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Acronyms

E&NS	Environmental & Nuclear Safety
FPP	Fire Protection Program
SRD	Safety Requirements Document
WTP	Hanford Tank Waste Treatment and Immobilization Plant
DOE/ORP	DOE Office of River Protection
DOE	United States Department of Energy
QFPE	Qualified Fire Protection Engineer
APM	Area Project Manager

1 Introduction

The Hanford Tank Waste Treatment and Immobilization Plant (WTP) Fire Protection Program (FPP) is established to protect the public and workers from the consequence of hazardous events associated with fires, to protect the environment, to conserve property, and to ensure the continuity of operations. One of the requirements of the FPP is to conduct FPP self-assessments to monitor the implementation of the FPP. Accordingly, an assessment schedule designed to implement this requirement is presented in Appendix A. The schedule requires monthly assessments commencing in January of 2004.

2 Team Leader

The manager of Radiological and Fire Safety, is responsible for implementation of this plan and assigning a Management Assessment Team Leader for each scheduled assessment.

3 Scope

These assessments focus on the requirements documented or found in the Safety Requirements Document (SRD) and delineated in 24590-WTP-PL-ESH-02-004, *WTP Fire Protection Program*. These requirements are captured in assessment cards through specific lines of inquiry as shown in Appendix B. A performance objective is stated for each assessment card along with applicable FPP criterion.

4 Checklist

Appendix A provides a schedule referencing the appropriate assessment cards in Appendix B.

5 Methodology

Fire Safety Management Assessments shall be conducted in accordance with 24590-WTP-GPP-MGT-002, *Management Assessment*. The lines of inquiry presented in Appendix B shall be used as a guide to review relevant project documents and work activities. The review objective is to determine the effectiveness of plans and measures developed to implement the requirements identified within the lines of inquiry.

During these reviews, negative and positive observations will be identified, documented and reported. 24590-WTP-GPP-QA-206, *Stop Work*, identifies that all personnel have the responsibility and authority to stop work IMMEDIATELY, without fear of reprisal, when personnel determines that such work or activity presents an imminent danger to their safety or health, the environment, facilities or property. All negative observations will be screened (with assistance from QA personnel) and documented in accordance with 24590-WTP-GPP-QA-201, *Corrective Action*, and/or 24590-WTP-GPP-CON-7104, *Nonconformance Reporting and Control*, as appropriate. Corrective action(s) will be developed and tracked to completion in the Corrective Action Management System. Recommendations for improvement will also be developed for negative observations that do not merit a Corrective Action or Nonconformance Report. These observations and their respective recommendations for improvement will be tracked to completion in the Management Assessment Database.

6 References

24590-WTP-GPP-CON-7104, *Nonconformance Reporting and Control*

24590-WTP-GPP-MGT-002, Management Assessment

24590-WTP-GPP-QA-206, *Stop Work*

24590-WTP-GPP-QA-201, *Corrective Action*

24590-WTP-PL-ESH-02-004, WTP Fire Protection Program

Appendix A, Fire Safety Management Assessment Schedule

Assessment Schedule			
Month	Calendar Year 1	Calendar Year 2	Calendar Year 3
January	Card 1 and 2	Card 4, 5, and 6	Card 12, 13, and 14
February	Card 9, 10, and 11	Card 21 and 75	Card 16, 17, and 18
March	Card 8, 19, and 20	Card 23 and 24	Card 25, 26, and 27
April	Card 28, 29, and 30	Card 31, 32, and 33	Card 34, 35, and 36
May	Card 37, 38, and 39	Card 40, 41, and 42	Card 43, 44, and 45
June	Card 46, 47, and 48	Card 49, 50, and 51	Card 52, 53, and 54
July	Card 55, 56, and 57	Card 58, 59, and 60	Card 61, 62, and 63
August	Card 64 and 65	Card 67, 68, and 69	Card 70, 71, and 72
September	Card 73 and 74	Card 76, 77, and 78	Card 79 and 80
October	Card 82 and 83	Card 84 and 85	Card 86 and 87
November	Card 88 and 89	Card 90 and 91	Card 92 and 93
December	Card 66 and 81	Card 3 and 7	Card 15 and 22

Appendix B Fire Safety Management Assessment Cards

Assessment Card 1: E&NS Manager Responsibilities

Performance Object. 1.1.

The Environmental and Nuclear Safety (E&NS) Manager is responsible for the WTP Fire Protection Program (WTP/FPP) and its implementation. Specific responsibilities include:

Criteria 1.1.1.

(24590-WTP-PL-ESH-02-004, 6.1) Develop, approve, and oversee implementation of the FPP

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Does the E&NS Manager provide budget to develop the FPP?		
Does the E&NS Manager provide oversight to the FPP?		
Does the E&NS Manager approve FPP document and implementing procedures?		
Does the E&NS Manager perform assessments of the FPP?		

Assessment Card 2: E&NS Manager Responsibilities	
Performance Object. 1.1.	
The E&NS Manager is responsible for the WTP/FPP and its implementation. Specific responsibilities include:	
Criteria 1.1.2.	
Develop, approve, and maintain preliminary and final Fire Hazards Analysis	
Lines of Inquiry	Yes/No/NA
Does the E&NS Manager provide trained and qualified personnel to develop the preliminary and final fire hazards analysis?	
Does the E&NS Manager approve the preliminary and final fire hazards analysis?	
Does the E&NS Manager provide personnel to maintain the preliminary and final fire hazards analysis.	
Does the E&NS Manager provide the budget for development of the preliminary and final fire hazards analysis?	
Does the E&NS Manager provide the budget for maintaining the preliminary and final fire hazards analysis?	

