protection engineer is an engineer that is a graduate of an accredited university or college with a Bachelor of Science in an engineering or related technical field and meets the qualifications for Associate Member in the SFPE.

c. Each prime contractor shall have on staff at least one qualified FPE subject to specific clarifications provided below in this CRD supplemented. Additional qualified FPEs and fire protection staff shall be provided as necessary to perform the functions and meet this CRD.

5) Attachment 2, Chapter II, Section 3.d.2. (d) of the CRD states “If assigned, the contractor must document the level of authority to execute the duties and responsibilities of the AHJ, in accordance with the contractor’s overall fire protection and emergency response programs.” The DOE AHJ is the decision-making authority in matters concerning fire protection. This CRD recognizes two levels of AHJ. RL shall act as the Highest Level AHJ. The Highest Level AHJ in RL is the organizational decision maker affecting any final matter concerning fire protection at RL. The RL AHJ will obtain review and concurrence by the NSD Qualified FPE prior to making final AHJ related decisions, consistent with the RL Integrated Management FPP description. Generally, the RL AHJ will be responsible for review of fire hazard analyses, review/approval of fire safety exemptions and equivalency requests, and final interpretation of RL fire protection policy and code related requirements. The HFMO shall review and concur with all fire safety exemption, variance, and equivalency requests prior to submittal to RL. For approving routine fire protection equipment, materials, installation, operational procedures, and routine fire protection code interpretations the AHJ responsibility resides within the HFMO as delineated in the approved Authority, Responsibilities, Duties, and Enforcement sections of the DOE approved Hanford Fire Marshal Charter.

6) Attachment 2, Chapter II, Section 3.e (1) of the CRD states that “A baseline needs assessment (BNA) of the fire protection and emergency response organization must be conducted.” The following clarification is provided.
a. The Hanford Fire Department is responsible for the preparation and maintenance of the operational BNA documentation consistent with the site mission, hazards and requirements, as described in DOE-STD-1066-2012. The BNA documentation must be reviewed on a minimum three-year basis. If no new hazard is introduced, and an update is not necessary, the rationale must be documented in a letter to RL for approval.

b. Significant changes in Hanford Fire Department service delivery or configuration requires the contractor to perform a formal analysis (i.e. risk assessment, cost-benefit analysis) before the BNA is updated and the changes are implemented. The formal analyses will be based on sound risk management principles and quantify the overall risk to allow for a decision on risk acceptance by the RL Manager. The formal analysis will be sent to the RL for review.

c. Whenever a significant change or new hazard is introduced or a degradation of fire department capability is not covered by the current BNA, the BNA must be updated accordingly. A significant change would be changes in the number or location of fire stations, changes in fire response capability, the addition of, or changes in, major structures, operations, material at risk, etc. The BNA update should be incorporated in the BNA or attached as an appendix. BNA updates shall be written by, qualified individuals with prior experience in all facets of fire department organization, equipment, emergency medical systems, fire suppression, staffing, operations, facility and personnel hazard assessment, unless written relief is given by RL. The BNA updates shall be forwarded to the RL for review. Significant changes to resources and fire department delivery services shall not be made without documented support by the BNA or risk assessment/cost-benefit analysis and without the prior written concurrence of RL.

7) Attachment 2, Chapter II, Section 3.f.1 of the CRD specifies, "Fire hazard analyses (FHA) using a graded approach, must be conducted for the following cases: (1) all hazard category 1, 2, and 3 nuclear facilities and major modifications thereto; (2) facilities that represent unique fire safety risks; (3) new facilities or modifications to existing facilities with value greater than $150 million; and (4) when directed by the responsible DOE authority." The following clarifications are provided:

a. A FHA shall be completed for significant new facilities (new facilities that have a combined building and content replacement value of $25,000,000 or more), a new moderate hazard non-nuclear facility (facility where hazards present considerable potential onsite impacts to people or the environment, but at most only minor offsite impacts), or new high hazard non-nuclear facility (facilities where hazards have a potential for onsite and offsite impacts to large numbers of persons or for major impacts to the environment), existing and new nuclear facilities, and other facilities as defined by DOE O 420.1C. For new facility design, a preliminary FHA shall be completed during Title I (conceptual design) and revised during Title II (definitive design) of the project design process. The preliminary fire hazard analyses developed during the design process shall address to the maximum extent possible the elements required by the final fire hazard analysis. Each individual facility required to have a fire hazard analysis shall have its own fire hazard analysis document. Facility modifications that require a project will not have a stand-alone fire hazard analysis document but must be reflected in the facility fire hazard analysis document.
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b. The FHA must arrive at a conclusion that either the facility meets the fire protection objectives or does not meet the objectives with implementation actions that are required in order for the facility to meet the objectives. The FHA must be documented and show the thought process and assumptions required arriving at the conclusion.

