| DOCUMENT TITLE: Headquarters Safety, Health, Procedures | and Environmental DOCUMENT NUMBER: 2010-003 |
|---|--|
| SUBJECT: Headquarters Facilities Work Planning and Control Program | ORGANIZATION: Office of Administration, Office of Logistics and Facility Operations |
| Subject Matter Expert: Michael Shincovich | Effective Date: |

A. PURPOSE:

The purpose of this program is to establish requirements at the Department of Energy (DOE) Headquarters facilities so that all work activity at DOE Headquarters facilities is properly planned, categorized, and controlled and are commensurate to the identified environment, safety, and health hazards; job complexities; and job coordination level.

These practices and procedures establish work control processes based on the Integrated Safety Management core functions to define the scope of work, identify the hazards, develop controls, work within the controls, and provide feedback for continuous improvement. These practices also incorporate the hazard control methods based on the following hierarchy: 1) elimination or substitution of hazards; 2) engineering controls; 3) administrative controls and work practices; and then 4) personal protective equipment.

B. SCOPE:

The Work Planning and Control (WPC) program requires that authorization be secured before the commencement of any work activity by Federal or contractor staff that involves the operation, maintenance, modifications, construction, demolition, grounds maintenance or decommissioning of facilities, systems, or building service equipment, including the installation or removal of cabling.

This procedure applies to DOE and National Nuclear Security Administration (NNSA) Federal and/or contractor employees performing work in the DOE Forrestal and Germantown facilities. It does not apply to leased facilities where work activities are covered by a lease agreement. WPC emphasizes using a graded approach to work activities and the approvals that are commensurate with the level of hazards to personnel, environment, and equipment, the level of complexity, and the degree of coordination necessary. How work is planned, authorized, and released depends on the type of work. Work is categorized by complexity into three types: worker-planned work, prescribed work, and permit-type work.

Worker-planned Work: This approach is used primarily for work that is low hazard, low complexity, and requires little or no coordination. This approach requires that the workers be knowledgeable and skilled in how to perform the work such as journeyman electricians or plumbers; be familiar with the hazards and their mitigation; and be familiar with the facility and the facility hazards. This work is coordinated between the workers and their supervisor and does not require the approval of the Building Manager. Contractors performing Worker-planned Work are still required to have an approved Worker Safety and Health Plan on file in the Headquarters

Safety and Health Office and the Worker Safety and Health Plan must address the types of hazards the workers may encounter.

Prescribed Work: This approach is used primarily for work that is routine or standardized and has moderate to low hazards, limited complexity, and minor coordination. This approach requires a formal, pre-authorized set of instructions or guidelines (e.g., standard operating procedure, contractor health and safety plan, contractor procedures, operating/maintenance manuals) for how to perform the work. The goal of prescribing the way the work will be performed is to control the work in such a way that the levels of hazard, complexity, and coordination are kept low. This work requires the approval of the Building Manager, but may be approved for periods up to a year as long as sufficient plans, checklists, and coordination are maintained.

Permit-planned Work. The WPC process for permit-planned work provides the means by which the Office of Administration staff will be made aware of all the work being performed by non-MA contractors, and provides a structure to identify and control moderate- and high-hazard work activity at Headquarters.

The description of this program addresses Prescribed Work and Permit-planned Work.

C. AUTHORITY:

These procedures are issued in accordance with 10 CFR 851, 29 CFR 1960.8(c) and the Delegation of Authority Agreement between GSA and DOE for the operation and maintenance of the Forrestal and Germantown facilities.

D. REGULATIONS/REFERENCES:

Regulations/references pertaining to the Headquarters Work Planning and Control Program include:

- 1. 10 CFR 851 DOE Worker Safety and Health Program
- 2. 29 CFR 1910 Occupational Safety and Health Administration (OSHA) General Industry Standards
- 3. 29 CFR 1960 OSHA Basic Program Elements for Federal Agencies
- 4. DOE P 450.7 DOE Environment, Safety, and Health Goals
- 5. DOE O 414.1C DOE Quality Assurance
- 6. DOE HO O 442.1 DOE Headquarters Occupational Safety and Health Program
- 7. NFPA 70E National Electrical Code
- 8. American Conference of Governmental Industrial Hygienists Threshold Limit Values for Exposures to Hazardous Materials

E. DEFINITIONS:

See Appendix A for definitions.

