

2. AMENDMENT/MODIFICATION NO. 3. EFFECTIVE DATE 4. REQUISITION/PURCHASE REQ. NO. 5. PROJECT NO. (If applicable)

0455 See Block 16C

6. ISSUED BY CODE 00603 7. ADMINISTERED BY (If other than Item 6) CODE 00603

Office of River Protection
U.S. Department of Energy
Office of River Protection
P.O. Box 450
Richland WA 99352

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) 9A. AMENDMENT OF SOLICITATION NO.

WASHINGTON RIVER PROTECTION SOLUTIONS LLC
Attn: BRIAN THOMAS
C/O URS ENERGY & CONSTRUCTION, INC.
PO BOX 73 / 720 PARK BLVD
BOISE ID 837290073

9B. DATED (SEE ITEM 11) 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC27-08RV14800

10B. DATED (SEE ITEM 13) 05/29/2008

CODE 806500521 FACILITY CODE 11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE X	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. I.140 "Laws, Regulations, and DOE Directives"
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not. is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
The purpose of this modification is to revise the list of directives contained in Contract Section J, Attachment J.2 "Requirement Sources and Implementing Documents" to delete implementing procedure ENS-ENG-IP-05, Rev 0, ORP Fire Protection Program, and incorporate implementing procedure MGT-ENG-IP-05, Rev 3, Fire Protection Program, Attachment 10.1, Contractor Requirements Document, into the contract (Reference 2). Attachment 10.1 specifies that the tank farm contractor, including flowdown to applicable subcontractors, shall implement Sections 5.2, 5.3, and 7.0 of MGT-ENG-IP-05, Rev. 3.

There are no other changes.

Continued ...
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Katie Downing, Contracts Mgr.	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Jaren B. Glover
15B. CONTRACTOR/OFFEROR [Signature]	15C. DATE SIGNED 1/22/18
16B. UNITED STATES OF AMERICA [Signature]	16C. DATE SIGNED 1/22/18

**ATTACHMENT J.2
 REQUIREMENT SOURCES AND IMPLEMENTING DOCUMENTS**

The following lists are provided in accordance with the Section I Clause entitled, *DEAR 970.5204-2, Laws, Regulations, and DOE Directives*.

LIST A: Removed in Contract Modification 274

LIST B: APPLICABLE DOE DIRECTIVES

Table J.2.8 Directives, Regulations, Policies, and Standards

Document Number	Title
DOE O 130.1	Budget Formulation Process
DOE M 140.1-1B	Interface with the Defense Nuclear Facilities Safety Board
DOE O 142.1	Classified Visits Involving Foreign Nationals
DOE O 142.2A	Voluntary Offer Safeguards Agreement and Additional Protocol with the International Atomic Energy Agency
DOE M 142.2-1	Voluntary Offer Safeguards Agreement and Additional Protocol with the International Atomic Energy Agency
DOE O 142.3 A	Unclassified Foreign Visits and Assignments Program
DOE N 144.1	Change to DOE Order 1230.2
DOE O 151.1C	Comprehensive Emergency Management System
DOE O 153.1	Departmental Radiological Emergency Response Assets
DOE O 200.1A	Information Technology Management
DOE O 203.1	Limited Personal Use of Government Office Equipment Including Information
DOE O 205.1A	DOE Cyber Security Management
DOE M 205.1-4	National Security System Manual
DOE M 205.1-5, Admin Change 2	Cyber Security Process Requirements Manual
DOE M 205.1-6, Admin Change 2	Media Sanitization Manual
DOE M 205.1-7, Admin Change 2	Security Controls for Unclassified Information Systems Manual
DOE M 205.1-8, Admin Change 2	Cyber Security Incident Management Manual
DOE O 206.1	Department of Energy Privacy Program
DOE O 206.2	Identity, Credential and Access Management
DOE N 206.4	Personal Identity Verification
DOE N 206.5	Response and Notification Procedures for Data Breaches Involving Personally Identifiable Information
DOE O 210.2A	DOE Corporate Operating Experience Program

Document Number	Title
DOE O 221.1A	Reporting Fraud, Waste, and Abuse to the Office of Inspector General
DOE O 221.2A	Cooperation With the Office of the Inspector General
DOE O 225.1B	Accident Investigations
DOE O 226.1B	Implementation of DOE Oversight Policy
DOE O 227.1	Independent Oversight Program
DOE M 231.1-1A, Chg 2	Environment, Safety, and Health Reporting Manual
DOE O 231.1B	Environment, Safety and Health Reporting
DOE O 232.2A and CRD O 232.2A (Supplemented Rev. 0)	Occurrence Reporting and Processing of Operations Information
DOE N 234.1	Reporting of Radioactive Sealed Sources
DOE O 241.1B	Scientific and Technical Information Management
DOE O 243.1A	Records Management Program
DOE O 243.2	Vital Records
DOE O 350.1, Chg 4 (CRDs contained in Chapters I, II, III)	Contractor Human Resource Management Program
DOE O 350.1, Chg 5 (CRDs contained in Chapters VIII and IX)	Contractor Human Resource Management Program
DOE O 413.1A	Management Control Program
Reserved	
DOE O 413.3B	Program and Project Management for the Acquisition of Capital Assets
DOE O 414.1D	Quality Assurance
DOE O 420.1C	Facility Safety
DOE O 422.1 Chg 1	Conduct of Operations
DOE O 425.1D	Verification of Readiness to Start Up or Restart of Nuclear Facilities
DOE O 426.2	Personnel Selection, Training, Qualification, and Certification Requirements
DOE O 430.1B Chg 1	Real Property Asset Management
DOE O 433.1B	Maintenance Management Program for DOE Nuclear Facilities
DOE M 435.1-1 Chg 1	Radioactive Waste Management Manual
DOE O 435.1, Chg 1	Radioactive Waste Management
DOE O 436.1	Departmental Sustainability
DOE O 440.1B	Worker Protection Management for DOE Federal and Contractor Employees
DOE O 442.2	Differing Professional Opinions Manual for Technical Issues Involving Environment, Safety, and Health
DOE O 442.1A	DOE Employee Concerns Program
DOE M 441.1-1	Nuclear Material Packaging Manual
DOE M 450.4-1	Integrated Safety Management System Manual
DOE G 450.4-1B Vol 1	Integrated Safety Management System Guide (Volume 1) for use with Safety