Assessment Card 3: E&NS Manager Responsibilities	
Performance Object. 1.1.	
The E&NS Manager is responsible for the WTP/FPP and its implementation. Specific responsibilities include:	
Criteria 1.1.3.	Develop, approve, and maintain Emergency Action Plans required by 29 Code of Federal Regulations (CFR) 1926.35 and 1910.38 for process facilities with nuclear safety implications.
Lines of Inquiry	Yes/No/NA
Does the E&NS Manager provide trained and qualified personnel to develop emergency action plans?	
Does the E&NS Manager approve emergency action plans?	
Does the E&NS Manager provide personnel to maintain emergency action plans?	
Does the E&NS Manager provide the budget for development of the emergency action plans?	
Does the E&NS Manager provide the budget for maintaining the emergency action plans?	
Evidence/Comments	

Assessment Card 6: E&NS Manager Responsibilities	
Performance Object. 1.1.	
The E&NS Manager is responsible for the WTP/FPP and its implementation. Specific responsibilities include:	
Criteria 1.1.6.	Develop fire protection policies and procedures for process facilities and coordinate the development of department specific implementing procedures.
Lines of Inquiry	Evidence/Comments
Yes/No/NA	
Does the E&NS Manager provide trained and qualified personnel to develop fire protection policies and procedures for process facilities?	
Does the E&NS Manager coordinate the development of department specific implementing procedures?	
Does the E&NS Manager provide the budget for development of fire protection policies and procedures?	

Assessment Card 7: E&NS Manager Responsibilities	
Performance Object. 1.1.	
The E&NS Manager is responsible for the WTP/FPP and its implementation. Specific responsibilities include:	
Criteria 1.1.7.	
Conduct Fire Protection Program Self-Assessments to monitor the implementation of the FPP.	Evidence/Comments
Lines of Inquiry	Yes/No/NA
Does the E&NS Manager provide trained and qualified personnel to conduct FPP self-assessments?	
Does the E&NS Manager provide the budget for conducting FPP self-assessments?	

Assessment Card 8: E&NS Manager Responsibilities

Performance Object. 1.1.

The E&NS Manager is responsible for the WTP/FPP and its implementation. Specific responsibilities include:

Criteria 1.1.8.

Identify, prioritize, and monitor the status of fire protection related appraisal findings and recommendations.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Does the E&NS Manager have a method to identify fire protection related appraisal findings and recommendations?		
Does the E&NS Manager have a method to prioritize fire protection related appraisal findings and recommendations?		
Does the E&NS Manager have a method to monitor fire protection related appraisal findings and recommendations?		

Assessment Card 9: E&NS Manager Responsibilities

Performance Object. 1.1.

The E&NS Manager is responsible for the WTP/FPP and its implementation. Specific responsibilities include:

Criteria 1.1.9.

Submittal of Exemption and Equivalence Requests to the Authority Having Jurisdiction for approval.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Does the E&NS Manager have a process to submit exemptions and/or equivalencies to DOE/ORP Office of Safety Regulation for approval?		

Assessment Card 10: E&NS Manager Responsibilities	
Performance Object. 1.1.	The E&NS Manager is responsible for the WTP/FPP and its implementation. Specific responsibilities include:
Criteria 1.1.10.	Performance of documented fire protection reviews by qualified fire protection engineers of new installations and design changes that may affect the facility Fire Hazards Analysis.
Lines of Inquiry	Yes/No/NA
Does the E&NS Manager provide trained and qualified fire protection engineers to perform reviews of new installations and design changes that may affect the facility Fire Hazards Analysis?	
Is there evidence that there are documented fire protection reviews, by qualified fire protection engineers, of new installations and design changes that may affect the facilities Fire Hazards analysis?	

Assessment Card 11: E&NS Manager Responsibilities

Performance Object. 1.1.

The E&NS Manager is responsible for the WTP/FPP and its implementation. Specific responsibilities include:

Criteria 1.1.11.

Provide and maintain a staff that includes trained and qualified Fire Protection Engineer(s).

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Does the E&NS Manager provide a staff of trained and qualified Fire protection engineers?		

Assessment Card 13: E&NS Manager Responsibilities

Performance Object. 1.1.

The E&NS Manager is responsible for the WTP/FPP and its implementation. Specific responsibilities include:

Assessment Card 14: E&NS Manager Responsibilities

Performance Object. 1.1.

The E&NS Manager is responsible for the WTP/FPP and its implementation. Specific responsibilities include:

Criteria 1.1.14.

Coordinate the conduct of required periodic fire drills.