F. RESPONSIBILITIES:

- 1. The Office of Administration: The Office of Administration must ensure that an occupational safety and health program is established for headquarters operations and is consistent with DOE P 450.7.
- 2. The Building Manager: The Building Manager of each building has the responsibility and authority to review and approve work performed in his/her respective building.
- 3. Program Offices: Program Offices are responsible for ensuring that Federal and contract employees follow the WPC program for the type of work activity that is described herein. Program Office staff are also responsible for ensuring that the statement of work includes the requirement to follow the WPC program in contract documents.

G. PROCEDURES:

The following Headquarters Facilities WPC procedures must be followed when moderate to high hazard or complexity work is to be performed in a Headquarters building and, in accordance with Appendix B, which includes a flow chart outlining these procedures. The work practice resulting from these procedures is that a work permit is utilized to plan, implement, control, and document facilities type work and processes. This WPC procedure is also to be used for Prescribed Work where the duration of the work may be approved for up to one year from the date of approval. For Prescribed Work, the same procedures apply: the work must be defined, the hazards identified and addressed, the necessary approvals obtained, the work performed in a safe manner, and feedback obtained from the workers. Prescribed work is used for routine procedures that do not vary in scope, hazard, or complexity.

The WPC process for permit-planned work provides the means by which the Office of Administration staff will be made aware of all the work being performed and provides a structure to identify and control low, moderate, and high hazard work at Headquarters.

A completed Work Permit Form, found in Appendix D, is the process by which all Headquarters elements will apply for a work permit for all moderate to high hazard and complexity work to be performed. The Work Permit Form was designed around the five core principles of integrated safety management and requires that the hazards associated with the work-to-be performed are identified and control plans are put in place to mitigate hazards. The work permit process also provides a mechanism for personnel performing the work to provide feedback on the work planning and control process used. In addition to the work permit, additional safety permits, work instructions, and drawings may be required to be attached to the work permit, as needed. Additional permits are required for confined space entry, asbestos removal, hot work (including welding, cutting, and torching), and use of radioactive materials.

Work permits are not required when stabilizing emergency situations, but would be required to continue work after the emergency situation is stabilized.

Step 1: Define the Work

The Work Requestor provides a complete, accurate, and detailed description of the work or service to be performed. The following information must be included with the description of work:

- a. Who is performing the work (company and/or personnel)?
- b. What is the scope of work to be performed?
- c. When is the work to be completed?
- d. Where is the work to be performed (specific location(s))?
- e. Why is the work needed?
- f. What are the time/coordination constraints?
- g. Are there any special considerations, activities, coordination, concerns, such as special instructions, known area hazards, required training, and access requirements? (See Appendix E for additional information on special considerations.)

Step 2: Verify that the Contractor has an Approved Worker Safety and Health Plan

Before any work can be performed on-site at a DOE Headquarters building, the Work Requestor must ensure that the contractor to perform the work has submitted and received approval on a Worker Safety and Health Plan as required under 10 CFR 851. The Cognizant Program Contracting Officer Representative (COR) (and/or the 10 CFR 851 designee) must review and approve the Worker Safety and Health Plans submitted by the Contractor that is to perform the work. Upon review and approval by the Program Office, a copy must be submitted to the Headquarters Safety and Health Office (Forrestal room GE-112) for approval. Since the Worker Safety and Health Plan is a general safety and health plan required under 10 CFR 851, it may or may not address the specific hazards associated with the work. Ideally, the plan will address the anticipated hazards and can be referenced in the appropriate sections of the Work Control Permit.

Step 3: Determine the Hazard, Complexity, and Coordination Level

The Work Requestor is to use the "Screening and Work Control Determination" form, located in Appendix C, to identify and determine the environmental, safety, and health hazards, the complexity of the job, and the coordination level required. Based on the screening and work control determination, the work is classified as low, moderate, or high risk. The Work Requestor must attach the "Screening and Work Control Determination" form to the work permit form, unless the document contains classified information. *Note: The Work Requestor must ensure that the Contractor's plan sufficiently addresses hazards, complexity, and coordination commensurate with the work to be performed.*

Step 4: Address the Hazards

<u>Develop Work Plan and List Planned Work Controls on Work Permit</u> – As part of the permit process, the Work Requestor must develop a work plan which addresses the following (if applicable):

- a. A detailed description of the work to be performed.
- b. A statement on the preparatory actions to be performed before work can be started, any administrative and physical requirements, and precautions that should be observed during performance of work.
- c. Any directions or instructions that define how the work will be performed and who is responsible for doing each task.
- d. A statement addressing each of the potential hazards, the proposed controls, and mitigation strategies to be implemented, along with any work limits/constraints imposed.
- e. A statement identifying whether industrial hygiene or other environmental monitoring is required.
- f. A statement concerning whether post-work testing is required to ensure proper completion of work and/or system readiness to return to service.