Document Number	Title
	Management System Policies (DOE P 450.4, DOE P 450.5, and DOE P 450.6); The Functions, Responsibilities, and Authorities Manual; and the DOE Acquisition Regulation
DOE O 451.1B Chg 1	National Environmental Policy Act Compliance Program
DOE N 451.1	Change to DOE Order 451.1B
DOE O 458.1 Chg 2	Radiation Protection of the Public and the Environment
DOE O 460.1C	Packaging and Transportation Safety
DOE O 460.2A	Departmental Materials Transportation & Packaging Management
DOE M 460.2-1A	Radioactive Material Transportation Practices Manual
DOE O 461.1B	Packaging and Transportation for Offsite Shipment of Materials of National Security Interest
DOE M 461.1-1 Chg 1	Packaging and Transfer of Materials of National Security Interest Manual
DOE O 461.2	Packaging and Transportation for Onsite Transfer of Materials of National Security Interest
DOE O 470.4B	Safeguards and Security Program
DOE O 471.1A	Identification and Protection of Unclassified Controlled Nuclear Information
DOE O 471.3, Chg 1	Identifying and Protecting Official Use Only Information
DOE M 471.3-1	Manual for Identifying and Protecting Official Use Only Information
DOE O 471.6	Information Security
DOE O 472.2, Chg 1	Personnel Security
DOE O 475.1	Counterintelligence Program
DOE O 475.2A	Identifying Classified Information
DOE O 522.1	Pricing of Departmental Materials and Services
DOE O 534.1B	Accounting
DOE O 551.1D	Official Foreign Travel
DOE O 1230.2	American Indian Tribal Government Policy

Table J.2.9 DOE-RL/ORP Implementing Documents

Document Number	Title
ASME NQA-1-2004	Quality Assurance Requirements for Nuclear Facility Applications
DOE-0223	RL Emergency Implementing Procedures
DOE-0336, Rev 2A	Hanford Site Lockout/Tagout
DOE-0342, Rev 2A	Hanford Site Chronic Beryllium Disease Prevention Program
DOE-0343, Rev 3	Hanford Site Wide Stop Work Order Procedure
DOE-0344, Rev 3A	Hanford Site Excavating, Trenching and Shoring
DOE-0346, Rev 2	Hanford Site Fall Protection Program
DOE-0352	Hanford Site Respiratory Protection
DOE-0355	Hanford Standardized Hazardous Waste Operation and Emergency Response Training
DOE-0359, Rev 3	Hanford Site Electrical Safety Programs

Document Number	Title
DOE-0360, Rev 1A	Hanford Site Confined Space Procedure
DOE-0400	Hanford Site-Wide Employee Concerns
DOE/CBFO-94-1012	DOE Carlsbad Field Office, Quality Assurance Program Description, Revision 8, (for WIPP-related activities)
DOE/RL-2001-0036, Rev 1E	Hanford Site Wide Transportation Safety Document
DOE/RL-2002-12, Rev 1	Hanford Radiological Health and Safety Document
89-10	Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement)
DOE/RL-92-36	Hanford Site Hoisting and Rigging Manual
DOE/RL-94-02, Rev 6	Hanford Emergency Management Plan
DOE/RL-96-68, Rev 3	Hanford Analytical Services QA Requirements Document
DOE/RW-0333P, Rev 18	DOE Office of Civilian Radioactive Waste Management, Quality Assurance Requirements and Descriptions
DOE/RW-0351, Rev 4	Waste Acceptance System Requirements Document (WASRD)
DOE/RW-0511, Rev 2	Integrated Interface Control Document (ICD), Vol I, US DOE SNF & HLW to the Monitored Geologic Repository
DOE/WIPP-02-3122	Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant
MGT-ENG-IP-05 R3 ENS-ENG-IP-05, Rev 0	Fire Protection Program ORP Fire Protection Program
EM Policy Letter, July 10, 2006	Policies for Environmental Management Operating Project Performance Baselines, Contingency and Federal Risk Management Plans, and Configuration Control
EM-QA-001	Quality Assurance Program (QAP)
HNF-EP-0063	Hanford Site Solid Waste Acceptance Criteria
HNF-25842	Solid Waste Operations Complex (SWOC) Authorization Agreement (AA)
SCSP, July 5 2005	Site Counterintelligence Support Plan
Reserved	
DOE – P 420.1	Nuclear Safety Policy
ANSI/ISA-84.00.01 (ANSI 2004)	Functional Safety: Safety Instrumented Systems for the Process Industry Sector
ORP FR CRD MGT-PM-IP-08 Attachment 9.2, R3	FR Contractor Requirements Document (5/9/2012)
ESQ-EM-IP-M435.1-1-01, R0, CRD	Waste Incidental to Reprocessing (WIR) Determinations (Sept 2008)



U.S. DEPARTMENT OF ENERGY
OFFICE OF RIVER PROTECTION

TITLE: **FIRE PROTECTION PROGRAM**

Number: MGT-ENG-IP-05 R3
 Approval Date: 10/5/2016
 Effective Date: 10/19/2016
 Page: 1 of 19
 Prepared for: WED
 Point of Contact: C.P. Christenson
 Approved by: J.A. Dowell

1.0 PURPOSE AND INTRODUCTION

The purpose of this implementing procedure (IP) is to establish the expectations and clarifications for the fire protection functional area requirements of U.S. Department of Energy (DOE) O 420.1C, *Facility Safety*, including fire protection responsibilities related to federal and contractor worker protection under the Federal Employee Occupational Safety and Health Program and the Worker Safety and Health Rule of 10 *Code of Federal Regulation* (CFR) 851, “Worker Safety and Health Program,” and other applicable directives for an effective fire protection program at the DOE Office of River Protection (ORP) facilities. Functional area requirements included in DOE O 420.1C and other DOE directives, other than the fire protection functional area requirements, are not within the scope of this IP.

2.0 CANCELLATION OR RECORD OF CHANGE

Revision	Revision Description
0	New IP
1	Revised organization titles due to reorganization and added Building Code and Fire Code Official (September 12, 2012).
2	Revised due to revision in procedure number per MGT-PM-PL-15, Rev. 4, organizational realignment, increase maximum possible fire loss thresholds, and technical editing.
3	Revised due to changes imposed by DOE O 420.1C and DOE-STD-1066-2012.

3.0 APPLICABILITY

The provisions of this IP apply to ORP elements, prime contractors, and subcontractors of prime contractors performing work for ORP at Hanford, as provided by law and/or contract, and as implemented by the appropriate contracting officer.

