Table 1 - Work Smart Standards (Environmental Hazards)

Activity/Hazard/Issue	Supplemental Criteria	KY (Paducah), OH (Portsmouth), TN (Oak Ridge Reservation)
Species of plant that are state listed as endangered, threatened, or in need of management	TN species are listed in TN 0400-6-2-.04; lists of KY species are compiled by the KY Nature Preserve Commission and published annually in Transactions of the Kentucky Academy of Science; OH species are listed in OAC 1501:18-1-10.	• 301 KAR 4, Wildlife • TN 0400-6-2, Rare Plant Protection and Conservation Regulations
Sites, buildings, structures, or objects of historical significance	Consult appropriate Cultural Resource Coordinator.	• 36 CFR 60, National Register of Historic Places • 36 CFR 63, Determinations of Eligibility for Inclusion in the National Register of Historic Places • 36 CFR 65, National Historic Landmarks Program • 36 CFR 78, Waiver of Federal Agency Responsibilities Under Section 110 of the National Historic Preservation Act • 36 CFR 79, Curation of Federally-Owned and Administered Archaeological Collections • 36 CFR 800, Protection of Historic and Cultural Properties • 43 CFR 7, Protection of Archaeological Resources • OAC 149-1-02, Preservation of Historic Places • IG for TN - Programmatic Agreement for Management of Historical and Cultural Properties at the Oak Ridge Reservation
Alteration to, damage to, or destruction of a facility eligible for listing on the National Register of Historic Places	Consult appropriate Cultural Resource Coordinator.	• 36 CFR 60, National Register of Historic Places • 36 CFR 63, Determinations of Eligibility for Inclusion in the National Register of Historic Places • 36 CFR 800, Protection of Historic and Cultural Properties • OAC 149-1-02, Preservation of Historic Places • IG for TN - Programmatic Agreement for Management of Historical and Cultural Properties at the Oak Ridge Reservation
Nationally significant property that illustrates or commemorates the history or prehistory of the U.S.	Consult appropriate Cultural Resource Coordinator.	• 36 CFR 65, National Historic Landmarks Program • OAC 149-1-02, Preservation of Historic Places • IG for TN - Programmatic Agreement for Management of Historical and Cultural Properties at the Oak Ridge Reservation

Table 1 - Work Smart Standards (Environmental Hazards)

Activity/Hazard/Issue	Supplemental Criteria	KY (Paducah), OH (Portsmouth), TN (Oak Ridge Reservation)
Human remains, structures, or artifacts that are at least 100 years old		• 36 CFR 79, Curation of Federally-Owned and Administered Archaeological Collections • 36 CFR 296, Protection of Archaeological Resources: Uniform Regulations • 36 CFR 800, Protection of Historic and Cultural Properties • OAC 149-1-02, Preservation of Historic Places • IG for TN - Programmatic Agreement for Management of Historical and Cultural Properties at the Oak Ridge Reservation
Excavation		• 43 CFR 10, Native American Graves Protection and Repatriation Regulations • 401 KAR 5, Water Quality • 401 KAR 53, Ambient Air Quality • OAC 1501:15-1, Excavation • OAC 3745-400, Construction and Demolition Debris Removal
Construction on prime farmland		• 7 CFR 658, Farmland Protection Policy Act • OH - Not found in PORTS work scopes • TN - Not found in ORR work scopes
Generation, handling, or processing of radioactive materials		• DOE Order 5400.5, Chg. 2, Radiation Protection of the Public and the Environment
Transfer of radioactive material		• DOE Order 5400.5, Chg. 2, Radiation Protection of the Public and the Environment
Radioactive effluent discharges to: air, surface water, groundwater, or a sanitary sewer		• DOE Order 5400.5, Chg. 2, Radiation Protection of the Public and the Environment
Management of property containing residual radioactive material		• 40 CFR 300, National Oil and Hazardous Substances Pollution Contingency Plan • DOE Order 5400.5, Chg. 2, Radiation Protection of the Public and the Environment

Table 1 - Work Smart Standards (Environmental Hazards)

Activity/Hazard/Issue	Supplemental Criteria	KY (Paducah), OH (Portsmouth), TN (Oak Ridge Reservation)
Free release of materials suspected of having radioactive contamination	Materials are not suspect if they have been demonstrated not to contain surface or volumetric contamination resulting from DOE activities.	• DOE Order 5400.5, Chg. 2, Radiation Protection of the Public and the Environment
Environmental protection program	This AHI captures the sufficiency standards for the environmental protection program. Necessary standards are captured in other AHIs.	• DOE Order 5400.1, Chg. 1, General Environmental Protection Program • DOE Order 5400.5, Chg. 2, Radiation Protection of the Public and the Environment • DOE- M 231.1-1, Environment, Safety, and Health Reporting, Ch. I, Section 1
Radioactive waste management	LLW and TRU	• DOE Order 5400.5, Chg. 2, Radiation Protection of the Public and the Environment • IA - wherever DOE O or M 435.1 refers to either being subject to or requiring compliance with either DOE O or M 435.1, this shall be read as subject to or requiring compliance with the contract. • IA - wherever DOE M 435.1 requires submission to or obtaining approvals from DOE HQ elements, the contractor shall satisfy this by submission of information or request to DOE ORO. • DOE M 435.1, chapter I, including only the following sections, as modified: I.1.C I.2.F.(2) (IA - A radioactive waste management basis will be developed, reviewed, approved, and maintained for each DOE radioactive waste management facility, operation, and activity. The radioactive waste management basis may be specified in multiple documents. for new facilities, operations, and activities, the basis will be approved before operations begin.) I.2.F.(4) I.2.F.(5) (IA - Section will be read as follows: (5) environmental restoration, decommissioning, and other cleanup waste. Ensuring the management and disposal of radioactive waste resulting from environmental restoration activities, including decommissioning, meet

Table 1 - Work Smart Standards (Environmental Hazards)

Activity/Hazard/Issue	Supplemental Criteria	KY (Paducah), OH (Portsmouth), TN (Oak Ridge Reservation)
		substantive requirements. Environmental restoration activities using the CERCLA process (in accordance with Executive Order 12580) may demonstrate compliance with substantive requirements (including the performance assessment and performance objectives, as well as the composite analysis) through the CERCLA process. Environmental restoration activities that will result in the off-site management and disposal of radioactive waste must meet the applicable contract requirements. Field elements performing environmental restoration activities involving development and management of radioactive waste disposal facilities under the CERCLA process shall: (a) submit certification to the deputy assistant secretary for environmental restoration that compliance with the substantive contract requirements have been met through application of the CERCLA process; and (b) submit the decision document, such as the record of decision, or any other document that serves as the authorization to dispose, to the deputy assistant secretary for environmental restoration for approval.) I.2.F.(6) (IA - contractor is responsible for developing only the technical aspects of waste acceptance requirements.) I.2.F.(7), (8), (11), (12) I.2.F.(13), (14), (15), (16), (17), (19), (20) I.2.G.(1), (2) • DOE M 435.1, chapter III, except section III.C, III.F, and modified as follows: III.D. (IA - the RWMB will be tailored to each facility, and it will incorporate salient requirements from documents such as the following: radiation protection program, health and safety plans, SARs, TSRs, and procedures.) III.M.(1) and (2) (IA - site evaluation and facility design of existing facilities shall meet the requirements of RCRA and safety basis documentation as amended by a facility-specific evaluation that considers and tailors the requirements of chapter III.M.(2). IA - the parameters cited in III.M.(2) will be considered for facility requirements and general design criteria. IA - III.M.2.(d) instrumentation and controls requirements are applicable only to