Assessment Card 15: Operations Manager Responsibilities	
Performance Object. 2.1.	
The Operations Manager is responsible for implementation of the FPP requirements in the course of operating and commissioning the WTP process facilities and supervising the conduct of work. Specific responsibilities include:	
Criteria 2.1.1.	Perform inspections, tests, operation, and maintenance of installed fire protection features and systems.
Lines of Inquiry	Yes/No/N/A
Does the Operations Manager have trained personnel for inspection of installed fire protection features and systems?	
Does the Operations Manager have trained personnel for performing tests of installed fire protection features and systems?	
Does the Operations Manager have trained personnel for the operation of installed fire protection features and systems?	
Does the Operations Manager have trained personnel for the maintenance of installed fire protection features and systems?	

Assessment Card 16: Operations Manager Responsibilities

Performance Object. 2.1.

The Operations Manager is responsible for implementation of the FPP requirements in the course of operating and commissioning the WTP process facilities and supervising the conduct of work. Specific responsibilities include:

Criteria 2.1.2.

Provide fire protection training for site personnel.

Assessment Card 17: Operations Manager Responsibilities

Performance Object. 2.1.

The Operations Manager is responsible for implementation of the FPP requirements in the course of operating and commissioning the WTP process facilities and supervising the conduct of work. Specific responsibilities include:

Criteria 2.1.3.

Maintain the status of impaired fire protection features or systems and provide compensatory measures as required.

Assessment Card 18: Engineering Manager Responsibilities

Performance Object. 3.1.

The Engineering Manager is responsible for the design of structures, systems and components that constitute, or can affect, the fire protection features of the facility, and assuring that the design conforms to the FPP requirements. These responsibilities include providing:

Criteria 3.1.1.

Assuring that the scope and specifications for all goods and services requested and acquired conform to the specified requirements.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Does the Engineering Manager have a process to assure that the scope and specifications for the design of structures, systems, and components that constitute, or can affect, the fire protection features of the facility conform to the specified requirements.		

Assessment Card 19: Engineering Manager Responsibilities

Performance Object. 3.1.

The Engineering Manager is responsible for the design of structures, systems and components that constitute, or can affect, the fire protection features of the facility, and assuring that the design conforms with the FPP requirements. These responsibilities include providing:

Criteria 3.1.2.

Assuring that the design of fire protection systems is consistent with Safety Requirements Document.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Does the Engineering Manager have a process that assures that the designs of fire protection systems are consistent with the SRD requirements?		

Assessment Card 20: Engineering Manager Responsibilities

Performance Object. 3.1.

The Engineering Manager is responsible for the design of structures, systems and components that constitute, or can affect, the fire protection features of the facility, and assuring that the design conforms with the FPP requirements. These responsibilities include providing:

Criteria 3.1.3.

Assuring that plans and specifications receive a documented review by a qualified fire protection engineer (QFPE).

Assessment Card 22: Acquisition Manager Responsibilities		
Performance Object. 6.1.		
The Acquisitions Services Manager is responsible for assuring that Fire Protection Program requirements specified in procurement documents are communicated to the vendors and subcontractors, and that the supplied goods and services conform with the specified requirements.		
Criteria 6.1.1.		
N/A	Lines of Inquiry	Yes/No/NA
	Does the contract between Hanford Fire Department and WTP include applicable requirements of the FPP?	

Assessment Card 23: Quality Assurance Manager Responsibilities

Performance Object. 7.1.

The Quality Assurance Manager is responsible for assessing Fire Protection Program implementation in the design and operation of the WTP project. Specific responsibilities include:

Criteria 7.1.1.

Maintaining a Corrective Action Program to assure timely correction of deficiencies, including fire protection program deficiencies.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Has the corrective action program identified FPP deficiencies?		
Has the corrective action program identified fire detection or suppression system design deficiencies?		
Have deficiencies identified been closed in a timely manner?		

Assessment Card 25: Hanford Fire Department (HFD) Responsibilities		
Performance Object. 8.1.	The Hanford Fire Department is separate from WTP Project Team and supports operation of the Hanford Site. The following responsibilities for the Hanford Fire Department reflect their support to and interface with the Waste Treatment Project:	
Criteria 8.1.1.	Preparation of pre-fire plans for the Waste Treatment Plant.	
Lines of Inquiry	Yes/No/NA	Evidence/Comments
Does the contract between HFD and WTP specify a requirement for HFD to prepare pre-fire plans?		
Has the HFD prepared pre-fire plans for each of the WTP facilities?		

Assessment Card 26: Hanford Fire Department Responsibilities

Performance Object. 8.1.

The Hanford Fire Department is separate from WTP Project Team and supports operation of the Hanford Site. The following responsibilities for the Hanford Fire Department reflect their support to and interface with the Waste Treatment Project:

Criteria 8.1.2.

Maintain a trained and equipped staff of firefighters capable of responding to fire emergencies at the Waste Treatment Plant. (SRD 4.5-15)

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Does the HFD maintain a 24-hour staff of firefighters to respond to fires at the WTP?		
Does the HFD firefighters meet minimum DOE requirements for training?		

Assessment Card 27: Hanford Fire Department Responsibilities	
Performance Object. 8.1.	
Lines of Inquiry	Yes/No/NA
The Hanford Fire Department is separate from WTP Project Team and supports operation of the Hanford Site. The following responsibilities for the Hanford Fire Department reflect their support to and interface with the Waste Treatment Project:	
Criteria 8.1.3.	
Promptly inform WTP Management and the E&NS Manager of any circumstances which could inhibit them from providing a full emergency response to a fire event at the Waste Treatment Plant.	
Is there a method for HFD to notify WTP when circumstances would inhibit them from providing a full emergency response?	