c. The FHA must include an assessment of the risk from fire and related hazards (wildland fire, direct flame impingement, hot gases, smoke mitigation, fire fighting water damage, fire exposure to structural members, etc.) in relationship to existing or proposed fire safety features to ensure that the facility can be safely controlled and stabilized during and after a fire. In accordance with the "graded approach" concept, the level of detail necessary in the FHA is directly related to the complexity of the facility and the potential risk to the public, worker, and the environment.

d. The fire hazard analysis shall not preclude the assumption of a fire occurring when an energy source and a combustible source are present. Average combustible loading as a means to characterize the fire severity shall not be used.

e. For nuclear facilities, the MPFL fire scenario including assumptions for combustible loading and ignition sources, shall be consistent in both the FHA and facility nuclear safety documentation where the FHA author and the safety analyst jointly identify fire-related hazards and evaluate the postulated fire scenario(s). In addition, a more conservative approach can be used in the Documented Safety Analysis (DSA) alone to provide a more bounding analysis. The final FHA shall be referenced by the facility DSA, including the final or interim safety analysis.

f. Fire hazard analyses must be performed under the direction of a qualified FPE.

The final and preliminary fire hazard analyses shall contain, but not be limited to, the following elements:

- Description, basis, and recommended controls for key assumptions
- Description of alternate approaches to program, design, or operational methods described in DOE-STD-1066-2012 demonstrating an equivalent level of safety.
- Description of operations.
- Description of construction.
- Protection of safety class and safety significant equipment.
- Fire protection features.
- Description of fire hazards.
- Life safety considerations.
- Critical process equipment.
- High value property.
- Damage potential: Maximum Credible Fire Loss (MCFL) and MPFL. (See DOE O 231.1B, latest version).
- Fire Department response.
- Recovery potential.
- Potential for a toxic, biological and/or radiation release due to a fire.
- Emergency planning.
- Security considerations related to fire protection.
- Natural hazards (earthquake, flood, wind) impact on fire safety.
- Exposure fire potential, including the potential for fire spread between fire areas.
- Reference the fire department needs assessment baseline document.
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- Deficiencies or "recommendations" that are required to be corrected to meet fire protection objectives.
- Risk of fire and related hazards (direct flame impingement, hot gases, smoke mitigation, fire fighting water damage, etc.) – See DOE-STD-1066-2012, Appendix B.

6) The completed FHA shall be reviewed and concurred by the HFMO before transmittal to DOE.

h. Implementation Plans for fire hazard analyses. The results of a FHA may determine that implementation of "recommendations" or corrective actions to address deficiencies are required in order for the facility to demonstrate that the fire protection objectives of DOE O 420.1C, CRD O 420.1C, Supplemented, latest revision, and life safety are met. Following the approval of the FHA, the contractor shall issue a FHA implementation plan within 60 days. The FHA implementation plan shall describe findings, recommendations, and deficiencies requiring action, and include implementation strategies, funding, and schedules for each item recommended or determined to be deficient by the FHA. The recommendations and corrective actions in the implementation plan shall be developed by a FPE, reviewed by the HFMO, and input into the corrective action system. The FHA implementation plan shall be submitted to the RL Contracting Officer Representative for information only.

i. Maintenance of fire hazard analyses. Fire hazard analyses shall be maintained at the frequency required by DOE O 420.1C to ensure that facility, operations, and hazards are accurately depicted in the FHA.