4.0 ACRONYMS AND DEFINITIONS

4.1 ACRONYMS

AHJ	authority having jurisdiction
ASTM	ASTM International
BCO	building code official
CFR	<i>Code of Federal Regulations</i>
CRD	contractor requirements document
DOE	U.S. Department of Energy
FCO	fire code official
FHA	fire hazard analysis
HFD	Hanford fire department
HFPF	Hanford Fire Protection Forum
HQ	U.S. Department of Energy, Headquarters
IBC	International Building Code
IFC	International Fire Code
IP	implementing procedure
MPFL	maximum possible fire loss
NFPA	National Fire Protection Association
ORP	U.S. Department of Energy, Office of River Protection
RL	U.S. Department of Energy, Richland Operations Office
SFPE	Society of Fire Protection Engineers
WAC	<i>Washington Administrative Code</i>
WED	Waste Treatment and Immobilization Plant Project Engineering Division
WTP	Waste Treatment and Immobilization Plant Project

4.2 DEFINITIONS

Equivalency – The approved alternative means of satisfying the technical provisions of a fire protection code, standard, order, or this IP as submitted to ORP for review and approval and/or transmission to DOE Headquarters for approval.

Exemption – A DOE-approved departure from fire protection requirements found in DOE orders, notices, or manuals.

Fire Area – A location bounded by construction having a minimum fire resistance rating of 2 hours with openings protected by appropriately fire-rated doors, dampers, or penetration seals. A fire rating greater than 2 hours may be required if the anticipated fire, due to heat release of the fire from combustible loading, ventilation, and other factors, is not contained within the 2-hour fire area.

Fire Hazard Analysis (FHA) – A comprehensive and qualitative assessment of the risk from fire within individual fire areas in a DOE facility so as to ascertain whether the DOE fire protection objectives of DOE O 420.1C, are met.

TITLE: FIRE PROTECTION PROGRAM	Number: MGT-ENG-IP-05 R3
	Effective Date: 10/19/2016
Page: 3 of 19	

Fire Loss – The dollar cost of restoring damaged property to its prefire condition (DOE O 231.1B, *Environment, Safety and Health Reporting*, Attachment 3). In determining loss, the estimated damage to the facility and contents shall include replacement cost, less salvage value. Losses will exclude costs of restoration of property that is decommissioned and not carried on the books as a value and property that is scheduled for demolition. Include the cost of decontamination and cleanup, the loss of production or program continuity, the indirect costs of fire extinguishment (e.g., damaged fire department equipment), and consequent effects on related areas, in all property loss amounts.

Fire Protection – A broad term that encompasses all aspects of fire safety, including building construction and fixed building fire features, fire suppression and detection systems, fire water systems, emergency process safety control systems, fire departments and emergency response forces, fire protection engineering, and fire prevention. Fire protection is concerned with preventing or minimizing the direct and indirect consequences of fire, including fire-related explosions, natural phenomenon, smoke damage, and water damage.

Fire Protection System – Any system designed to detect, extinguish, or limit the extent of fire injury or damage.

Flame Spread – A numerical classification that indexes the relative burning behavior of a material by quantifying the spread of flame in a test specimen in accordance with ASTM International (ASTM) E-84-13a, “Standard Test Method for Surface Burning Characteristics of Building Materials.”

Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) – A legal agreement between DOE, the Washington State Department of Ecology, and the U.S. Environmental Protection Agency to clean up radioactive and chemical wastes at the Hanford Site.

Hanford Fire Marshal – Person who has the authority to administer and enforce the Fire Prevention Program for the Hanford Site. This responsibility and authority is granted by ORP and the Richland Operations Office (RL). The duties of the fire marshal are reviewed and written by the Hanford Fire Protection Forum (HFPPF) and forwarded to ORP and RL for review and approval. The fire marshal roles and responsibilities are contained in the “Authority, Responsibilities, and Duties of the Hanford Fire Marshal” which is also known as the ‘Fire Marshal’s Charter’ (DOE approved version of HNF-52336).

Hanford Fire Protection Forum (HFPPF) – A medium for open discussion of fire protection issues to assist DOE in maintaining a uniform fire protection program on the Hanford Site. The forum is made up of contractor fire protection engineers, managers, staff, designers, fire prevention staff, the Hanford fire marshal, fire department staff, fire system maintenance managers and engineers, and the DOE fire protection engineers. The HFPPF is a DOE chartered organization.

Ignitable Waste – Characteristic of waste flammability defined by *Washington Administrative Code* (WAC) 173-303, “Dangerous Waste Regulations.” Liquids, solids, compressed gases, or oxidizers may be ignitable waste as defined by WAC 173-303. For example, a liquid ignitable waste is a liquid waste having a flash point less than 140°F (60°C), except for aqueous solutions containing less than 24 percent alcohol by volume.

Interior Finish – The exposed surface of a wall, ceiling, or floor surface material.

Maximum Credible Fire Loss – The property damage that would be expected from a fire, assuming that all installed fire protection systems function as designed and the effect of emergency response is omitted except for post-fire actions, such as salvaging work, shutting down water systems, and restoring operations. See DOE O 231.1B, Attachment 3, for determining loss estimations.

Maximum Possible Fire Loss (MPFL) – The value of property, excluding land, within a fire area, unless an FHA demonstrates a lesser (or greater) loss potential. This assumes the failure of both automatic fire suppression systems and manual firefighting efforts. See DOE O 231.1B, Attachment 3, for determining loss estimations.

ORP Employee Fire Safety Training – ORP employees receive annually fire prevention training by taking the fire safety module of the Hanford General Employee Training. The Hanford General Employee Training includes, good housekeeping practices, proper recognition of fire alarm signals and notification of fire events, instructions on the potential use of fire extinguishers, recognition of fire hazards, and off-road travel restrictions during extreme wild-land fire conditions at Hanford.

Primary (Control) Valve – A valve controlling a fire protection system, the closing of which by itself will totally prevent automatic operation of the system.

Property – All government-owned or -leased structures and contents for which the DOE has responsibility, including the following:

- All DOE land, structures, and contents
- All leased locations
- All other government property on DOE land or in DOE structures
- Other property that occupies DOE land or is in DOE structures.

Qualified Fire Protection Engineer – An engineer who is a graduate of an accredited university or college with a bachelor of science degree in an engineering or a related technical field and meets the qualifications for 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 fire protection engineer. ORP qualified fire protection engineers must also meet the DOE-STD-1137-2014 (or earlier edition), *Fire Protection Engineering Functional Area Qualification Standard*.