Assessment Card 28: Hanford Fire Marshall Responsibilities

Performance Object. 9.1.

The Hanford Fire Marshall's office is a part of the Hanford Fire Department that is separate from WTP Project Team. The following responsibilities for the Hanford Fire Marshall reflect their interface with the Waste Treatment Project:

Criteria 9.1.1.

Support the Hanford Fire Department in the needs assessment for the Hanford site, including the needs of the Waste Treatment Plant. (*Hanford Site Emergency Response Needs WHC-SP-1108*)

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Is there evidence that the HFD Fire Marshall's office support the HFD in performing baseline needs assessment?		
Does the HFD Baseline Needs Assessment include the WTP?		

Assessment Card 29: Hanford Fire Marshall Responsibilities

Performance Object. 9.1.

The Hanford Fire Marshall's office is a part of the Hanford Fire Department that is separate from WTP Project Team. The following responsibilities for the Hanford Fire Marshall reflect their interface with the Waste Treatment Project:

Criteria 9.1.2.

Support the Hanford Fire Department in the preparation of pre-fire plans for the Waste Treatment Plant.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Is there evidence that the HFD fire marshal's office supports the HFD in preparation of pre-fire plans?		

Assessment Card 30: Fire Hazard Analysis Implementation

Performance Object. 10.1.

A Fire Hazard Analysis shall be prepared for the entire facility providing a systematic analysis that subdivides the facility into fire areas and evaluates the fire safety of each area, and the facility as a whole. The analysis shall, for each fire area:

Criteria 10.1.1.

Account for all radioactive, hazardous, and combustible materials, including estimates of their heat content.

Lines of Inquiry	Yes/No/N/A	Evidence/Comments
Does the FHA account for anticipated radioactive, hazardous, and combustible materials, including estimates of their heat content?		
		</td

Assessment Card 31: Fire Hazard Analysis Implementation

Performance Object. 10.1.

A Fire Hazard Analysis shall be prepared for the entire facility providing a systematic analysis that subdivides the facility into fire areas and evaluates the fire safety of each area, and the facility as a whole. The analysis shall, for each fire area:

Criteria 10.1.2.

Describe the processes performed and their potential for fire or explosion.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Does the FFA describe the processes performed and their potential for fire or explosion?		

Assessment Card 33: Fire Hazard Analysis Implementation

Performance Object. 10.1.

A Fire Hazard Analysis shall be prepared for the entire facility providing a systematic analysis that subdivides the facility into fire areas and evaluates the fire safety of each area, and the facility as a whole. The analysis shall, for each fire area:

Criteria 10.1.4.

List the fire detection and suppression equipment.

Assessment Card 35: Fire Hazard Analysis Implementation

Performance Object. 10.1.

A Fire Hazard Analysis shall be prepared for the entire facility providing a systematic analysis that subdivides the facility into fire areas and evaluates the fire safety of each area, and the facility as a whole. The analysis shall, for each fire area:

Criteria 10.1.6.

Consider other buildings or installations close to process buildings that contain flammable, combustible, or reactive liquid or gas storage.

Lines of Inquiry

Does the FHA consider other buildings or installations close to process buildings that contain flammable, combustible, or reactive liquid or gas storage?				

Assessment Card 36: Fire Hazard Analysis Implementation

Performance Object. 10.1.

A Fire Hazard Analysis shall be prepared for the entire facility providing a systematic analysis that subdivides the facility into fire areas and evaluates the fire safety of each area, and the facility as a whole. The analysis shall, for each fire area:

Criteria 10.1.7.

Confirm that the facility can be placed in a safe state during and after all credible fire and explosion conditions.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Does the FHA confirm that the facility can be placed in a safe state during and after all credible fire and explosion conditions?		

Assessment Card 37: Fire Hazard Analysis Implementation

Performance Object. 10.1.

A Fire Hazard Analysis shall be prepared for the entire facility providing a systematic analysis that subdivides the facility into fire areas and evaluates the fire safety of each area, and the facility as a whole. The analysis shall, for each fire area:

Criteria 10.1.8.

List equivalencies or exemptions granted for each fire area.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Does the FHA list equivalencies or exemptions granted for each fire area?		

Assessment Card 38: Emergency Action Plan Implementation

Performance Object. 11.1.

Each facility within the WTP project shall have an Emergency Action Plan (EAP) that provides, as a minimum, the following:

Criteria 11.1.1.

An evacuation floor plan identifying exit doors and windows

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Does each facilities EAP contain an evacuation floor plan that is clearly visible?		

Assessment Card 39: Emergency Action Plan Implementation

Performance Object 11.1.

Each facility within the WTP project shall have an EAP that provides, as a minimum, the following:

Criteria 11.1.2.

Posted emergency evacuation routes and procedures.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Does each facility EAP have posted emergency evacuation routes and procedures?		

Assessment Card 40: Emergency Action Plan Implementation

Performance Object. 11.1.

Each facility within the WTP project shall have an EAP that provides, as a minimum, the following:

Evidence/Comments

EVIDENCE COMMENTS	EVIDENCE	EVIDENCE
	Does each facility EAP have procedures for shutdown of critical equipment to assure that the facility is placed and maintained in a safe state?	