8) Attachment 2, Chapter II, Section 3.f.2 of the CRD specifies, “Fire protection building assessments must be conducted.” The following clarification is provided. Annual fire protection assessments shall be made for facilities that are valued (combined building and content replacement cost) in excess of $100 million, or in non-nuclear facilities considered to be a high hazard facility. Fire protection assessments shall be made at least every three years for a facility valued at $3 million to $100 million, a non-nuclear facility considered to be a moderate hazard facility, or Category 2 or 3 nuclear facility. Fire protection assessments shall be made at least every five years for facilities valued between $1 million and $3 million. Facilities with a property value of less than $1 million shall not require a fire protection facility assessment that contains the required nature and scope elements contained in DOE-STD-1066-2012, unless significant impacts from programmatic interruption, hazardous materials, or radioactive materials are involved. If such facility assessments are required, they shall be made at least every three years. Assessments will include the elements as contained in DOE-STD-1066-2012. Completed assessments (including the FPP self-assessments) shall be archived and available on the share drive maintained by the HFD.

9) Attachment 2, Chapter III, Section 3.c states for Criticality Safety Program (CSP) that “The program description must be submitted to and approved by DOE.” Contractors shall initially submit the CSP description document to RL for approval. If substantive changes to the contractor’s CSP document are made, the CSP description document shall be revised to reflect the changes and submitted to RL for Approval.

10) Attachment 2, Chapter V, Section 2.b of the CRD Specifies that requirements of this chapter apply to all hazard category 1, 2, and 3 nuclear facilities that have attained operational status and have “Other active systems that perform important to defense-in-depth functions, as designated by facility line management.” These systems, hereafter referred to as “Vital Safety Systems” (VSS), shall be those systems performing an active safety class, safety significant or important defense in depth function as documented in the facility Documented Safety Analysis or the DOE Safety Evaluation Report, generally defined as Important to Safety (ITS).
11) Attachment 2, Chapter V, Section 3.b.2.b of the CRD Specifies; “The level of system documentation detail in configuration management should be tailored to the importance of the system.” A graded approach shall be applied when implementing the requirements for safety systems, particularly for Safety Structures, System, and Components (SSC) designated as important Defense-in-Depth (DID). Commensurate with the safety function received, the level of detail or rigor of an important DID SSC would not necessarily rise to that of a Safety Class (SC)/Safety Significant (SS) SSC, but requires additional detail/rigor than is typically given to a general service SSC.

12) Attachment 2, Chapter V, Section 3.b.3 of the CRD Specifies; “A qualified Cognizant System Engineer (CSE) must be assigned to each active system within the scope of the program.” A primary as well as an alternate CSE shall be assigned to each VSS. A listing of assigned primary and alternate CSEs for each VSS shall be published (i.e. documented, controlled, and maintained), and readily accessible to DOE.

13) Attachment 2, Chapter V, Section 3.c.2 of the CRD Specifies; “System design documents and supporting documents must be identified and kept current using formal change control and work control processes DOE-STD-3024-2011, Content of System Design Description, describes an acceptable methodology to achieve this function. The following clarifications are provided:

a. The DOE-STD-3024-2011 Standard shall be applied with a graded approach.

b. All “Shall” statements in DOE-STD-3024-2011 are required by DOE-O-420.1C. An equivalent approach to these requirements can be processed by the local field office.

c. All “Should” statements noted in DOE-STD-3024-2011 will be considered “Shall” unless otherwise noted in this SCRD. The contractor can apply through the local field office for exemption, equivalency, or alternate approach to demonstrate an equivalent level of compliance to these requirements.

d. The application of all other guidance in the standard should be considered. If the guidance is not directly applied, an alternate approach must be described and required in the contractor’s VSS program or applicable safety document demonstrating an equivalent level of safety.

14) Attachment 2, Chapter V, Section 3.c.3 of the CRD Specifies; “System assessments must include periodic review of system operability, reliability, and material condition.” An assessment on the elements identified in Section 3.c.3 shall be conducted at least annually by the CSE for each VSS. This assessment shall also include a review of the technical bases for the safety functions identified in the DSA. Using a graded approach and/or any current issues, a specific topical focus area of the technical bases shall be performed annually. In addition to the annual CSE assessment, quarterly System Health Reports (SHR) shall be developed to status and trend the operability, reliability and material condition of the VSS. The SHR shall not only examine the elements in CRD Chapter V, section 3.c.3, but also examine the key elements of CRD Chapter V, section 3.d and shall assess system operability and reliability performance including the following elements:

- A system scorecard or health score
- System operational status including key equipment availability
- Maintenance backlog
- Closed and outstanding corrective actions
- Closed and outstanding problem or adverse condition reports
- System deficiencies
- System performance trending
- Material condition assessment including any walkthrough results
- Other significant events and issues
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A key resource in maintaining a consistent and high standard of VSS program implementation, central engineering (or the organization responsible for development of the CSE and VSS program documentation) shall periodically conduct assessments to demonstrate project CSE compliance to the program/procedures and to the high standards set for nuclear safety systems. These compliance assessments shall be conducted annually on some select portions of the VSS program implementation (e.g. management and/or independent assessments) but include at least once every three years a thorough, independent review of each VSS. In addition to examining the elements of Attachment 2, Chapter V, Section 3, the independent assessment shall examine the CSE performance of the annual CSE assessment process.