Reactive Waste – Characteristic of a waste as defined by Dangerous Waste Regulations, WAC 173-303-090(7).

Smoke Developed Rating – A numerical classification system that indexes the smoke generation rate of a given material as determined by ASTM E-84-13a.

5.0 RESPONSIBILITIES

5.1 OFFICE OF RIVER PROTECTION

5.1.1 Division Directors and Line Managers

ORP division directors and ORP line managers with assigned responsibilities for facilities, programs, and/or operations shall be responsible for the following:

- a. Ensure employees receive the ORP Employee Fire Safety Training (see Section 4.2, Definitions, of this IP).
- b. Ensures contractor implementation of fire safety requirements defined in authorization basis documents, FHAs, and this IP, as delineated by the contract.
- c. Ensures the latest contractor facility FHAs submitted with authorization basis document submittals are forwarded to the ORP fire protection engineer for review.
- d. Ensures that contractor requests for fire protection program approval, fire safety exemptions and equivalencies are reviewed in accordance with this IP.
- e. Obtains technical support for fire protection engineering from the Waste Treatment and Immobilization Plant Project (WTP) Engineering Division (WED) where required.

5.1.2 Waste Treatment and Immobilization Plant Project Engineering Division

WED shall be responsible for the following:

- a. Maintains access to an adequate fire protection staff including one or more qualified fire protection engineers to accomplish the objectives of DOE O 420.1C and other program elements described in this IP.
- b. Schedules and performs documented assessments of WTP contractor fire protection programs in accordance DOE O 420.1C and ORP directives management. Fire protection assessments of the WTP contractor should be conducted every 3 years by WED and may be supported by other program and support staff. Fire protection assessments will evaluate the contractor's fire protection program, including field walkdowns of facilities, and include applicable programmatic and facility-related elements specified by DOE-STD-1066-2012.
- c. Supports ORP Tank Farms Operations Division in conducting fire protection program assessments, reviews and makes recommendation for approval of the contractor's fire protection program per DOE O 420.1C, and other fire protection technical support on a requested basis.
- d. Reviews contractor fire protection exemption and equivalency requests when requested by ORP division directors and line managers in accordance with DOE requirements and Chapter 6.0.
- e. Coordinates and provides technical fire protection support to ORP division directors and line managers.

- f. Reviews contractor's annual fire protection summaries, collates, and submits summary to the appropriate DOE-Headquarters (HQ) office in accordance with DOE O 231.1B.
- g. Supports ORP authority having jurisdiction (AHJ), building code official (BCO), and fire code official (FCO) responsibilities for fire protection described in this IP, issue guidance, and interpretations of the ORP fire protection and establish written fire protection program requirements through the ORP directives management.
- h. Supports review of new facility and existing nuclear facility FHAs.
- i. Provides fire protection engineering representation at the HFPPF meeting and routine fire protection program interface meetings with contractors.
- j. Coordinates with RL and the Hanford fire department (HFD) on related fire protection and fire department technical matters and assist DOE safety representatives in life safety and fire-related Federal Employee Occupational Safety and Health-related inspections as required by DOE O 440.1B, *Worker Protection Program for DOE (Including the National Nuclear Security Administration) Federal Employees*, when requested.
- k. Represents ORP by participating in the complex wide DOE Fire Safety Committee.

5.1.3 Tank Farms Operation Division

The ORP Tank Farms Operations Division shall be responsible for the following:

- a. Coordinates with WED and other necessary support staff in the scheduling, coordinating, and performing fire protection program assessment of the tank operating contractor on a 3-year frequency. Fire protection assessments will evaluate the contractor's fire protection program, including field walkdowns of facilities, and include applicable programmatic and facility-related elements specified by DOE-STD-1066-2012.
- b. Obtains technical fire protection support from WED on an as-needed basis.

5.2 OFFICE OF RIVER PROTECTION PRIME CONTRACTORS

5.2.1 Tank Operations Contractor

Tank operations contractors are responsible for the following:

- a. Implement the applicable fire protection and life safety provisions of DOE O 420.1C, Attachment 1, "Contractor Requirements Document" (CRD) and 10 CFR 851 (subject to clarifications contained in the following subsections and Section 5.3), applicable National Fire Protection Association (NFPA) codes and standards, and supplemental requirements in Chapter 7.0, including subcontractor flowdown requirements.
- b. Clarifications to DOE O 420.1C, Attachment 2, Chapter II, "Fire Protection":
 - Section 3.f. (1) specifies "fire hazard analyses (FHAs)" to be completed for all hazard category 1, 2, and 3 nuclear facilities and major modifications thereto, facilities that represent unique fire safety risks, new facilities or modifications to existing facilities with value greater than \$150 million, and when directed by the responsible DOE authority. The following clarifications are provided:

- An FHA shall be completed for significant new facilities (new facilities that have a combined building and content replacement value of \$25 million 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 1 (conceptual design) and revised during Title II (definitive design) of the project design process. The preliminary FHAs during the design process shall address, to the maximum extent possible, the elements required by the final FHA. Each facility required to have an FHA shall have its own fire hazard analysis document. Facility modifications that require a project will not have a standalone FHA document but must be reflected in the facility FHA document.
- 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 to arrive at the conclusion.
- The FHA must include an assessment of the risk from fire and related hazards (e.g., 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.
- The focus of the FHA shall be the individual fire areas that comprise the facility unless analytical deterministic modeling methods can demonstrate a lesser or greater fire potential. A fire area is defined as a location bounded by fire-rated construction having a minimum fire resistance rating of 2 hours.
- Fire models developed by the National Institute of Standards and Technology or fire models acceptable by the DOE AHJ (e.g., approved for DOE use as a Central Registry Toolbox code) that utilize deterministic fire behavioral methods may be used in the development of the FHA. The FHA shall not preclude the assumption of a fire from occurring when an energy source and a combustible source are present. Average combustible loading as a means to characterize the fire severity is also not considered an acceptable technique. Fire modeling software that is used to support eliminating, limiting, or mitigating nuclear hazards to workers, the public, or the environment must also meet the applicable quality assurance requirements of DOE O 414.1D, *Quality Assurance* and DOE G 414.1-4, *Safety Software Guide for use with 10 CFR 830, Subpart A, Quality Assurance Requirements, and DOE O 414.1D, Quality Assurance*.
- For nuclear facilities, the accident analyses for fire and explosion events 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). The final FHA shall be referenced by the facility documented safety analysis, including, the final or interim safety analysis.