Assessment Card 41: Emergency Action Plan Implementation

Performance Object. 11.1.

Each facility within the WTP project shall have an E&AP that provides, as a minimum, the following:

Criteria 11.1.4.

Procedures for accounting for all personnel after evacuation.

Assessment Card 42: Emergency Action Plan Implementation

Performance Object. 11.1.

Each facility within the WTP project shall have an Emergency Action Plan that provides, as a minimum, the following:

Criteria 11.1.5.

A means of reporting fires and other emergencies.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Does each facility EAP have a means of reporting fires and other emergencies?		

Assessment Card 43: Emergency Action Plan Implementation

Performance Object. 11.1.

Each facility within the WTP project shall have an EAP that provides, as a minimum, the following:

Criteria 11.1.6.

Rescue and medical assistance information.

Assessment Card 44: Emergency Action Plan Implementation

Performance Object. 11.1.

Each facility within the WTP project shall have an EAP that provides, as a minimum, the following:

Criteria 11.1.7.

Designated access and egress for emergency responders

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Does each facility EAP have designated access and egress for emergency responders?		

Assessment Card 45: Emergency Action Plan Implementation

Performance Object. 11.1.

Each facility within the WTP project shall have an EAP that provides, as a minimum, the following:

Criteria 11.1.8.

Identification of the persons or organization(s) responsible for the Emergency Action Plan.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Does each facility EAP provide identification of the persons or organization(s) responsible for the Emergency Action Plan?		

Assessment Card 46: Emergency Action Plan Implementation

Performance Object. 11.1.

Each facility within the WTP project shall have an Emergency Action Plan that provides, as a minimum, the following:

Criteria 11.1.9.

Designated fire incident command and control location, including the role of the Hanford Fire Department and the Facility Operators.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Does each facility EAP designated fire incident command and control location, including the role of the Hanford Fire Department and the Facility Operators?		

Assessment Card 47: Emergency Action Plan Implementation

Performance Object. 11.2.

Fires and unusual fire system occurrences shall be reported to the Operations/Facility Manager and documented using the Hanford Fire Department's report of the fire incident, or other procedurally approved incident reporting system. Any fire events involving a "significant fire loss" (i.e. greater than \$5,000) shall be investigated by the Fire Marshall's Office or other qualified fire protection engineer. The results of this investigation shall be retained for annual E&NS reporting under DOE M 231.1-1

The following fires shall be reported in accordance with DOE M 232.1-1A.

Criteria 11.2.1.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Are there report procedures for reporting an Unusual Occurrence - All fires in primary confinement/containment boundaries?		

Assessment Card 48: Emergency Action Plan Implementation

Performance Object. 11.3.

Fires and unusual fire system occurrences shall be reported to the Operations/Facility Manager and documented using the Hanford Fire Department's report of the fire incident, or other procedurally approved incident reporting system. Any fire events involving a "significant fire loss" (i.e. greater than \$5,000) shall be investigated by the Fire Marshall's Office or other qualified fire protection engineer. The results of this investigation shall be retained for annual E&NS reporting under DOE M 231.1-1

The following fires shall be reported in accordance with DOE M 232.1-1A.

Criteria 11.3.1.

Off-Normal Event – (1) Any fire or explosion not required to be reported as an Unusual Occurrence that activates a fire suppression system (e.g. Halon discharge, sprinkler heads activating) or disrupts normal facility operations. (2) An unplanned fire that takes longer than 10 minutes to extinguish following the arrival of fire protection personnel; this does not include incipient fires. (3) An external fire, explosion, implosion caused by factors that are not under the control of the WTP.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Are there report procedures for reporting an Off-Normal Event – (1) Any fire or explosion not required to be reported as an Unusual Occurrence that activates a fire suppression system (e.g. Halon discharge, sprinkler heads activating) or disrupts normal facility operations?		
Are there report procedures for reporting an Off-Normal Event – An unplanned fire that takes longer than 10 minutes to extinguish following the arrival of fire protection personnel; this does not include incipient fires?		
Are there report procedures for reporting an Off-Normal Event – An external fire, explosion, implosion caused by factors that are not under the control of the WTP?		

Assessment Card 49: Fire Prevention Program Implementation

Performance Object. 12.1.

Fire prevention is the responsibility of every person working at the WTP Project.

Criteria 12.1.1.

All personnel shall receive basic fire safety training as part of the Hanford General Employee Training (HGET) prior to being badged to work on the site.

Assessment Card 50: Fire Prevention Program Implementation	
Performance Object. 12.1.	Criteria 12.1.1.
Fire prevention is the responsibility of every person working at the WTP Project.	Fire prevention procedures provide for safety-driven housekeeping practices that limit the accumulation of combustible materials that can initiate or cause the spread of fire within the facility.
Lines of Inquiry	Evidence/Comments
Are there fire prevention procedures for safety-driven housekeeping practices that limit the accumulation of combustible materials that can initiate or cause the spread of fire within the facility?	Yes/No/NA

Assessment Card 51: Ignition Source Control Implementation

Performance Object. 13.1.

All work involving welding, cutting, heating, or grinding which can ignite combustible materials shall be governed by a Hot Work Permit under 24590-WTP-GPP-
SIND-035, *Welding and Cutting Safety*.