The annual assessment results, including SHRIs and any central engineering assessments, shall be readily available to RL.

## Section C - Specific Clarifications:

None

## Section D – General Supplemental Requirements:


2) “Should” statements in DOE-STD-1066-2012, sections 4.2.7, 4.4.3, 5.3, and Appendices A, B, D and E will remain “should” statements and will not be considered “shall” in this document. The application of guidance suggested in these sections must be considered. If not covered by an applicable section in this SCRD, an equivalent approach must be described and required by the contractor’s fire protection program (FPP) or applicable safety document, reviewed and approved by RL.

3) New projects and facility design, construction and modifications involving fire alarms systems, fire suppression, or water supplies shall be in accordance with the DOE Fire Protection Handbook, Hanford Chapter (HNF-36174, latest revision).

4) Relocatable structures, defined by DOE-STD-1066-2012, shall comply with DOE-STD-1066-2012 and other applicable requirements specified by this CRD. All references to the word "should" in DOE-STD-1066-2012, Appendix C will be interpreted as a "shall" unless otherwise modified by this document.

5) MPFL values in Fire Assessments and Fire Hazards Analysis (FHA) as described in this CRD and DOE-STD-1066-2012, shall utilize the property valuation and loss estimation guidelines found in DOE O 231.1B (latest revision) Annual Fire Protection Summary Information Reporting Guide. Additionally, the MCFL shall identify the estimated monetary loss assuming the activation of automatic fire suppression and successful fire department response and manual suppression tactics.

6) Conditions, operations, or materials hazardous to life or property pursuant to NFPA 1, Fire Code, Section 1.12, shall be the basis for permits issued through the HFM Permit System. HFM permits shall be obtained and posted (or readily accessible) prior to the proposed activity or configuration.

7) Site fire system inspection, testing, and maintenance (IT&M) frequencies will comply with the NFPA requirements as modified by RL approved exemptions and equivalencies. IT&M frequencies may be extended by a 25% grace period, on a case-by-case basis, in RL facilities, to accommodate facility conflicts when coordinated between and agreed to by the facility manager and the HFM. The “grace period” concept will not apply to specific Surveillance Requirements contained in a Limiting Condition for Operation.
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(LCO) except as specified in the LCO. For entry into the “grace period” the following is required:

a. Facility management shall notify the HFM prior to entry into the “grace period.”

b. The facility manager in consultation with the facility FPE shall develop the appropriate compensatory measures and implement these measures when entry into the “grace period” is commenced.

c. Written justification for entry into the “grace period”, the compensatory measures implemented, and the anticipated completion date must be provided to the HFM within 10 days of entering the “grace period.”

d. The justification for the extension and the implemented compensatory measures will be issued to the responsible Vice President.

IT&M frequency extensions that are necessary beyond the 25% grace period shall also require approval of the local DOE AHJ before facility operations are allowed to continue beyond the grace period.

8) The Hanford Fire Protection Forum (HFPF) is a medium for open discussion of fire protection issues to assist RL in maintaining a uniform FPP on the Hanford Site. The forum is made up of contractor FPEs, managers, staff, designers, fire protection staff, the HFM, fire department staff, fire system maintenance managers and engineers, and the RL FPE. The HFPF is a RL chartered organization. The HFPF writes the duties of the HFM and forwards the Fire Marshal's duties to RL for review and approval. The HFPF is also responsible for the review of all changes to Site-wide fire system ITM requirements and for the maintenance of the Site-specific fire protection design requirements found in HNF-36174, Hanford Chapter of the DOE Fire Protection Handbook. The contractor is expected to provide fire protection representation at the HFPF meetings.