Table 1 - Work Smart Standards (Environmental Hazards)

Activity/Hazard/Issue	Supplemental Criteria	KY (Paducah), OH (Portsmouth), TN (Oak Ridge Reservation)
		liquid waste.) III.N.(1) (IA - storage prohibitions. Transuranic waste in storage shall not be readily capable of detonation, explosive decomposition, reaction at anticipated pressures and temperatures, or explosive reaction with water, except as authorized by the RWMB.) III.P (IA - transuranic waste shall be disposed in accordance with the requirements of 40 CFR part 191, environmental radiation protection standards for management and disposal of spent nuclear fuel, high-level and transuranic radioactive wastes, except as allowed by the definition of transuranic waste.) III.Q. (IA - the parameters cited in III.Q.(1) will be considered for sampling or monitoring.) • DOE M 435.1, chapter IV, except section IV.C, IV.F, and modified as follows: IV.D. (IA - the RWMB will be tailored to each facility, and it will incorporate salient requirements from documents such as the following: radiation protection program, health and safety plans, SARs, TSRs, and procedures.) IV.M. (IA - the parameters cited in IV.M.(2) will be considered for facility requirements and general design criteria.) IV.N.(1) (IA - storage prohibitions. Low-level waste in storage shall not be readily capable of detonation, explosive decomposition, reaction at anticipated pressures and temperatures, or explosive reaction with water, except as authorized by the RWMB.) IV.N.(2) (IA - consistent with provisions in item (2), the DOE ORO authorizes storage of legacy waste consistent with plans and budget for dispositioning the waste and authorizes the conditions for when waste can be stored longer than one year through the RWMB. Storage integrity will be assured through a graded approach using a variety of storage facilities, including outside storage for legacy waste. In all cases, a combination of waste characteristics, container characteristics, storage environment, inspections, and monitoring will be taken into consideration and will be authorized through the RWMB.) IV.N.(7) (IA - the second sentence of item (7) shall be read as: accumulation of LLW in work areas is to be minimized. LLW will be

Table 1 - Work Smart Standards (Environmental Hazards)

Activity/Hazard/Issue	Supplemental Criteria	KY (Paducah), OH (Portsmouth), TN (Oak Ridge Reservation)
		"processed out" of work areas where it is being accumulated within 120 days of final closure of the container. It is generally intended that final closure will be when the container is filled to capacity. "process out" means transfer to proper treatment, disposal, or storage [based on characterization data]). IV.R. (IA - the parameters cited in IV.r.(1) will be considered for sampling or monitoring.) • DOE O 435.1, CRD I.A and I.D • IG - DOE G 435.1, Radioactive Waste Management
Pollution prevention		• 42 U.S.C. §§13101, Pollution Prevention Act, Et Seq
Environmental assessment		• 10 CFR 1021, National Environmental Policy Act-Implementing Procedures

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Table 2 – Source of Work Smart Standards

For the following Work Smart Standards to be complete, they must be applied with the Associated Contractual Requirements.

The following table provides the Work Smart Standards for EMEF Operations sorted by the source of the standard, and any Implementation Assumptions and Implementation Guidelines.

Federal Statutes & Regulations	
WSS Number	**WSS Title, Implementation Assumptions and Implementation Guidelines**
7 CFR 658	Farmland Protection Policy Act
10 CFR 71	Packaging and Transportation of Radioactive Material
10 CFR 830	Nuclear Safety Management, Subpart A, Quality Assurance Requirements (IA - Applicable to activities that have the potential to cause radiological harm)
10 CFR 830	Nuclear Safety Management, Subpart B, Safety Basis Requirements
10 CFR 835	Occupational Radiation Protection
10 CFR 850	Beryllium Rule
10 CFR 1021	National Environmental Policy Act-Implementing Procedures
10 CFR 1022	Compliance with Floodplain/Wetlands Environmental Review Requirements
14 CFR 77	Objects Affecting Navigable Airspace
14 CFR 91	General Operating and Flight Rules
14 CFR 135	Operating Requirements: Commuter and On-Demand Operations
15 CFR 990	Natural Resource Damage Assessments
18 CFR 1304	Approval of Construction in the Tennessee River System and Regulation of Structures
29 CFR 1904	Recording and Reporting Occupational Injuries and Illnesses
29 CFR 1910	Occupational Safety & Health Standards
29 CFR 1926	Safety and Health Regulations for Construction
33 CFR 320	General Regulatory Policies
33 CFR 322	Permits for Structures or Work in or Affecting Navigable Waters of the United States
33 CFR 323	Permits for Discharges of Dredged or Fill Material Into Waters of the United States
33 CFR 325	Processing of Department of the Army Permits
33 CFR 330	Nationwide Permit Program
36 CFR 60	National Register of Historic Places
36 CFR 63	Determinations of Eligibility for Inclusion in the National Register of Historic Places
36 CFR 65	National Historic Landmarks Program
36 CFR 78	Waiver of Federal Agency Responsibilities Under Section 110 of the National Historic Preservation Act
36 CFR 79	Curation of Federally-Owned and Administered Archaeological Collections
36 CFR 296	Protection of Archaeological Resources: Uniform Regulations

Table 2 – Source of Work Smart Standards

Federal Statutes & Regulations	
WSS Number	**WSS Title, Implementation Assumptions and Implementation Guidelines**
36 CFR 800	Protection of Historic and Cultural Properties
40 CFR 60	Standards of Performance for New Stationary Sources
40 CFR 61	National Emission Standards for Hazardous Air Pollutants
40 CFR 63	National Emission Standards for Hazardous Air Pollutants for Source Categories
40 CFR 68	Chemical Accident Prevention Provisions
40 CFR 80	Regulation of Fuels and Fuel Additives
40 CFR 82	Protection of Stratospheric Ozone
40 CFR 110	Discharge of Oil
40 CFR 112	Oil Pollution Prevention
40 CFR 116	Designation of Hazardous Substances
40 CFR 117	Determination of Reportable Quantities for Hazardous Substances
40 CFR 122	EPA Administered Permit Programs: The National Pollutant Discharge Elimination System
40 CFR 129	Toxic Pollutant Effluent Standards
40 CFR 141	National Primary Drinking Water Regulations
40 CFR 142	National Primary Drinking Water Regulations Implementation
40 CFR 143	National Secondary Drinking Water Regulations
40 CFR 144	Underground Injection Control Program
40 CFR 146	Underground Injection Control Program: Criteria and Standards
40 CFR 170	Worker Protection Standard
40 CFR 171	Certification of Pesticide Applicators
40 CFR 232	404 Program Definitions; Exempt Activities Not Requiring 404 Permits
40 CFR 243	Guidelines for the Storage and Collection of Residential, Commercial, and Institutional Solid Waste
40 CFR 244	Solid Waste Management Guidelines for Beverage Containers
40 CFR 246	Source Separation for Materials Recovery Guidelines
40 CFR 247	Comprehensive Procurement Guideline for Products Containing Recovered Materials
40 CFR 257	Criteria for Classification of Solid Waste Disposal Facilities and Practices
40 CFR 258	Criteria for Municipal Solid Waste Landfills
40 CFR 260	Hazardous Waste Management System: General
40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 262	Standards Applicable to Generators of Hazardous Waste
40 CFR 263	Standards Applicable to Transporters of Hazardous Waste
40 CFR 264	Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities

Table 2 – Source of Work Smart Standards

Federal Statutes & Regulations	
WSS Number	**WSS Title, Implementation Assumptions and Implementation Guidelines**
40 CFR 265	Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 266	Standards for the Management of Specific Hazardous Wastes and Specific Type of Hazardous Waste Management Facilities
40 CFR 268	Land Disposal Restrictions
40 CFR 270	EPA Administered Permit Programs: The Hazardous Waste Permit Program
40 CFR 273	Standards for Universal Waste Management
40 CFR 279	Standards for the Management of Used Oil
40 CFR 280	Technical Standards and Corrective Action Requirements
40 CFR 300	National Oil and Hazardous Substances Pollution Contingency Plan
40 CFR 302	Designation, Reportable Quantities, and Notification
40 CFR 355	Emergency Planning and Notification
40 CFR 370	Hazardous Chemical Reporting: Community Right-to-Know
40 CFR 372	Toxic Chemical Release Reporting: Community Right-to-Know
40 CFR 373	Reporting Hazardous Substance Activity When Selling or Transferring Federal Real Property
40 CFR 403	General Pretreatment Regulations for Existing and New Sources of Pollution
40 CFR 503	Standards for the Use or Disposal of Sewage Sludge
40 CFR 707	Chemical Imports and Exports
40 CFR 761	Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions
40 CFR 763	Asbestos
40 CFR 790	Procedures Governing Testing Consent Agreements and Test Rules
43 CFR 7	Protection of Archaeological Resources
43 CFR 10	Native American Graves Protection and Repatriation Regulations
43 CFR 11	Natural Resource Damage Assessments
49 CFR 100-199	U.S. Department of Transportation (DOT) Hazardous Materials Regulations
49 CFR 213	Track Safety Standards
49 CFR 214	Railroad Workplace Safety
49 CFR 216	Special Notice and Emergency Order Procedures: Railroad Track, Locomotive and Equipment
49 CFR 234	Grade Crossing Signal System Safety [Amended] (Implementation Assumption - 49 CFR 234 applies only to track on DOE property)
49 CFR 236 RULES	Standards, and Instructions Governing the Installation, Inspection, Maintenance, and Repair of Signal and Train Control Systems, Devices, and Appliances
49 CFR 325-399	DOT Federal Motor Carrier Safety Regulations

Table 2 – Source of Work Smart Standards

Federal Statutes & Regulations	
WSS Number	**WSS Title, Implementation Assumptions and Implementation Guidelines**
49 CFR 830	Notification and Reporting of Aircraft Accidents or Incidents and Overdue Aircraft, and Preservation of Aircraft Wreckage, Mail, Cargo, and Records
50 CFR 17	Endangered and Threatened Wildlife and Plants
50 CFR 222	Endangered Fish or Wildlife
42 USC 13101	Pollution Prevention Act, Et Seq
Public Law 91-596, Section 5(a)	Occupational Safety and Health (OSHA) General Duty Clause

Kentucky Statutes and Regulations	
WSS Number	**WSS Title, Implementation Assumptions and Implementation Guidelines**
106 KAR 1	Department of Military Affairs
301 KAR 4	Wildlife
302 KAR 31	Pesticides
401 KAR 4	Water Resources
401 KAR 5	Water Quality
401 KAR 6:310	Water Well Construction Practices and Standards
401 KAR 8	Potable Water System
401 KAR 30	General Administrative Procedures
401 KAR 31	Identification and Listing of Hazardous Waste
401 KAR 32	Standards Applicable to Generators of Hazardous Waste
401 KAR 33	Standards Applicable to Transporters of Hazardous Waste
401 KAR 34	Standards for Owners and Operators of Hazardous Waste Storage, Treatment and Disposal
401 KAR 35	Interim Status Standards for Owners and Operators of Hazardous Waste Storage, Treatment and Disposal
401 KAR 36	Standards for the Management of Specific Hazardous Waste and Specific Types of Materials
401 KAR 37	Land Disposal Restrictions
401 KAR 38	Hazardous Waste Permitting Process
401 KAR 40	Enforcement and Compliance Monitoring Hazardous Waste
401 KAR 42	Underground Storage Tanks
401 KAR 43	General Standards for Universal Waste
401 KAR 45	Special Waste
401 KAR 47	Solid Waste Facilities
401 KAR 48	Standards for Solid Waste Facilities
401 KAR 50	General Administrative Procedures
401 KAR 51	New Source Requirements; Non-Attainment Areas

Table 2 – Source of Work Smart Standards

Kentucky Statutes and Regulations	
WSS Number	**WSS Title, Implementation Assumptions and Implementation Guidelines**
401 KAR 53	Ambient Air Quality
401 KAR 57	Hazardous Pollutants
401 KAR 59	New Source Standards
401 KAR 60	New Source Performance Standards
401 KAR 61	Existing Source Standards
401 KAR 63	General Standards of Performance (Air)
401 KAR 65	Mobile Source-Related Emissions
805 KAR 4	Division of Explosives and Blasting
Kentucky Title XIX Chapter 235	Boating and Watercraft

Ohio Statutes and Regulations	
WSS Number	**WSS Title, Implementation Assumptions and Implementation Guidelines**
OAC 130-7-7-30	Explosives
OAC 149-1-02	Preservation of Historic Places
OAC 1301:7-9	Petroleum Underground Storage Tanks
OAC 1501:15-1	Excavation
OAC 1501:18-1	Endangered Species of Native Ohio Wild Plants
OAC 1501:31-23	Endangered Wild Animals
OAC 3701-34	Asbestos Hazard Abatement Contractors, Specialists, Other Professionals
OAC 3745-1	Water Quality Standards
OAC 3745-9	Water Well Standards
OAC 3745-15	General Provisions on Air Pollution Control
OAC 3745-19	Open Burning Standards
OAC 3745-20	Asbestos Handling--Demolition, Renovation, Disposal
OAC 3745-21	Emissions of Organic Compounds and Carbon Monoxide
OAC 3745-25	Emergency Episode Standards
OAC 3745-27	Solid Waste Disposal Regulations
OAC 3745-29	Solid Waste Management Districts: Plastic Bottle and Container Labeling
OAC 3745-31	Permit to Install New Sources of Pollution
OAC 3745-33	Ohio NPDES Permits
OAC 3745-34	Underground Injection Control Program
OAC 3745-35	Air Permits to Operate and Variances
OAC 3745-38	National Pollutant Discharge Elimination System Permits
OAC 3745-50	Hazardous Waste Rules--General Provisions
OAC 3745-51	Hazardous Wastes Subject to Regulations

Table 2 – Source of Work Smart Standards

Ohio Statutes and Regulations	
WSS Number	**WSS Title, Implementation Assumptions and Implementation Guidelines**
OAC 3745-52	Generators of Hazardous Wastes
OAC 3745-53	Transporters of Hazardous Wastes
OAC 3745-54	Standards for the Management of Hazardous Wastes
OAC 3745-55	Management of Hazardous Wastes: Closure and Post Closure
OAC 3745-58	Recyclable Materials Standards
OAC 3745-59	Hazardous Waste- Land Disposal - Prohibitions and Restrictions
OAC 3745-65	Interim Standards - General Provisions
OAC 3745-66	Closure and Post-Closure Requirements; Containers; Tanks
OAC 3745-78-03	Asbestos Notification, Removal and Cleanup Fee
OAC 3745-100	Toxic Chemical Release Reporting
OAC 3745-400	Construction and Demolition Debris Removal
OAC 3750-20	Emergency Planning
OAC 3750-25	Emergency Release Notification
OAC 3750-30	Hazardous Chemical Reporting
ORC 15:1547	Watercraft and Waterways
ORC 47:4731	Physicians, Limited Practitioners