Criteria 13.1.1.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Are hot work permits issued for welding?		
Are hot work permits issued for cutting?		
Are hot work permits issued for heating?		
Are hot work permits issued for grinding?		

Assessment Card 52: Fire Watch Program

Performance Object. 14.1.

A fire watch may be required when hot work is being performed under site procedures using a hot work permit. Fire watches may also be required as a result of an impairment to permanent fire protection features, such as a breach in a fire barrier, a fire door which is blocked open, or a suppression or detection system which is not completely functional.

Criteria 14.1.1.

Fire watches may also be required as a result of an impairment to permanent fire protection features, such as a breach in a fire barrier, a fire door which is blocked open, or a suppression or detection system which is not completely functional.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Are procedures in place to provide compensatory measures, as needed, for impaired fire protection systems?		

Assessment Card 53: Hot Work Fire Watches Implementation		
Performance Object. 15.1.	Criteria 15.1.1.	
Hot work fire watches are trained persons stationed in plant areas for the purpose of detecting, reporting, and, if appropriate, suppressing any fires resulting from flames or sparks from welding, cutting, or grinding operations.	The fire watch shall be equipped with a fire extinguisher or other fire extinguishing equipment immediately available in the work area and maintained in a state of readiness for instant use.	
Lines of Inquiry	Yes/No/NA	
Are procedures in place that require portable fire extinguishers to be available?		
Are procedures in place that meet minimum NFFPA requirements for inspection and maintenance of fire extinguishers?		

Assessment Card 54: Hot Work Fire Watches Implementation

Performance Object. 15.1.

Hot work fire watches are trained persons stationed in plant areas for the purpose of detecting, reporting, and, if appropriate, suppressing any fires resulting from flames or sparks from welding, cutting, or grinding operations.

Criteria 15.1.2.

Fire watches shall have available in the immediate area a means of reporting any fires.

Assessment Card 55: Hot Work Fire Watches Implementation

Performance Object. 15.1.

Hot work fire watches are trained persons stationed in plant areas for the purpose of detecting, reporting, and, if appropriate, suppressing any fires resulting from flames or sparks from welding, cutting, or grinding operations.

Criteria 15.1.3.

Fire watches shall remain in the immediate area of work and for a period of 30 minutes after the work has ceased in order to watch for any smoldering fires

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Do fire watches monitor the area for at least 30 minutes from the time hot work has ceased?		

Assessment Card 56: Hot Work Fire Watches Implementation		
Performance Object. 15.1.	Hot work fire watches are trained persons stationed in plant areas for the purpose of detecting, reporting, and, if appropriate, suppressing any fires resulting from flames or sparks from welding, cutting, or grinding operations.	
Criteria 15.1.4.	Hot work fire watches shall have no other responsibilities, which can distract from their ability to detect fires.	
Lines of Inquiry	Yes/No/NA	Evidence/Comments
Do fire watches perform duties other than fire watch?		

Assessment Card 57: Hot Work Fire Watches Implementation	
Performance Object. 15.1.	Hot work fire watches are trained persons stationed in plant areas for the purpose of detecting, reporting, and, if appropriate, suppressing any fires resulting from flames or sparks from welding, cutting, or grinding operations.
Criteria 15.1.5.	Hot work fire watches shall be trained in the anticipated fire hazards to be expected and in the use of fire suppression equipment provided.
Lines of Inquiry	Yes/No/NA
Is there evidence that demonstrates that fire watches have been trained in the anticipated fire hazards to be expected?	
Is there evidence that demonstrates that fire watches have been trained in the use of fire suppression equipment?	

Assessment Card 58: Hot Work Fire Watches Implementation

Performance Object. 15.1.

A fire watch may be required when hot work is being performed under site procedures using a hot work permit. Fire watches may also be required as a result of an impairment to permanent fire protection features, such as a breach in a fire barrier, a fire door which is blocked open, or a suppression or detection system which is not completely functional.

Criteria 15.1.6.

Hot work fire watches shall be qualified to meet the requirements of OSHA 29CFR1926.352(e). (SRD 4.5-15)

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Are personnel instructed as to the specific anticipated fire hazards and how the firefighting equipment provided is to be used?		

Assessment Card 60: Compensatory Fire Watch Implementation	
Performance Object. 16.1.	Compensatory actions are required whenever fire protection systems are impaired from performing their normal functions.
Criteria 16.1.2.	Roving fire patrols are conducted by individuals who inspect areas for fire hazards and/or other abnormal conditions, including excessive fire loading and breached fire barriers.
Lines of Inquiry	Yes/No/NA
Are roving fire patrols periodically inspecting areas for fire hazards and/or other abnormal conditions, including excessive fire loading and breached fire barriers?	

Assessment Card 62: Compensatory Fire Watch Implementation	
Performance Object. 16.1.	Criteria 16.1.4.
Compensatory actions are required whenever fire protection systems are impaired from performing their normal functions.	Compensatory fire watches may perform other duties, such as HP Technician, operations personnel, or security patrol as long as they are able to observe the area for unsafe fire conditions.
Lines of Inquiry	Yes/No/NA
Do compensatory fire watches perform other duties which prevent them from observing the area for unsafe fire conditions?	
Evidence/Comments	

Assessment Card 63: Compensatory Fire Watch Implementation

Performance Object. 16.1.