- FHAs must be performed under the direction of a qualified fire protection engineer as defined by this IP.
- The final and preliminary FHAs shall contain, but not be limited to, the following elements:
 - Description of construction (including occupancy classification and building code construction type).
 - DOE order, and industry codes and standards applicable.
 - Protection of essential 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 and MPFL (DOE O 231.1B, Attachment 3 for determining loss estimations).
 - Fire department response.
 - Recovery potential.
 - Potential for a toxic, biological, and/or radiation incident due to a fire.
 - Emergency planning.
 - Security considerations related to fire protection.
 - Natural hazards (e.g., 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.
 - Deficiencies or “recommendations” that are required to be corrected to meet fire protection objectives.
 - Risk of fire and related hazards (e.g., direct flame impingement, hot gases, smoke mitigation, firefighting water damage, etc.).
 - All approved variances, equivalencies and exemptions.
- **Implementation Plans for FHAs.** The results of an 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 and life safety are met. Following completion and ORP review of the FHA, the contractor shall develop an FHA implementation plan. The FHA

implementation plan shall describe each recommendation or deficiency requiring action, and include implementation strategies, funding, and schedules for each item recommended or determined to be deficient by the FHA. The FHA implementation plan shall be submitted to the ORP contracting officer representative for review. If a change has occurred in which the FHA recommendation is no longer valid or cannot be accomplished due to a change in operational considerations the FHA shall be modified as appropriate within the requirements of this IP and resubmitted to ORP for review.

- ***Maintenance of fire hazard analyses.*** FHAs for nuclear facilities or other hazardous facilities that require an FHA, as determined by the DOE AHJ, shall be maintained to ensure that facilities, operations, and hazards are accurately depicted in the FHA. Revisions to FHAs are addressed by DOE O 420.1C.
- Attachment 2, Chapter II, Section 3.d.(2)(a) of the DOE 420.1C CRD specifies the need for access to qualified, trained fire protection staff that includes fire protection engineers. The following clarifications are provided:
 - A qualified fire protection engineer is an engineer that is a graduate of an accredited university or college with a bachelor of science degree in an engineering or related technical field and meets the qualifications for Member Grade in the SFPE, or an engineer that has a member grade in the SFPE, or an engineer that is a registered professional fire protection engineer.
 - The tank operations contractors shall have on staff at least one qualified fire protection engineer subject to specific clarifications of this IP. Additional qualified fire protection engineers and fire protection staff shall be provided as necessary to perform the functions and meet this IP.
- Attachment 2, Chapter II, Sections 3.b.(2) and 3.f.(2) of the DOE 420.1C CRD specifies contractors to conduct periodic self-assessment (program) and facility assessments. 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 3 years for a facility valued at \$5 million to \$100 million, a non-nuclear facility considered to be a moderate hazard facility, or category 1, 2, or 3 nuclear facility. Facilities, where property is less than \$5 million, shall not require a fire protection facility assessment that contains nature and scope elements contained in DOE-STD-1066-2012, unless significant programmatic impacts, hazardous materials, or radioactive materials are involved. If such facility assessments are required they shall be made at least every 3 years. Fire protection program assessments (self-assessment) shall be made every 3 years and will include the elements as contained in Section 3.2.2 of DOE-STD-1066-2012. Facility assessments will include the elements as contained in 7.2.3 of DOE-STD-1066-2012. Assessment copies shall be kept on file in accordance with Chapter 9.0 of this IP. Assessments which identify a deficiency must follow a corrective action to formally address the deficiency, including compensatory measures, if applicable.
- Attachment 2, Chapter II, Section 3.b.(1) requires contractors to submit their fire protection program to the DOE field element for review and approval. The following

clarifications are provided. Contractors subject to this requirement are expected to initially submit their request for fire protection program approval along with supporting documentation to ORP for approval. If substantial changes are made to their fire protection program a request for additional approval is made to ORP. Contractors are encouraged to discuss changes with ORP to determine if the magnitude of changes necessitate subsequent approval.

- Attachment 2, Chapter II, Section 3.c.(3)(e) of the DOE 420.1C CRD specifies a reliable and adequate supply of water for fire suppression. The following clarifications are provided:
 - 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:
 - Multiple sectional isolation valves shall be provided at each intersection between a supply source and a main loop (one valve for each leg).
 - 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 primary control valve.
 - 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 (e.g., computer room, loading dock, freezer, etc.).
 - Underground distribution systems for fire protection water supplies shall be of the looped grid type, providing two independent points of supply and two-way flow with sectional valving arranged to provide alternate water flow paths from the source to any point in the distribution system, where MPFL exceeds \$5 million. Application of this requirement to facilities that are existing will be made on a case-by-case basis after consultation with the ORP AHJ and contracting officer.
 - A minimum of two operational fire hydrants shall be provided for each building where parts of the exterior of the building shall be reached by hose lays of not over 350 feet with consideration given to accessibility and obstructions. Application of this requirement to facilities that exist will be made on a case-by-case basis after consultation with the ORP AHJ and the HFD. For new construction, at least one hydrant shall be located within 150 feet of fire department connections. Hydrants shall be of the standard type used at Hanford.
 - Fire flows shall be available for a period of at least 2 hours. A minimum 4-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. Fire flows for new structures without automatic sprinkler systems must meet NFPA 1 flow requirements. Application of NFPA 1 fire flow requirements to existing structures without automatic sprinkler systems will be made on a case-by-case basis after consultation with the ORP AHJ and contracting officer with consideration of the code of record and potential hazards involved.

- Attachment 1, Section 1.c. of the DOE O 420.1C CRD states that contractors must identify the applicable industry codes and standard, including the International Building Code (IBC). Attachment 2, Section 3.a.(2) of DOE 420.1C also states the applicable building code and National Fire Protection Association (NFPA) codes and standards must be identified in the fire protection and emergency response programs. The following clarifications are provided, subject to statutory regulations contained in 10 CFR 851:
 - New facilities and major facility modifications must conform to the fire resistance requirements, allowable floor area, building height limitations, and building separations of the International Building Code (IBC). The provisions of the IBC takes precedence over NFPA 5000, *Building Construction and Safety Code*. Building construction related to egress and life safety shall comply with NFPA 101, *Life Safety Code*. Conflicts between the IBC and NFPA 101 related to fire resistance rating of egress components (e.g. not structural fire resistant rating, not allowable floor area limits, not building height limitations, etc.) shall conform to NFPA 101. Compliance with the NFPA 101 shall be considered to satisfy the exit requirements of 29 CFR 1910, “Occupational Safety and Health Standards.”
 - 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 WAC 173-303, is required by the Tri-Party Agreement. The NFPA 1, *Uniform Fire Code*, takes precedence over the IFC in all other situations. Other requirements of IFC are not considered criteria but may be used as a guide when established criteria do not address a specific situation.
 - Operational aspects related to fire protection shall comply with the most recent edition of the applicable NFPA code, NFPA standard, and DOE fire protection standard (DOE-STD-1066-2012). The fire protection-related design codes and standards in effect when facility final design commences (code of record) remain in effect for the life of the facility (for example if earlier version of DOE-STD-1066 was used in the design of the facility, than that version of DOE-STD-1066 applies to the design). When major modifications occur, as determined by the AHJ, the current edition of the code or standard 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.