Tennessee Statutes and Regulations	
WSS Number	**WSS Title, Implementation Assumptions and Implementation Guidelines**
TCA 50-3-203	Tennessee Safe Needles Act
TCA 55-8	Operation of Vehicles - Rules of the Road
TCA 68-105	Blasting Standards
TCA 68-140	Emergency Services, Part 5 Emergency Medical Services Act of 1983
TCA 69-10-201	Tennessee Boating Safety Act of 1965
TN 0080-6-16	Regulations Governing Use of Restricted Use Pesticides
TN 0400-6-2	Rare Plant Protection and Conservation Regulations
TN 1200-1	Division of Solid and Hazardous Waste Management
TN 1200-3	Division of Air Pollution Control
TN 1200-4	Division of Water Quality
TN 1200-5	Division of Water Supply
TWRA 94-16	Proclamation - Wildlife in Need of Management
TWRA 94-17	Proclamation - ENDANGERED OR THREATENED SPECIES
City of Oak Ridge Ordinance 9-91	Sewer Use

Table 2 – Source of Work Smart Standards

Consensus Standards	
WSS Number	**WSS Title, Implementation Assumptions and Implementation Guidelines**
ACGIH	American Conference of Governmental Industrial Hygienists - Threshold Limit Values (Most current version) (IA - Professional judgment of IH will be used to select the appropriate exposure standard, e.g. TLVs, AIHA WEELs and NIOSH RELs)
ANSI B30.10	Hooks
ANSI B30.11	Monorails & Underhung Cranes
ANSI B30.16	Overhead Hoists
ANSI B30.2	Over Head and Gantry Cranes
ANSI B30.20	Below The Hook Lifting Devices
ANSI B30.21	Manually-Operated Hoists
ANSI B30.5	Mobile and Locomotive Cranes
ANSI B56.6	Rough Terrain forklift Trucks
ANSI C2	National Electrical Safety Code (NESC)
ANSI N323-1978	Radiation Protection Instrumentation Test and Calibration
ANSI/ANS 8.22	IG - Nuclear Criticality Safety Based On Limiting and Controlling Moderators
ANSI/ANS 10.4	IG - Guidelines for the Verification and Validation of Science and Engineering Computer Programs for the Nuclear Industry
ANSI/ASHRAE 62	Ventilation, 1989 version (IA - Use of respiratory protection per 29 CFR 1910.134 is an acceptable alternative to ventilation) (IG – for General Office AHI)
ANSI/ASME A17.1	Safety Code for Elevators and Escalators
ANSI/ASME A17.2.1	Inspectors Manual for Electric Elevators
ANSI/ASME A17.2.2	Inspectors Manual for Hydraulic Elevators
ANSI/ASME A17.3	Existing Elevators and Escalators
ANSI/ASME A17.5	Elevator and Escalator Electrical Equipment
ANSI/ASME B31	National Boiler Inspection Code
ANSI/IES RP-1	IG – Practice for Office Lighting
ANSI Z49.1	Safety in Welding and Cutting
ANSI Z136.1	Safe Use of Lasers (1993 Version)
ANSI Z358.1	Emergency Eyewash and Shower Equipment
ANSI Z535.1	Safety Color Code (IA - Applicable only to ETTP TSCA Incinerator and Central Neutralization Facility)
ASME B&PV Code	Boiler and Pressure Vessel Code
ASTM F1236-89	IG – Visual Inspection of Electrical Protective Rubber Products
ATSSA	IG – ATSSA Manual on Uniform Traffic Control Devices
EPA Manual	IG – Building Air Quality

Table 2 – Source of Work Smart Standards

Consensus Standards	
WSS Number	**WSS Title, Implementation Assumptions and Implementation Guidelines**
IADC	IG – IADC Accident Prevention Manual for Drilling
NFPA 1	• Fire Prevention Code, with the following IAs: o Sections 1-3(4), 1-4.2, and 1-8 do not apply o The Governing Authority described in section 1-4.1, for the purposes of this requirement, is to be the BJC General Manager. This Governing Authority is to designate a qualified individual to serve as the AHJ for all facilities over which BJC, or its subcontractors, have responsibility. This appointment will be in writing. o Section 1-4.10 shall be amended to allow DOE to direct BJC to secure the scene of any accident or fire, and to turn the scene and all evidence over to an investigation team to be designated by DOE. o In this code, the term "public" is to mean all BJC employees, all BJC subcontractors, and all other co-located workers and visitors who are present at a facility for which BJC has responsibility. o In this code, the term "owner" is to mean the BJC facility manager. o In this code, the term "operator" is to mean the BJC building operator. o Where NFPA 25 and 72 are referenced, the inspection, test, and maintenance frequencies listed in those standards shall not apply, instead, the frequencies listed in the document titled, "Oak Ridge Operations Office Fire Prevention and Protection Implementation Guides" shall be used. o For fire hazards not addressed by WSS Fire AHIs, the AHJ will apply the applicable NFPA standard(s).
NFPA 10	Portable Fire Extinguishers
NFPA 37	Stationary Combustion Engines and Gas Turbines
NFPA 45	Standard On Fire Protection for Laboratories Using Chemicals (IA - for laboratories only)
NFPA 51B	Standard for Fire Protection in Use of Cutting and Welding Processes (IA - Fire Watchers are responsible for the safety of the worker(s) performing the hot work and the facility, including the requirement to maintain line-of-sight with the worker(s) during hot work operations.)
NFPA 55	Compressed and Liquefied Gases in Portable Cylinders
NFPA 70	National Electric Code
NFPA 70E	Electrical Safety Requirements for Employee Workplaces
NFPA 80A	Exterior Fire Exposures (IA - This standard will be used by qualified fire protection engineers to determine minimum spacing between structures to minimize the risk of exposure to fires for all new installations. The requirements of this standard will not be applied to existing (at time of adoption of these WSS) structures.)
NFPA 101	Life Safety Code
NFPA 101A	Alternative Approaches to Life Safety
NFPA 111	Stored Electrical Energy Emergency and Standby Power Systems
NFPA 299	Protection of Life and Property From Wildfire

Table 2 – Source of Work Smart Standards

Consensus Standards	
WSS Number	**WSS Title, Implementation Assumptions and Implementation Guidelines**
NFPA 495	Explosive Materials Code Chapter 1 Chapter 2, except section 2.3 and 2.5, modified as follows. (IA - Personnel who perform or supervise use of explosives will meet the qualifications and other requirements of sections 2-2, 2-4, 2-6, 2-7, and 2-8.) Chapter 6, except section 6-7, modified as follows. (IA - Reference Section 6-7.2; All magazines containing explosive materials shall be opened and inspected at maximum of 7 days.) Chapter 7, except sections 7-2 and 7-5.3, modified as follows. (IA - Reference Section 7-1.3.1; Loading and firing shall be performed or supervised only by a person possessing the qualifications found in sections 2-2, 2-4, 2-6, 2-7, and 2-8.) Chapter 8, except sections 8-1 and 8-2.
NFPA 505	Powered Industrial Trucks including Type Designations, Areas of Use, Maintenance and Operation
NFPA 780	Lightning Protection (IA - Applicable only to the TSCA Incinerator)
NFPA 801	Facilities Handling Radioactive Materials (IA – Section 4-1.1 – Where a fire hazard analysis is required, a graded approach shall be applied.)
NIOSH	IG – Occupational Health and Safety Guidance Manual for Hazardous Waste Site Activities (NIOSH) for Non-Permeable PPE
SFPC	Standard Fire Prevention Code (SFPC) (IA - Applicable only to the ETTP TSCA Incinerator).
USCG	IG – U.S. Coast Guard Chris Compatibility Chart

DOE Directives	
WSS Number	**WSS Title, Implementation Assumptions and Implementation Guidelines**
DOE O 151.1A	Comprehensive Emergency Management Plan
DOE O 210.1, Chg. 2	Performance Indicators and Analysis of Operations Information
DOE O 225.1A	Accident Investigations
DOE O 231.1, Chg. 2	Environment, Safety, and Health Reporting
DOE M 231.1-1	Environment, Safety, and Health Reporting, Ch. I, Section 1
DOE O 414.1A	Quality Assurance
DOE O 420.1A	Facility Safety
DOE O 425.1B	Startup and Restart of Nuclear Facilities
DOE O 433.1	Maintenance Management Program for DOE Nuclear Facilities
DOE M 435.1	Radioactive Waste Management IA - Wherever DOE O or M 435.1 refers to either being subject to or requiring compliance with either DOE O or M 435.1, this shall be read as subject to or requiring compliance with the Contract. IA - Wherever DOE M 435.1 requires submission to or obtaining approvals from DOE HQ elements, the Contractor shall satisfy this by submission of information or request to DOE ORO.