9) Testing of High-Efficiency Particulate Air (HEPA) Filters at the DOE Filter Test Facility (FTF) is intended to ensure that an appropriate level of quality assurance (QA) in the design, integrity and performance of new/replacement HEPA filters used at DOE defense nuclear facilities is achieved and maintained to adequately protect workers and public health and safety. The following HEPA filter testing protocols shall be implemented for defense nuclear facilities, and it is further recommended that these protocols and practices be considered for HEPA filters used at non-defense facilities:

a. Conduct 100 percent QA testing at the DOE FTF of new HEPA filters that are used in confinement ventilation systems for Category 1 and Category 2 nuclear facilities that perform a safety function in accident situations, or are designated as ITS in the context of the safety basis.

b. Conduct 100 percent QA testing at the FTF of HEPA filters necessary for habitability systems, e.g., filters that protect workers who must not evacuate in emergency situations because of the necessity to shut down or control the situation.

c. For all other applications where HEPA filters are used in confinement ventilation systems for radioactive airborne particulate, develop and document an independent tailored filter QA testing program that achieves a high degree of fitness for service. The program should include the testing of a sample of filters at the FTF. The size of the sample to be tested should be large enough to provide sufficient statistical power and significance to assure the required level of performance.

d. The contractor shall designate a HEPA Filter Point-Of-Contact (POC). The HEPA filter POC will be designated to receive HEPA filter-related data/information (i.e. FTF monthly and semi-annual reports) and shall be responsible to disseminate the information to the appropriate contractor organizations (i.e. procurement, quality assurance, engineering etc.) for review or action as determined appropriate. The
HEPA filter POC will also support the RL HEPA filter SME in data/information collection for addressing HEPA filter issues.

10) The Contractor shall have a process in place for the deactivation of fire systems in facilities transitioning from Operations to “Surveillance and Maintenance” or “Deactivation and Decommissioning” that utilizes the guidance of DOE-STD-1066-2012, Section 5.4 and Appendix D, Transitional Facilities, and the applicable requirements of NFPA 801, Standard for Fire Protection for Facilities Handling Radioactive Materials. The contractor's process must be in alignment with the HFD requirements and procedures and be coordinated with the HFMO.

11) Facilities transitioning from unoccupied to occupied status shall be re-evaluated per Section 5.4 and Appendix D of DOE-STD-1066-2012, Chapter 8 of NFPA 801, and Chapters 8, 10, and 11 of NFPA 241, including applicable provisions of the other chapters of these standards in a graded approach to address life safety, fire hazards, and the potential release of hazardous and radiological materials to the environment during occupied activities such as D&D. Facilities transitioning from occupied to unoccupied shall also be evaluated for appropriate life safety provisions to address infrequent entries and associated activities.

Section E – Specific Supplemental Requirements:

1) Hanford Fire Department (HFD) - Fire Protection

The HFD will provide fire suppression, rescue, emergency medical and ambulance services, on-scene incident command structure, and hazardous material responses, that are capable of dealing with and terminating emergency situations, which could threaten the operations, employees, environment, public, or property on the Hanford Site. The HFD shall also:


b. Maintain a qualified Industrial Hygienist on staff to serve as a technical advisor for emergency response, safety requirements, and personal protective equipment purposes.

c. Provide appropriate site wide fire protection system IT&M for fire alarm and fire suppression systems. Comply with the Hanford site lock and tag program, as applicable.

d. Develop and maintain pre-incident plans for fire department emergency response. Credit taken for fire department response in a fire hazard analysis and nuclear safety documentation must be concurred by the fire department.

e. Be the designated incident command agency for the Hanford Site, except during declared security events.

f. Act as the lead emergency medical service provider and communicate with the Occupational Medical Contractor as required by emergency response plans. Operate emergency medical services in accordance with the Mid-Columbia Emergency Medical Services and Trauma Council and their medical program director. In order to maintain mutual aid agreements and maintain consistency in patient packaging and transportation to local emergency medical facilities, oversight of the emergency medical services shall be determined by the Tri-County Emergency Medical Services Council protocols.

g. Maintain the Hanford Fire Protection Forum share drive.

h. Collect and track performance indicator data and coordinate data and corrective actions with other
Hanford contractors.