TITLE: FIRE PROTECTION PROGRAM	Number: MGT-ENG-IP-05 R3
	Effective Date: 10/19/2016
Page: 12 of 19	

5.2.2 Waste Treatment and Immobilization Plant Contractor

- a. ORP WTP construction contractor is responsible to integrate fire protection into work planning and execution by complying with approved safety requirements and other applicable documents as specified in Contract No. DE-AC27-01RV14136, Section J, Attachment E, as amended by the DOE contracting officer.

5.3 OTHER PROGRAM ELEMENTS AND CLARIFICATIONS

- a. **AHJ:** The DOE AHJ is the decision-making authority in matters concerning fire protection. DOE O 420.1C, delegates the AHJ to the head of the DOE field office. NFPA codes and standards, required by DOE, also describe the AHJ as approving fire-related equipment, material installations, and procedures, which is more appropriately within the responsibility of the contractor. As such, this IP recognizes there are different levels of routine AHJ decision-making responsibilities necessary to execute fire protection programs under the responsibility of ORP and clarifies two levels of the AHJ. ORP shall act as the highest level AHJ. The head of the ORP field office delegates the AHJ. The highest level AHJ in ORP is the organizational decision maker (utilizing the formal concurrence process) affecting any final matter concerning fire protection at ORP. The ORP AHJ will obtain review and concurrence by the ORP qualified fire protection engineer prior to making final AHJ-related decisions, consistent with this IP. Generally the ORP AHJ will be responsible for review of FHAs, review of fire safety exemptions and equivalency requests, approval of fire safety exemptions and equivalency requests (with the exception of approval of exemptions and equivalencies to fire safety requirements explicitly specified by DOE O 420.1C and 10 CFR 851, which are approved by DOE-HQ per DOE O 420.1C), and final interpretation of ORP fire protection policy and code-related requirements. For approving routine fire protection equipment, materials, installation, operational procedures, and routine fire protection code interpretations, the AHJ responsibility resides within the contractors programs and procedures with input from the contractors qualified fire protection engineer(s).
- b. **Owner and owner’s representative described in NFPA:** NFPA standards and codes, required by DOE, describe the “owner” and “owner’s representative” performing specified functions relative to the design, installation, acceptance, and operation of fire protection-related equipment. For the purposes of this IP, ORP defines the prime contractor with input from the contractors qualified fire protection engineer(s) as the designated owner’s representative performing the specific functions where NFPA standards or codes specify an owner or owner’s representative function.
- c. **BCO and FCO:** The IBC and the IFC, with limitations, as described in this IP, describe roles and responsibilities for the BCO and FCO. ORP is the BCO and FCO for facility designs, modifications, or operations under ORP jurisdiction, where the IBC or IFC requirements are applicable, as delineated in this IP. The ORP BCO and FCO will obtain review and concurrence by the ORP qualified fire protection engineer prior to making final BCO- and FCO-related decisions.
- d. **Application of codes and standards:** Fire protection criteria, delineated in the codes and standards specified in DOE O 420.1C and this IP, are the minimum requirements for the

implementation of the ORP Fire Protection Program. Where conflicts in the application of these codes and standards arise, the more restrictive requirements apply or an interpretation request may be made to the ORP AHJ. 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 except when major modifications occur the current edition of the code must apply to the modification. If the ORP AHJ determines that a significant hazard endangers building occupants, the public, or the environment, the facility must be upgraded to the requirements of the current edition of the code or standard by written direction of the contracting officer.