Table 2 – Source of Work Smart Standards

DOE Directives	
WSS Number	**WSS Title, Implementation Assumptions and Implementation Guidelines**
	DOE M 435.1, Chapter I, including only the following sections, as modified: I.1.C I.2.F.(2) (IA - A radioactive waste management basis will be developed, reviewed, approved, and maintained for each DOE radioactive waste management facility, operation, and activity. The radioactive waste management basis may be specified in multiple documents. for new facilities, operations, and activities, the basis will be approved before operations begin.) I.2.F.(4) I.2.F.(5) (IA - Section will be read as follows: (5) Environmental Restoration, Decommissioning, and Other Cleanup Waste. Ensuring the management and disposal of radioactive waste resulting from environmental restoration activities, including decommissioning, meet substantive requirements. Environmental restoration activities using the CERCLA process (in accordance with Executive Order 12580) may demonstrate compliance with substantive requirements (including the Performance Assessment and performance objectives, as well as the Composite Analysis) through the CERCLA process. Environmental restoration activities that will result in the off-site management and disposal of radioactive waste must meet the applicable contract requirements. Field Elements performing environmental restoration activities involving development and management of radioactive waste disposal facilities under the CERCLA process shall: (a) Submit certification to the Deputy Assistant Secretary for Environmental Restoration that compliance with the substantive contract requirements have been met through application of the CERCLA process; and (b) Submit the decision document, such as the Record of Decision, or any other document that serves as the authorization to dispose, to the Deputy Assistant Secretary for Environmental Restoration for approval.) I.2.F.(6) (IA - Contractor is responsible for developing only the technical aspects of waste acceptance requirements.) I.2.F.(7), (8), (11), (12), (13), (14), (15), (16), (17), (19), (20) I.2.G.(1) DOE M 435.1, Chapter III, except section III.C, III.F, and modified as follows: III.D. (IA - The RWMB will be tailored to each facility, and it will incorporate salient requirements from documents such as the following: radiation protection program, health and safety plans, SARs, TSRs, and procedures.) III.M.(1) and (2) (IA - Site evaluation and facility design of existing facilities shall meet the requirements of RCRA and safety basis documentation as amended by a facility-specific evaluation that considers and tailors the requirements of Chapter III.M.(2). IA - The parameters cited in III.M.(2) will be considered for facility requirements and general design criteria. IA - III.M.2.(d) Instrumentation and controls requirements are applicable only to liquid waste.) III.N.(1) (IA - Storage Prohibitions. Transuranic waste in storage shall not be readily capable of detonation, explosive decomposition, reaction at anticipated pressures and temperatures, or explosive reaction with water, except as authorized by the RWMB.) III.P (IA - Transuranic waste shall be disposed in accordance with the requirements of 40 CFR Part 191. *Environmental Radiation Protection Standards*

Table 2 – Source of Work Smart Standards

DOE Directives	
WSS Number	**WSS Title, Implementation Assumptions and Implementation Guidelines**
	for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes, except as allowed by the definition of transuranic waste.) III.Q. (IA - The parameters cited in III.Q.(1) will be considered for sampling or monitoring.) DOE M 435.1, Chapter IV, except section IV.C, IV.F, and modified as follows: IV.D. (IA - The RWMB will be tailored to each facility, and it will incorporate salient requirements from documents such as the following: radiation protection program, health and safety plans, SARs, TSRs, and procedures.) IV.M. (IA - The parameters cited in IV.M.(2) will be considered for facility requirements and general design criteria.) IV.N.(1) (IA - Storage Prohibitions. Low-level waste in storage shall not be readily capable of detonation, explosive decomposition, reaction at anticipated pressures and temperatures, or explosive reaction with water, except as authorized by the RWMB.) IV.N.(2) (IA - Consistent with provisions in item (2), the DOE ORO authorizes storage of legacy waste consistent with plans and budget for dispositioning the waste and authorizes the conditions for when waste can be stored longer than one year through the RWMB. Storage Integrity will be assured through a graded approach using a variety of storage facilities, including outside storage for legacy waste. In all cases, a combination of waste characteristics, container characteristics, storage environment, inspections, and monitoring will be taken into consideration and will be authorized through the RWMB.) IV.N.(7) (IA - The second sentence of item (7) shall be read as: Accumulation of LLW in work areas is to be minimized. LLW will be "processed out" of work areas where it is being accumulated within 120 days of final closure of the container. It is generally intended that final closure will be when the container is filled to capacity. "Process out" means transfer to proper treatment, disposal, or storage (based on characterization data).) IV.R. (IA - The parameters cited in IV.R.(1) will be considered for sampling or monitoring.)
DOE O 435.1	Radioactive Waste Management IA - Wherever DOE O or M 435.1 refers to either being subject to or requiring compliance with either DOE O or M 435.1, this shall be read as subject to or requiring compliance with the Contract. DOE O 435.1, CRD I.A and I.D IG - DOE G 435.1, Radioactive Waste Management
DOE O 440.1A	Worker Protection Management for DOE Federal and Contractor Employees
DOE P 441.1	Radiological Protection for DOE Activities
DOE P 450.2A	Identifying, Implementing, and Complying with Environment, Safety, and Health Requirement
DOE P 450.3	Authorizing Use of the Necessary and Sufficient Process for Standards-Based Environment, Safety, and Health Management
DOE P 450.4	Safety Management System Policy (IG – DOE P 450.4, Safety Management System Policy is subject to the following Implementation Guidance: The Contractor will use a tailored approach in the establishment of a configuration

Table 2 – Source of Work Smart Standards

DOE Directives	
WSS Number	**WSS Title, Implementation Assumptions and Implementation Guidelines**
	management system that considers DOE-STD-1073-93, Guide for Operational Configuration Management as an Implementation Guide.)
DOE P 450.5	Line Environment, Safety, and Health Oversight
DOE P 450.6	Secretarial Policy Statement on Environment, Safety, and Health
DOE O 460.1A	Packaging and Transportation Safety
DOE O 460.2, Chg 1	Departmental Materials Transportation and Packaging Management
DOE Order 5400.1, Chg. 1	General Environmental Protection Program
DOE Order 5400.5, Chg. 2	Radiation Protection of the Public and the Environment
DOE Order 5480.19	Conduct of Operations Requirements for DOE
DOE Order 5480.20A	Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities
DOE-STD-1088	IG – Fire Protection for Relocatable Structures
DOE-STD-1073-93	IG – Guide for Operational Configuration Management
DOE-STD-1090	IG – Hoisting and Rigging, Ch. 2 (for Critical Lifts Only) and Addendum 1 (Procurement Guidelines)
DOE-STD-1091-96	IG – Firearms Safety
DOE-STD-1120-98	Integration of Environment, Safety and Health into Facility Disposition Activities
DOE-STD-3007	IG - Guidelines for Preparing Criticality Safety Evaluations at Department of Energy Non-Reactor Nuclear Facilities

Other Implementation Assumptions	
Activity / Hazard / Issue	**Implementation Assumption**
Authorization agreements	For facilities designated in writing by the Department of Energy, Oak Ridge Operations (DOE-ORO), an Authorization Agreement (AA) will be prepared and submitted to ORO using their written expectations and requirements and maintained as a record document. The proposed AA will require an authorized contractor's signature prior to submittal. Periodic reviews (consistent with the review of Authorization Basis documents) will be conducted to determine if changes are necessary and these reviews will be reported to the Contracting Officer's Representative (COR) in writing. Work in the affected facilities may be performed outside the provisions of the AA only when imminent danger or an environmental emergency is present. If DOE notifies the contractor in writing of needed improvements, the contractor will resubmit the proposed AA within 45 days of receipt.