Compensatory actions are required whenever fire protection systems are impaired from performing their normal functions.

Criteria 16.1.5.

Compensatory fire watches are qualified by virtue of having successfully completed HGET and having been briefed in their duties as a compensatory fire watch.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Is there evidence that compensatory fire watches completed HGET and been briefed on their duties as compensatory fire watch?		

Assessment Card 67: WTP Fire Fighting

Performance Object. 17.1.

An effective fire fighting capability is maintained by the Hanford Fire Department who has the responsibility for responding to fires at the Waste Treatment Plant.

Criteria 17.1.4.

The need for additional offsite support, such as Mutual Aid, shall be as determined by the Incident Commander.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Does the Hanford Fire Department maintain an effective fire fighting capability to respond to fires at the WTP		

Assessment Card 68: Inspection, Testing, and Maintenance Program Implementation		
Performance Object. 18.1.	When a fire protection system is turned over for operation, it shall be inspected and maintained in accordance with the applicable NFPA Codes and in accordance with the manufacturer's recommendations.	
Criteria 18.1.1.	Procedures shall be prepared to incorporate the inspection and maintenance requirements and these shall be added to the inspection and maintenance schedules controlling work at the facility.	
Lines of Inquiry	Yes/No/NA	Evidence/Comments
Are there procedures for the inspection of fire protection systems?		
Are procedures for the inspection of fire protection systems incorporated into the inspection and maintenance schedule?		

Assessment Card 69: Inspection, Testing, and Maintenance Program Implementation

Performance Object. 18.1.

When a fire protection system is turned over for operation, it shall be inspected and maintained in accordance with the applicable NFPA Codes and in accordance with the manufacturer's recommendations.

Criteria 18.1.2.

Management will ensure that all inspections, testing, and maintenance activities are done by a qualified person, or by individuals under the direction of a qualified person.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Is there a process to ensure that all inspections, testing, and maintenance activities are done by a qualified person, or by individuals under the direction of a qualified person?		

Assessment Card 70: Impairment Tracking

Performance Object. 19.1.

Fire protection systems which are not available for use or for automatic operation, as designed, shall be considered impaired and will not be relied upon to protect the area where installed. Compensatory actions shall be implemented to offset the increased hazard due to the system unavailability.

Criteria 19.1.1.

These compensatory actions may include establishing a backup fire suppression capability, assigning a compensatory fire watch, or both.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Is there a procedure to establish compensatory actions for impaired fire protection systems?		

Assessment Card 72: Impairment Tracking

Performance Object. 19.1.

Fire protection systems which are not available for use or for automatic operation, as designed, shall be considered impaired and will not be relied upon to protect the area where installed. Compensatory actions shall be implemented to offset the increased hazard due to the system unavailability.

Criteria 19.1.3.

Impaired fire protection equipment shall be returned to an operable status as soon as feasible.

Lines of Inquiry	Yes/No/NA	Evidence/Comments
Is their evidence of a process to return impaired fire protection equipment to operable status as soon as possible?		

Assessment Card 73: Impairment Tracking	
Performance Object 19.2.	
The following impairments shall be reported in accordance with DOE M 2332.1-1A.	
Criteria 19.2.1.	Off-Normal Event - Events or conditions indicative of failure or performance degradation of systems designed, installed, and operated for the protection of facility or co-located facility workers (e.g., fire protection systems, excluding those in office spaces) which prevent satisfactory performance of their design function (e.g., to alarm, actuate, etc.) when the system is required to be operable or in operation.
Lines of Inquiry	Yes/No/NA
Are there procedures in place to report off-normal events involving fire detection and suppression systems?	

Assessment Card 74: Pre-Fire Plans	
Performance Object. 20.1.	The WTP shall have on file, and ready for use, a Pre-Fire Plan.
Criteria 20.1.1.	The Pre-Fire Plan should assign individual and alternate responsibilities for responding to a fire alarm or call; assessing the situation, suppressing incipient fires, assembling the emergency services organization (e.g. Hanford Fire Department, EMTs, WTP support personnel, etc.), personnel evacuation, orderly shutdown of processes, and safeguarding (if necessary) and controlling radioactive materials and hazardous materials.
Lines of Inquiry	Yes/No/NA
Does the pre-fire plan assign individual and alternate responsible for responding to a fire alarm or call?	
Does the pre-fire plan assign individual and alternate responsible for assessing the situation?	
Does the pre-fire plan assign individual and alternate responsible for suppressing incipient fires?	
Does the pre-fire plan assign individual and alternate responsible for assembling the emergency services organization?	
Does the pre-fire plan assign individual and alternate responsible for personnel evacuation?	
Does the pre-fire plan assign individual and alternate responsible for orderly shutdown of processes?	
Does the pre-fire plan assign individual and alternate responsible for safeguarding (if necessary) and controlling radioactive materials and hazardous materials?	