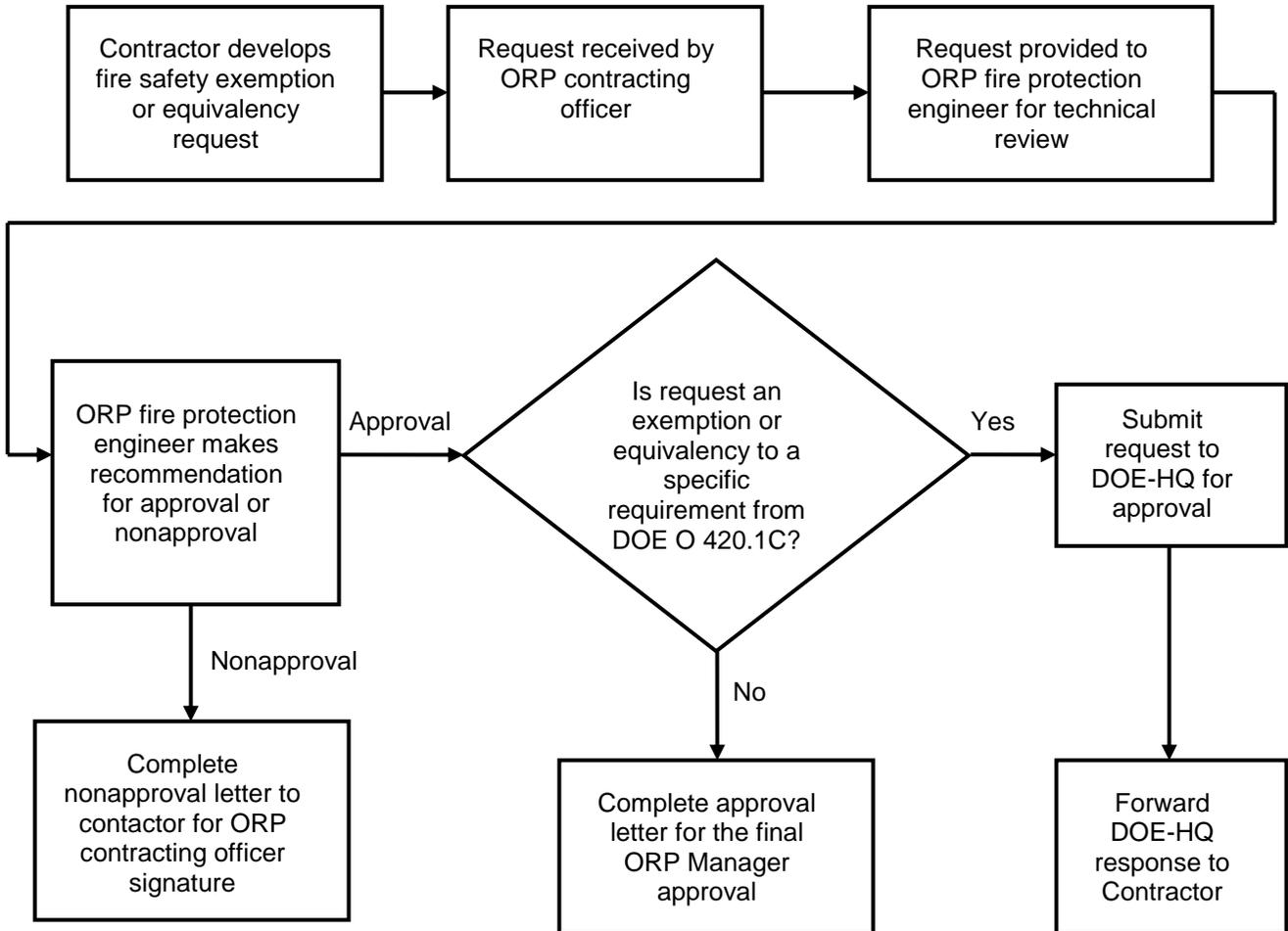
- e. **Fire safety exemptions and equivalencies:** It is the intent of the ORP Fire Protection Program to encourage the application of alternative and innovative fire protection methods that will meet the objectives of the fire protection program. Therefore, fire safety exemptions and equivalencies from these requirements are encouraged. The fire safety exemption or equivalency request is a documented request that is written by the contractor and submitted to the ORP AHJ for review and approval, when appropriate. The level of documentation necessary to support these requests will vary, depending on the issue. See DOE-STD-1066-2012 for additional information.
- f. **Hanford Fire Protection Forum:** The HFPPF is a medium for open discussion of fire protection issues to assist DOE ORP and RL in maintaining a uniform fire protection program on the Hanford Site. The forum is made up of contractor fire protection engineers, managers, staff, designers, fire prevention staff, the Hanford fire marshal, fire department staff, fire system maintenance managers and engineers, and the DOE fire protection engineers. The HFPPF is an ORP and RL chartered organization. The HFPPF writes the duties of the fire marshal and forwards the fire marshal's duties to ORP and RL for review and approval. The contractor is encouraged to provide fire protection representation at the HFPPF meetings.
- g. **Fire related emergency services:** The HFD provides emergency fire suppression, technical rescue, emergency medical and ambulance services, on-scene incident command structure, and hazardous material response to DOE facilities on the Hanford Site. While each ORP contractor is responsible to obtain appropriate emergency and fire protection inspection, testing, and maintenance services, only the HFD is responsible for maintaining the emergency service levels of the fire department, with the following exceptions:
- Other contractors are required to provide facility assistance to the HFD in the development of the prefire/action plan for their subject facilities.
 - Contractors are encouraged to institutionalize and recognize the Hanford fire marshal's authority as contained in the "Authority, Responsibilities, and Duties of the Hanford Fire Marshal" attachment of the Fire Prevention Program description contained in the Hanford chapter of the *DOE Fire Protection Handbook*. Prime contractors associated with a different contract from that where the fire marshal's office is located are encouraged to form an agreement or memorandum of understanding with the Hanford fire marshal to implement this authority.

6.0 FIRE SAFETY EXEMPTIONS AND EQUIVALENCIES REQUEST PROCESS

When required, a documented request for a fire safety equivalency or exemption, defined by this IP, is developed by the contractor and submitted to ORP along with pertinent information and level of documentation as specified by DOE-STD-1066-2012. The following process guides the review and approval of these requests:

- a. Contractor developed request is sent to the appropriate ORP contracting officer for review and recommended approval.
- b. The contracting officer forwards the request to the ORP WED for review by a qualified fire protection engineer.
- c. The fire protection engineer conducts a technical review that may involve a physical field verification of the facilities and subjects described in the request and coordinate the review with the contractor and other DOE staff and management as necessary to complete the review.
- d. The fire protection engineer makes recommendations with technical justification for request approval or nonapproval.
- e. For recommended approval of fire safety exemptions and equivalencies to specific requirements contained in DOE O 420.1C, the fire protection engineer initiates concurrence of a recommended approval request memorandum, which is sent to the applicable DOE-HQ secretarial officer for final review and approval. The final approval memorandum from DOE-HQ is then forwarded by the ORP contracting officer to the contractor.
- f. Table 5.1 of DOE-STD-1066-2012 summarizes the approval authorities for the various source requirements. For recommended approval of fire safety exemptions to requirements contained in this IP that are not specifically contained in DOE O 420.1C and for approval of fire safety equivalencies to requirements from NFPA Codes and Standards, the building code, or to DOE-STD-1066-2012, the fire protection engineer initiates concurrence of the recommended approval letter for the final ORP Manager approval.
- g. For recommended nonapproval the fire protection engineer initiates concurrence of a nonapproval letter including technical justification for nonapproval through the contracting officer.

6.1 FIRE SAFETY EXEMPTION AND EQUIVALENCY REQUEST FLOW CHART



7.0 SUPPLEMENTAL REQUIREMENTS

The following supplemental requirements are applicable to the tank farms contractor, including flowdown to applicable subcontractors, as identified in Section 5.2 of this IP:

- a. Following escalation factors recognized by DOE O 420.1C, complete automatic fire suppression systems per NFPA standards, are required in all structures having an MPFL in excess of \$5 million, when required by an NFPA standard, or when the IBC requires it for construction height, allowable square footage size, construction type, or occupancy classification. When the MPFL exceeds \$150 million additional fire protection approaches (e.g., a fire suppression system and a fire detection and alarm system, previously known as ‘a redundant fire protection system’) is required. When the MPFL exceeds \$350 million, additional fire protection approaches plus engineered fire barriers are required to limit the MPFL to \$350 million. Application of this requirement to existing facilities that have a short life shall be applied on a case-by-case basis utilizing the FHA process.