Table 2 – Source of Work Smart Standards

Other Implementation Assumptions	
Activity / Hazard / Issue	**Implementation Assumption**
Chemical detonation activities	IA - The Activity Hazard Assessment (AHA) for handling and transport of shock-sensitive waste will determine the personal protective equipment (PPE) and packaging requirements and will be based on chemical properties. IA - A transportation work package will specify the controls necessary to segregate facilities, vehicle traffic, and personnel from the shock- sensitive waste and will be based on overpressure calculations. Transport will only occur when inclement weather is not anticipated. IA - Equipment such as lifting devices, vehicles, etc. will be inspected daily while in use to prevent mechanical failure. IA - Shock-sensitive waste will be transported in an explosive carrier that is inspected and certified annually according to 49 CFR 396.17-23. IA - A walkthrough will be conducted prior to transport to ensure slip, trip, and fall hazards are controlled.
Facility Safety	For radiological facilities, hazards will be identified, categorized, and evaluated. Safety Requirements will be identified consistent with DOE P 450.4. Hazards and hazard controls will be described in documents such as: Health and Safety Plans, Auditable Safety Analyses, Process Hazard Analysis, Risk Management Plan, or Environmental Impact Statement. Safety requirements (controls) will be recorded in the appropriate safety documentation. For non-nuclear, non-radiological facilities safety analysis, safety requirements, and change control may be satisfied by the following: (1) complying with 29 CFR 1910.120 and 29 CFR 1926.65 requirements for Safety and Health Programs, Work Plans, Health and Safety Plans (HASPs) and Emergency Response Plans; (2) deriving safety requirements (controls); and (3) addressing public safety, as well as worker safety, in the Safety and Health Program, Work Plans, HASPs, and Emergency Response Plans. For activities subject to an authorization basis, configuration control will be maintained to ensure that activities remain within the approved authorization basis. If outside the authorization basis, the change shall be approved at a level consistent with the original authorization basis approval. DOE O 420.1A, *Facility Safety*, applies as a Work Smart Standard for Natural Phenomena Hazards.
Fire Safety	IA - Fire prevention or response elements may be modified, reduced, or eliminated when justified by an evaluation that demonstrates an equivalent level of protection or an acceptably low risk to personnel and the environment. Such modification, reduction or elimination of protection shall be approved by the DOE-ORO authority having jurisdiction (AHJ) for fire protection matter.
Fire rescue/response	IA - Fire prevention or response elements may be modified, reduced, or eliminated when justified by an evaluation that demonstrates an equivalent level of protection or an acceptably low risk to personnel and the environment. Such modification, reduction or elimination of protection shall be approved by the DOE-ORO authority having jurisdiction (AHJ) for fire protection matter.

Table 2 – Source of Work Smart Standards

Other Implementation Assumptions	
Activity / Hazard / Issue	**Implementation Assumption**
Microbes (water)	IA - Work planning will specify the appropriate controls.
Repetitive motion	IA - Work planning will specify the appropriate controls

Key Word Index

accident investigations 7
acids 21
aerosol 12
air emissions 29
air pollutant 29
airborne 15
aircraft 26, 53
airspace 26, 51
ammunition 26
animals 17, 43, 55
archaeological 44, 45, 51, 53
artifacts 45
asbestos 18, 43, 53, 55, 56
asphyxiating gases 18
assessment 46, 49
authorization basis 5, 6, 62, 63
aviation 26
batteries 13, 39
battery 9
beryllium 21, 51
bicycles 20, 25
bird droppings 17
blasting 21, 55, 56
bloodborne 18
boating 25, 55, 56
boiler 24, 57
brazing 13
carcinogens 21
carts 20, 25
categorization 6
CERCLA 30, 46, 59
chemical 21, 30, 31, 41, 52, 53, 56, 63
chemical detonation 21, 63
combustion 9
compressed gas 11, 16
conduct of operations 6
configuration 6, 15, 63
configuration management 5, 61
confined spaces 19
consensus standards 4, 5
construction safety 7
contamination 15
conveyer 16
counterfeit 7
cranes 16, 57
criticality 10, 15, 57, 62
cryogens 18
cutting 13, 15, 19, 23, 24
decommissioning 46, 59
demolition 20, 40, 43, 45, 55, 56
DOT 17, 21, 53
dredged 34
drinking water 42, 52
drowning 26
dry environment 19
egress 26
electrical 9, 13, 14, 16, 57, 58
elevated 19
elevators 16, 57
emergency 3, 6, 10, 19, 21, 25, 31, 32, 33, 34, 41, 53, 55, 56, 57, 63
emergency management 6, 59
emissions 23, 29, 30
endangered 43, 44, 54, 55
equipment 5, 9, 12, 15, 16, 18, 20, 21, 24, 25, 26, 63
excavation 20, 32, 45, 55
explosive 21, 55, 59
eye 19
facility safety 6, 69
farmland 45
fire 9, 10, 13, 21, 58, 59, 63
fire extinguishers 12
firearms 26
fissile 15
flammable materials 11
flight 26, 51
floodplain 33, 34, 51
food preparation 20
forklift 16, 57
fumes 17, 23
general duty clause 27, 54
graves 45, 53
grinding 19, 24
groundwater 35, 45
hand tools 25
hazardous chemicals 31
hazardous materials 19
hazardous substances 31
hazardous waste generation 36
hazardous wastes 35, 36, 37, 38, 39, 40, 53, 55, 56
heavy metals 22
herbicides 23, 31, 32
high noise 19
historic 44, 45, 51, 55
historical 44