Assessment Card 75: Pre-Fire Plans	
Performance Object. 20.1.	
The WTP shall have on file, and ready for use, a Pre-Fire Plan.	
Criteria 20.1.2.	
The plan should clearly indicate, preferably with the help of site plans and drawings, the locations of the fire department-compatible connections (FDC) and fire-fighting equipment, such as portable extinguishers, automatic fire suppression systems, sectional valves, standpipes, hydrants, and hoses.	
Lines of Inquiry	Evidence/Comments
Does the WTP pre-fire plans indicate the locations of FDC?	Yes/No/NA
Does the WTP pre-fire plans indicate the locations of portable extinguishers?	
Does the WTP pre-fire plans indicate the locations of automatic fire suppression systems?	
Does the WTP pre-fire plans indicate the locations of sectional valves?	
Does the WTP pre-fire plans indicate the locations of hydrants?	

Assessment Card 77: Pre-Fire Plans	
Performance Object. 20.1.	
The WTP shall have on file, and ready for use, a Pre-Fire Plan.	
Criteria 20.1.4.	The Pre-Fire Plan should be prepared by the Hanford Fire Department with inputs from the Project.
Lines of Inquiry	Yes/No/NA
Does the WTP have pre-plans on file and ready for use?	
Is there evidence that WTP project has provided input into the pre-fire plans?	

Assessment Card 78: Pre-Fire Plans		
Performance Object. 20.1.		
The WTP shall have on file, and ready for use, a Pre-Fire Plan.		
Criteria 20.1.5.		
Lines of Inquiry	Yes/No/NA	Evidence/Comments
Is there evidence that the Hanford Fire Department has been given annual tours of the WTP?		

Assessment Card 79: Purpose	Performance Object. 21.1.	Criteria 21.1.1.	The occurrence of a fire, explosion, or related event;	Lines of Inquiry	Yes/No/NA	Does the FPP delineate programmatic requirements that will minimize the potential for a fire?			

Assessment Card 82: Purpose	Performance Object. 21.1.	Criteria 21.1.4.	Critical process controls and safety design class systems being damaged as a result of a fire and related events.	Lines of Inquiry	Yes/No/NA	Evidence/Comments				
				Does each WTP Critical process meet FPP requirements to minimize the potential for loss of critical processes during a fire event?						

Assessment Card 83: Purpose	
Performance Object. 21.2.	
The Program has as its primary objectives the prevention of fires in process facilities that can impact upon the nuclear safety of the facility, as defined in the PSAR and SRD. The Fire Protection Program also includes the Balance of Facilities (BOF). Should a fire occur, the Fire Protection Program is intended to minimize the consequences of the fire.	
Criteria 21.2.1.	This is accomplished by providing for detection, containment, and extinguishment of fires in order to protect Safety Design Class (SDC) structures, systems, and components from the effects of a fire.
Lines of Inquiry	Yes/No/NA
Are facilities with SDC systems provided with detection?	
Are facilities with SDC systems provided with containment?	
Are facilities with SDC systems provided with suppression?	

Assessment Card 88: Scope	
Performance Object. 22.5.	
The Fire Protection Program assigns responsibilities for the WTP design and operations to prevent or to mitigate fires; to develop and maintain administrative controls, procedures, and programs; and identify qualifications of personnel that will perform activities to achieve fire safety in the buildings.	
Criteria 22.1.5.	Life safety and facility safety functions required by the Program may include any activity, system, structure, or component that is necessary to ensure:
The Fire Protection Program shall be in effect during design, startup, operation, maintenance, and deactivation and shall apply to any individual performing work for or at the WTP Facility.	
Lines of Inquiry	Yes/No/NA
Is there documented evidence that the FPP is in effect during design?	
Is there documented evidence that the FPP is in effect during start-up?	
Is there documented evidence that the FPP is in effect during operation?	
Is there documented evidence that the FPP is in effect during maintenance?	
Is there documented evidence that the FPP is in effect during deactivation?	
Is there documented evidence that the FPP applies to personnel performing work?	

Assessment Card 92: Requirements	
Performance Object. 23.1.	The safety design requirements are found in the SRD Volume II, 24590-WTP-SRD-ESH-01-001-02, specifically Safety Criterion 4.5 Fire Protection. The Safety Requirements Document (SRD) (24590-WTP-SRD-ESH-01-001-02) cites the following as being the implementing codes and standards for the fire protection program:
Criteria 23.1.4.	The fire protection design criteria of structures, systems, and components (SSCs) are specified in Chapter 13 of 24590-WTP-DB-ENG-01-001, <i>Basis of Design (BOD)</i> .
Lines of Inquiry	Yes/No/NA
Is the fire protection design criteria of structures, systems, and components specified in Chapter 13 of the BOD?	
Are changes in the BOD reviewed by WTP Radiological and Fire Safety?	

Assessment Card 93: Requirements	
Performance Object. 23.1.	
<p>The safety design requirements are found in the SRD Volume II, 24590-WTP-SRD-ESH-01-001-02, specifically Safety Criterion 4.5 Fire Protection. The Safety Requirements Document (SRD) (24590-WTP-SRD-ESH-01-001-02) cites the following as being the implementing codes and standards for the fire protection program:</p>	
Criteria 23.1.5.	Operation and maintenance (O&M) requirements are documented in 24590-WTP-RPT-OP-01-001, <i>Operational Requirements Document (ORD)</i> .
Lines of Inquiry	Yes/No/NA
Does the ORD include the implementing codes and standards for the fire protection program?	
Are changes in the ORD reviewed by WTP Radiological and Fire Safety?	