2) Hanford Fire Marshal (HFM)

The HFM develops and maintains several FPP defining procedures, requirements, and directives used on the Hanford Site and functions as the technical authority for these procedures and directives. Certain Hanford contractors endorsed those procedures and directives and implement them as their FPP. In this capacity the HFM shall:

a. Develop, administer, and enforce the FPP for the Hanford Site, as identified in the “Authority, Responsibilities, Duties, and Enforcement” of the HFM contained in the DOE approved “Hanford Fire Marshal Charter”, HNF-52336. The FPP shall apply to all site activities, including operations, demolition, and construction. In order to accomplish the activities of the HFMO, qualified FPEs and fire protection staff shall be provided with in the Fire Marshal's organization as necessary to perform the functions and meet the objectives of this Directive.

b. Participate in the investigation of fires, explosions, and other hazardous conditions and maintain the case files on each investigation.

c. Participate in the development and consensus of an Administrative Interface Agreement with other site contractors implementing the authority of the HFM.

d. Coordinate and approve changes to existing water supplies and new water supply designs.

d. Provide site-level oversight of the review and approval process for acceptance test procedures for site fire alarm and fire suppression systems and equipment, including new and modified installations.

e. Have the authority to review and approve site construction documents and shop drawings for new construction, modification, or renovation.

f. Perform concurrence/approval reviews of facility FHA documents, FHA implementation plans, fire safety exemptions, equivalencies, and deviations in the administration of the Site FPP prior to DOE submittal.

g. Provide routine fire protection code interpretations and clarification of fire code requirements and maintain records of these decisions for RL review.

h. The following fire protection related items may be delegated from the HFM to FPEs that are qualified as Deputy Fire Marshals to support defined HFMO roles and responsibilities;

(1) Review and approval of plans, drawings, and specifications for fire protection, water system, and applicable facility modifications.

(2) Contractor/Facility-level enforcement for non-compliant items per the Fire Marshal’s Charter.

(3) Review/approve systems, components, design, Acceptance Test Procedures (ATP), and testing/operating procedures for assigned facilities.

(4) Prepare and approve HFM and special hazard (hot-work, heaters, etc.) permits as required.

(5) Coordination with facility management and preparation of deactivation analysis and permits.

(6) Develop and implement specific fire watch/surveillance requirements for assigned facilities and assure compensatory measures are implemented for system restrictions and impairments and upon entry into the ITM grace period.
3) Hanford Occupational Medical Services Contract (OccMed) – Fire Protection

Only the fire protection section of the CRD is applicable to the OccMed Contractor. However, the OccMed Contractor is not expected to have qualified FPEs on staff. As minimum the OccMed Contractor will:

a. Comply with applicable fire protection provisions of NFPA Codes and Standards. The most current edition of these Orders, Codes and Standards shall apply.

b. Ensure that fire protection systems and features are inspected, tested, and maintained in accordance with the applicable NFPA standards.

c. Ensure that appropriate fire department, hazardous material, medical and other emergency response capabilities are maintained for each facility.

d. Provide occupational medical support for medical emergencies when requested by the HFD Incident commander.

4) Plateau Remediation Contract (PRC), River Corridor Contract (RCC), OccMed, – Fire Protection

While each site contractor is responsible to obtain appropriate emergency and fire protection IT&M services, only the MSC is responsible for maintaining the services of the HFD with the following exceptions:

a. Other contractors are required to provide facility assistance to the HFD in the development of the pre-incident plan, and

b. Other contractors must institutionalize and recognize the HFM’s authority as contained in the Authority, Responsibilities, and Duties and Enforcement section of the DOE approved Hanford Fire Marshal Charter, HNF-52336. Prime contractors associated with a different contract from that where the Fire Marshal’s Office resides shall form and maintain in force an agreement or memorandum of understanding with the HFM to implement this authority and program

5) Site Contractors – Fire Protection

a. DOE G 423.1-1A, Implementation Guide for use in Developing Technical Safety Requirements, provides RL expectations for compliance with 10 CFR 830 requirements for Technical Safety Requirements. Any variance from that guidance must be approved by RL.

b. The current facility FHA is to be submitted concurrently with the DSA as part of the set of key supporting documents when the DSA is submitted for RL approval.

c. Exemptions, variances, and equivalencies shall follow the guidance of DOE O 251.1C (latest edition). Conditions for approval shall be clearly stated within the body of the request and be formally tracked by the responsible facility or organization. All exemption, variance, and equivalency requests must be reviewed and concurred by the HFMO prior to submittal to RL.

d. The Contractor shall provide FPE support to RL in performing Tri-Annual Fire Protection Assessments of other site contractors.