hoists 4, 16, 57
hooks 16, 57
hot/cold work 18
housekeeping 26
human remains 45
illumination 27
imminent dangers 27
implementation guidance 3
indoor air 17
industrial hygiene 7
infectious waste 35
injection 42, 52, 55
injury and illness reporting 27
integrated safety management 5
intense light 15
laser 14
lifting 16, 19, 57
lightning 11, 59
LLW 46, 59, 70
low-level waste 46, 59
machinery 24
maintenance 4, 7, 10, 25, 34, 53, 57, 71
medical 5, 15
microbes 17, 63
microwave 14
mildew 17
mobile equipment 12, 24
modifications 4, 11
mold 17
motor vehicle 30
National Emission Standards For Hazardous Air Pollutants 29, 43, 52
natural phenomena hazards 6
natural resources 31, 34
navigable 34
needles 18, 56
NESHAP 29
non-nuclear 5, 6, 63
non-point source discharges 32
NPDES 32, 33, 55
nuisance dusts 23
occupational injuries 27, 51
Occupational Safety & Health 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 51
office 26
oil 31, 32, 34, 40, 45, 52, 53
open burning 29, 55
open flame 12
organic compounds 30, 55
OSHA 19, 27, 54
ozone 30, 52
pathogens 18
PCBs 39, 40, 41, 53
penetration 20
performance indicators 7, 59
permitted hazardous waste 37
pesticides 23, 31, 39, 52, 54, 56
petroleum 41, 55
physicians 10, 56
platforms 16, 25
point source discharges 32
poisonous plants 17
pollution 29, 30, 31, 32, 43, 45, 49, 52, 53, 54, 55, 56
polychlorinated biphenyls 39, 40, 41, 53
potable water 42, 54
power distribution system 13
pressure systems 24
quality assurance 15, 51
radiation 15, 51, 59, 62
radio frequency 14
radioactive 15, 17, 45, 46, 59, 61
radioactive contamination 46
radioactive material 17, 45
radiological 4, 5, 6, 15, 51, 63, 71, 72
railroad 25, 53
RCRA 46, 59
real property 31
repetitive motion 20, 63
reportable quantities 30, 33, 41, 52, 53
reproductive 24
respiratory protection 57
restricted use pesticides 31, 32
reuse of materials 39
rigging 16
rotating 24
RWMB 46, 59
safety analyses 6
safety and health regulations 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 51
safety bases 6
safety color code 57
safety color coding 26
safety management 1, 9
safety management system 5, 61
sanitation 27
sewage 33, 53
sewer 33, 45, 56
sharp edges 20
sludge 33
smoke 23
solid waste 35, 52

solvents 21
spark 12
spontaneous 12
static electricity 14
stored energy 13
substations 14
surfaces 19, 20
system engineer 8
technical safety requirements 6
temporary lighting 13
temporary structures 12
test rule chemicals 41
thermostats 39
threshold quantity 30
torch 13, 15
toxic 16, 21, 33
toxic chemicals 31
toxic materials 16
toxicity 23
traffic 20
training 6, 62, 72
transformers 14
transportation 15, 17, 20, 21, 37, 53, 63
transuranic 46, 59
TRU 46, 70
ultraviolet 14
underground storage 41, 54, 55
unreviewed safety question 6
vehicles 21, 25, 63
ventilation 17, 19, 23, 24, 26, 57
vibrating 20
waste generation 35
waste management 38, 46, 59
water quality 32, 33, 34, 41, 45, 54, 55, 56
watercraft 25, 55, 56
waterways 25, 56
weather 27
welding 13, 14, 23, 57, 58
wetlands 33, 34, 51
wildfire 10, 58
wildlife 26, 43, 44, 54, 56
worker protection 7

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Revision Log

Requests for changes to the Work Smart Standards (WSS) have come from a variety of sources. Outlined in bold below on the Revision Log is a summary of the sources of the original requests for review of the standards relative to work scope or associated hazards. The revisions were initiated by changes in rules, laws, or DOE Orders, by internal BJC requests, and by requests from other DOE prime contractors relative to interface issues. All these routes (and others) for surfacing standards issues are covered in BJC procedure BJC-PQ-1150.

Identification Team Reports/Revision Packages for each individual WSS revision are available upon request to P/QA.

Original WSS ..... July 18, 1997

Rev. 1 ..... March 1998

Request for review of hazard-to-standard sufficiency, specifically in the area of criticality safety, was initiated by LMES Engineering.

Type 2 WSS change. General reorganization of material to segregate WSS contractual commitments from WSS revision process. Added Part 1, Sections 2 and 3 to clarify the nature of Implementation Assumptions and Implementation Guidance. Revised former Sect. 2 to bring all EMEF activities not covered by Phase 1 WSS under the Phase 2 WSS set. Specifically, this brings EM-30 funded activities at ORNL and HEU activities at Portsmouth under the Phase 2 WSS. See Part 1, Section 1. Added Implementation Assumptions and Implementation Guidance derived from DOE Order 420.1, Sect. 4.3 and DOE ORIG 5480.24 to clarify application of ANSI Criticality Safety Standards. Added ANSI/ANS-8.21, Use of Fixed Neutron Absorbers in Nuclear Facilities Outside Reactors as a Work Smart Standard. Added Implementation Assumption to DOE P 450.4, Safety Management System Policy, to further specify facility safety requirements and to incorporate previously applicable DOE HQ guidance. This guidance was provided by the letter dated June 9, 1997 from Richard E. Black, Director, Office of Nuclear Safety to John Psaras, EM-4 regarding Hazard Categorization for Environmental Management Activities Related to Stabilization, Deactivation, Decontamination and Decommissioning, and Environmental Restoration. Added Part 2, Section 8 to provide for the application of alternate sets of DOE-approved ES&H standards to EMEF work.

Rev. 2 ..... September 1998

Request to address hazards and associated standards associated with Railroad Systems was initiated by BJC Field Services.

Type 2 WSS change. Added the activity/hazard/ issue of Railroad Systems at the Oak Ridge Reservation and the associated standards. This change is reflected in the hazard-standard crosswalk (mechanical safety area of Part 1, Table 1) and the source listing of standards (Part 3)

Rev. 3 ..... February 10, 1999

Request to clarify standards associated with aspects of fissile materials was initiated by LMER/ORNL.

Type 2 WSS change. Revised standards for Fire rescue/response and Fissile material to add guidelines for fire fighting in areas that contain fissile materials. Revised standards for Fissile material to: (1) Clarify the ANSI/ANS 8.1 definition of the term "bias," (2) Clarify the ANSI/ANS 8.3 requirements for double contingency and geometry control, (3) Add requirements for detection of inadvertent accumulations of fissionable material, and (4) Adopt Implementation Guidance provided by ANSI/ANS 8.5, 8.10, 8.21, 8.22, 10.4, and DOE-STD-3007.

Rev. 4 ..... April 19, 2000

Effort to consolidate 6 sets of WSS into 3 sets was initiated by BJC Standards Management. Remainder of changes made in this revision were related to the revision of the 10CFR835 Rule.

Type 2 WSS change. Renamed the EMEF Phase 2 set of Work Smart Standards as the EMEF Operations Work Smart Standards. Consolidated the ETTP Surveillance and Maintenance Program, ETTP TSCA Incinerator, and ETTP Transportable Vitrification System Phase 1 Work Smart Standards into the EMEF Operations Work Smart Standards. This consolidation required that the Standard Fire Prevention Code for TN, ANSI Z535.1, and NFPA 780 be added to the EMEF Operations Work Smart Standards for ETTP TSCAI operations. ANSI Z535.1 was also added for ETTP CNF operations. Revised the Integrated Safety Management Associated Contractual Requirement to clarify the language regarding the acceptability of current BIOs and their operational controls. Added a requirement for fire watches to monitor the worker as well as the facility. Deleted requirements from DOE N 441.1, since these requirements are now included in 10 CFR 835. Added a new Implementation Assumption to the indoor air hazard to allow for the alternate use of respiratory protection. Revision 4 was approved April 19, 2000 and became effective June 30, 2000 with the issuance of Requirements Change Notice 8.

Rev. 5 ..... April 26, 2000

Revision was initiated due to new DOE Order 435.1 on Radioactive Waste Management.

Type 2 WSS change. A new Activity/Hazard/Issue (A/H/I) was added for LLW and TRU Radioactive Waste Management. Requirements, Implementation Assumptions, and Implementation Guidance statements were added to the WSS for this new A/H/I. The new requirements and guidance statements are derived from DOE O 435.1, DOE M 435.1, and DOE G 435.1, Radioactive Waste Management. Revision 5 was approved April 26, 2000 and became effective June 30, 2000 with the issuance of Requirements Change Notice 8.