- b. The term “site-wide Fire Protection Program” in DOE-STD-1066-2012 is clarified as the “Contractor’s Fire Protection Program.”
- c. New project and facility design, construction, and modifications shall comply with design requirements contained in DOE-STD-1066-2012. All statements utilizing the word “should” in DOE-STD-1066-2012 are not considered mandatory but recommended guidance which must be considered.
- d. New relocatable structures, defined by DOE-STD-1066-2012, shall comply with DOE-STD-1066-2012, Appendix C and other applicable requirements specified by this IP. All references to the word “should” in DOE-STD-1066-2012, Appendix C will be interpreted as a “shall.”
- e. Fire-rated assemblies shall be installed, as required by DOE-STD-1066-2012, the FHA, NFPA, or building code to reduce loss potentials.
- f. Nuclear facilities and laboratories shall have interior finish materials (e.g., decorations, furnishings, and exposed wall or insulating materials) that have an Underwriters Laboratories (ASTM E-84-13a/NFPA 255) flame spread rating of 25 or less, and smoke developed rating of 50 or less, except for acoustical materials, which shall have a smoke developed rating of 100 or less. The minimum average critical radiant flux for floor covering material shall be 0.45 watts per square centimeter, when tested in accordance with ASTM E-648 (NFPA 253).
- g. The “Annual Fire Protection Summary” (one hard copy and one electronic copy) for the previous calendar year shall be submitted by the contractor to the ORP director of WED by February 1 of each year, as required by DOE O 231.1B.
- h. MPFL values required by this IP, DOE O 420.1C, and DOE-STD-1066-2012, will utilize the criteria for cost estimating for reporting the Annual Fire Protection Summary as found in DOE O 231.1B, Attachment 3.
- i. New project and facility designs, 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).

8.0 REFERENCES

10 CFR 851, “Worker Safety and Health Program,” *Code of Federal Regulations*, as amended.

29 CFR 1910, “Occupational Safety and Health Standards,” *Code of Federal Regulations*, as amended.

ASTM E-84-13a, “Standard Test Method for Surface Burning Characteristics of Building Materials,” *Annual Book of ASTM Standards*, ASTM International, West Conshohocken, Pennsylvania.

ASTM E-648-10e1, “Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source,” *Annual Book of ASTM Standards*, ASTM International, West Conshohocken, Pennsylvania.

TITLE: FIRE PROTECTION PROGRAM

Number: MGT-ENG-IP-05 R3

Effective Date: 10/19/2016

Page: 17 of 19

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[DOE G 414.1-4, 2011, *Safety Software Guide for use with 10 CFR 830, Subpart A, Quality Assurance Requirements, and DOE O 414.1D, Quality Assurance*, U.S. Department of Energy, Washington, D.C., April 25.](#)

[DOE O 231.1B, 2011, *Environment, Safety and Health Reporting*, U.S. Department of Energy, Washington, D.C., June 27.](#)

[DOE O 414.1D, 2013, *Quality Assurance, Admin Chg 1*, U.S. Department of Energy, Washington, D.C., May 8.](#)

[DOE O 420.1C, 2015, *Facility Safety*, U.S. Department of Energy, Washington, D.C., February 27.](#)

[DOE O 440.1B, 2007, *Worker Protection Program for DOE \(Including the National Nuclear Security Administration\) Federal Employees*, U.S. Department of Energy, Washington, D.C., May 17.](#)

[DOE-STD-1066-2012, 2012, *Fire Protection*, U.S. Department of Energy Standard, U.S. Department of Energy, Washington, D.C., December.](#)

[DOE-STD-1137-2014, 2014, *Fire Protection Engineering Functional Area Qualification Standard*, U.S. Department of Energy Standard, Washington D.C., April.](#)

HNF-52336, 2012, *Authority, Responsibilities, and Duties of the Hanford Fire Marshal (Fire Marshal's Charter)*, Richland, Washington, October 29

HNF-36174, 2014, *DOE Fire Protection Handbook - Hanford Chapter*, Richland, Washington, October 1

NFPA 1, *Fire Code*[®], National Fire Protection Association, as amended.

NFPA 101, *Life Safety Code*[®], National Fire Protection Association, as amended.

NFPA 253, *Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source*, National Fire Protection Association, as amended.

NFPA 255, *Standard Method of Test of Surface Burning Characteristics of Building Materials*, National Fire Protection Association, as amended.

NFPA 5000, *Building Construction and Safety Code*[®], National Fire Protection Association, as amended.

[TRS-QSH-IP-08, *Records Management, Rev. 2*, U.S. Department of Energy, Office of River Protection, Richland, Washington.](#)

[WAC 173-303, "Dangerous Waste Regulations," *Washington Administrative Code*, as amended.](#)

TITLE: FIRE PROTECTION PROGRAM

Number: MGT-ENG-IP-05 R3

Effective Date: 10/19/2016

Page: 18 of 19

9.0 RECORDS

Records in Table 1 are generated by ORP during the performance of the procedure and shall be processed and maintained in accordance with TRS-QSH-IP-08, *Records Management*.

Table 1. Records Table.

Record Description	QA Record? Y/N	QA Record Retention L/NP	Vital Record? Y/N	Record Contain PII? Y/N	Record Schedule	Record Retention	Site Form #	Record Storage Location	Responsible for Submittal
Final approval memorandum, exemption and equivalency approval letter, and exemption and equivalency nonapproval letter	Y	L	Y	N	ADM 18.9	75 yrs	NA	IDMS	WED

L = lifetime.

N = no.

NA = not applicable.

NP = nonpermanent.

PII = personally identifiable information

QA = quality assurance.

Y = yes.

P = permanent.

Fire protection assessments shall be retained by the contractor and made available to ORP representatives upon request. Copies of the two most recent assessment reports shall be kept readily accessible on file.

10.0 ATTACHMENTS

Attachment 10.1, Contractor Requirements Document

TITLE: FIRE PROTECTION PROGRAM	Number:	MGT-ENG-IP-05 R3
	Effective Date:	10/19/2016
	Page:	19 of 19

**Attachment 10.1
Contractor Requirements Document**

The tank farm contractor, including flowdown to applicable subcontractors, shall implement Sections 5.2, 5.3, and 7.0 of this implementing procedure (IP).

For the Waste Treatment and Immobilization Plant contractor, this IP is only intended to describe other fire protection program elements unique to Hanford and provide general clarifications (Section 5.3). This IP does not supersede any fire protection requirements or expectations contained in the project safety requirements document, safety evaluation reports, or other departmental requirements for the Waste Treatment and Immobilization Plant Project.