Rev. 6 ..... March 7, 2000

Revision was initiated based on expanded application of QA Rule.

Type 1 WSS change. The applicability of 10 CFR 830.120 was expanded to include all activities with the potential for radiological harm. Previously, the WSS did not apply the QA Rule to activities classified as less than Nuclear Category 3. Revision 6 was effective March 7, 2000.

Rev. 7 ..... May 23, 2000

Revision was initiated based on concerns raised by DOE ORO.

Type 1 WSS change. More detailed readiness review requirements are added to the Associated Contractual Requirements section of the WSS. The readiness review requirements are based on DOE O 425.1A, DOE-STD-3006-95, and ORO Order 420 Chapter IX. Revision 7 was effective May 23, 2000.

Rev. 8 ..... April 27, 2000

Revision was initiated in 3 areas for the following reasons: concerns raised by DOE ORO, changes in the TN laws on sharps and needles, and new Be Rule 10CFR850.

Type 1 WSS change. The topic of Occupational Medicine Program, including requirements derived from DOE O 440.1, CRD, Paragraph 19, was added to the Associated Contractual Requirements section of the WSS reference to the Occupational Medicine Program was removed from the ISMS Implementation Guidance table. Reference to TCA Section 50-3-203 was added to the A/H/I for bloodborne pathogens. Reference to DOE Rule 10 CFR 850 was added to the A/H/I for beryllium. Revision 8 was effective April 27, 2000.

Rev.9 ..... May 19, 2000

Request to address hazard-to-standard sufficiency associated with chemical detonation was initiated by BJC Standards Management in conjunction with the Project Manager.

Type 2 WSS change. Requirements based on NFPA 495 were added to the WSS to address a new A/H/I for chemical detonation activities. Revision 9 was approved May 19, 2000 and was effective with the issuance of Requirement Change Notice (RCN) 8 on June 30, 2000.

Rev.10 ..... August 23, 2000

Request to address the development, maintenance, and implementation of authorization agreements was initiated by BJC Standards Management in order to reflect the expectations provided by the October 29, 1999 memorandum from G. Leah Dever to the ORO Assistant Managers, titled, "Authorization Agreements."

Type 1 WSS change. Requirements for the development, maintenance, and implementation of authorization agreements are added to the Associated Contractual Requirements section of the WSS. The

authorization agreement requirements are based on DOE O 420, Chapter XI. Revision 10 was effective August 23, 2000.

Rev.11 ..... September 8, 2000

Change to provide additional requirements for discipline and rigor was initiated by Performance/Quality Assurance to address concerns over work performance.

Type 2 WSS change. Compliance with DOE Order 5480.19, Conduct of Operations Requirements for DOE Facilities, is a requirement, an implementation assumption was added as a new Associated Contractual Requirement. Additional discipline and rigor controls are to apply to projects, facilities, and activities characterized as nuclear hazard category II, moderate chemical industrial hazard, or high chemical/industrial hazard. Revision 11 was approved September 8, 2000 and was effective with the issuance of RCN 10 on December 29, 2000.

Rev.12 ..... April 11, 2001

Change to provide additional requirements for criticality safety engineer training was initiated as a result of BJC contract impact assessment review of DOE O 420.1 Change 3, Facility Safety.

Type 1 WSS change. An implementation assumption was added to ANSI/ANS - 8.19 under the Fissile material AHI. Training and qualification of NCS engineers shall be implemented using a graded approach considering DOE-STD-1135-99. Revision 12 was approved April 11, 2001 and was effective with the issuance of RCN 12 on June 29, 2001.

Rev.13 ..... June 15, 2001

Change to update environmental radiological program requirements was initiated as a result of DOE-HQ-EH assessments that recommended the inclusion of DOE 5400.1 and DOE 5400.5 requirements.

Type 2 WSS change. Hazards and issues associated with the environmental radiological program have been updated to reference DOE 5400.1 and DOE 5400.5 standards. Scope of the WSS sets has been clarified in Section 1.2. Revision 13 was approved by DOE-ORO on June 15, 2001 and was effective with the issuance of RCN 14 on December 31, 2001.

Rev.14 ..... February 28, 2002

Change to include 4 directives of interest to the Defense Nuclear Facilities Safety Board.

Type 1 WSS change. DOE-STD-1120-98, *Integration of Environment, Safety and Health into Facility Disposition Activities*, DOE O 420.1, *Facility Safety*, Section 4.2, DOE 5480.19, *Conduct of Operations at DOE Facilities*, and DOE 5480.20A, *Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities,* were included as work smart standards. Implementation Assumptions for discipline and rigor controls and implementation guidance for training and qualifications were removed. Revision 14 was approved February 28, 2002 and was effective with the issuance of RCN 15 on March 25, 2002.

Rev.15 ..... April 9, 2002

Change to include Orders of Interest to the Defense Nuclear Facilities Safety Board and requirements from Nuclear Safety Management Rule, 10 CFR 830, Subpart B.

Note that the WSS changes contained in this revision were approved in accordance with the following correspondence:

- Type 1 WSS Change - Reference letter number PQA-02-043, March 27, 2002, Paul F. Clay, Bechtel Jacobs Company Vice President and General Manager, to Lori L. Fritz, Department of Energy Contracting Officer's Representative

- Type 2 WSS Change - Reference letter number PQA-02-046, March 27, 2002, Paul F. Clay, Bechtel Jacobs Company Vice President and General Manager, to Lori L. Fritz, Department of Energy Contracting Officer's Representative – DOE-ORO approval dated April 4, 2002 and provided by COR signature on BJC transmittal letter.

- Type 2 WSS Change - Reference letter number PQA-02-042, March 27, 2002, Paul F. Clay, Bechtel Jacobs Company Vice President and General Manager, to Lori L. Fritz, Department of Energy Contracting Officer's Representative – DOE-ORO approval dated April 8, 2002 and provided by COR signature on BJC transmittal letter.

- Type 1 WSS Change - Reference letter number PQA-02-049, April 9, 2002, Paul F. Clay, Bechtel Jacobs Company Vice President and General Manager, to Lori L. Fritz, Department of Energy Contracting Officer's Representative

These changes were effective with the issuance of RCN 16 on May 2, 2002.

Rev.16 ..... December 23, 2002

Change to the WSS set in order to incorporate standards related to systems engineering program from DOE 420.1A, Section 4.5. This change was initiated as result of BJC review and evaluation of emergent DOE directives.

Type 2 WSS change. The topic of System Engineers, including requirements derived from DOE O 420.1A, Facility Safety, was added to the Associated Contractual Requirements section of the WSS. Revision 16 was approved by DOE-ORO on November 18, 2002 and will be effective when incorporated into a prime contract RCN.

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Hanson, Nancy J. (3NH)

From: Newman, Debora H. (NE4)
Sent: Monday, December 23, 2002 10:57 AM
To: Hanson, Nancy J. (3NH)
Subject: FW: DOE-02-1065

-----Original Message-----
From: McCarty, Carol N. (Y2C)
Sent: Monday, December 23, 2002 10:17 AM
To: Newman, Debora H. (NE4)
Cc: 'tsfloyd@comcast.net'; Bradley, Keith A. (KZ5); Daugherty, Cynthia E. (CED)
Subject: DOE-02-1065

The attached information is being sent to the EMEF DMC as a record copy. If you have questions or need further information, please contact Tim Floyd at 574-5984.

Thank you,

Carol

PQA-02-113.pdf BJC-OR-64 R16.pdf PQA-02-114.pdf BJC-OR-957-R4.pdf