Step 5: Complete the Work Permit Form

The Work Requestor generating the work permit completes the Work Permit Form through part K "Plan Walk-down/Meeting". Specify whether the work is permit-planned work or prescribed work.

Step 6: Coordinate the Work

- a. Obtain the necessary approvals The Work Permit must be signed in the authorization section by the Work Requestor, Job Supervisor, Program Office COR, Building Manager, and the Headquarters Safety and Health Office (MA-41) prior to the start of work.
- b. Pre-Work, Walk Down Team Meeting The Work Requestor must set up a meeting to walk-through the work site with the Building Manager, the Headquarters Safety and Health Office (MA-41), and any other parties affected by the work. For Prescribed Work, the walk-through involves the Requestor, the Building Manager, the Headquarters Safety and Health Office, and any other key parties. The walk-down team does the following:
 - 1) Visits the job site; reviews the project impact to the safety envelope of the facility.
 - 2) Ensures environmental, safety, and health issues and work controls on the permit are adequate for mitigating identified hazards, and that hazard controls are based on the following hierarchy: elimination or substitution of hazards; engineering controls; administrative controls and work practices; and/or personal protective equipment.
 - 3) Agrees on the final environmental, safety, and health risk, complexity and work coordination levels (low, moderate, or high) for the proposed work.
 - 4) Determines any post-job verification or activities.

Step 7: Conduct Pre-Work Briefing of Work to be performed

The Work Requestor or Job Supervisor conducts a pre-job briefing with the contractor personnel performing the work to review job hazards, permits, and/or work coordination requirements. After the pre-job briefing is completed, the job site supervisor, the contractor supervisor (as

appropriate) and contractor personnel performing the work will sign the work permit or attach a sign-off list, indicating that they read and understood the hazards, controls, and work permit requirements before they start working. The workers must sign for themselves; it is not permissible for the Job Site supervisor to sign for the contractor personnel performing the work. If any new contractor personnel are assigned to perform the work, they, too, are required to receive the pre-work briefing and sign the permit. Briefings are to be repeated weekly for recurring or long-duration jobs.

Step 8: Perform the Work

The Work Requestor authorizes work to be performed within the established controls. The work authorization (e.g. work permit, permits, procedures, and/or work instructions) must be kept at the job site for the duration of the job, unless the document must be protected as classified information.

- a. The Work Requestor or job supervisor shall ensure that all work is conducted according to the approved work plans, work instructions, and/or permits. The contractor personnel performing the work must work within the limits of the guidelines provided in the work permit.
- b. All jobs are to be stopped if new hazards arise or are identified; working conditions change; the work plan changes; an accident occurs; or, someone is performing work unsafely or contrary to the work permit. If the work is stopped, the work area is secured and tagged/labeled so as not to present a hazard to others. Contractor personnel have the authority to stop work if they believe that the work presents a hazard to themselves or others. If work is stopped, the job supervisor, the Program Office COR, the Building Manager, and the Work Requestor shall be notified. In addition, the Headquarters Safety and Health Office (MA-41) shall also be notified. A new work permit must be completed and approved following any stop work order in order to allow the work to restart.

Step 9: Conduct Post-Work Close-out / Obtain Feedback.

At the completion of work to be performed, the Work Requestor is to solicit feedback from the contractor personnel performing the work on the procedures used. The Work Requestor shall verify that:

- a. The work site is left in a clean and safe condition.
- b. The work is complete.
- c. The work quality meets the specifications established in the work authorization documents.
- d. All abandoned cabling of any kind is removed.
- e. All cabling at signal level voltage, including all fiber optical cable, is segregated from all power cables such that they are not installed in the same raceway or manhole.
- f. All administrative and operational closeouts are performed (i.e., equipment histories updated, configuration/drawing/changes given to the building manager, as specified in the work permit).

The Work Requestor reviews the close-out section of the work permit for completeness and signs the closeout section of the work permit. The Work Requestor gives the completed work permit to the Building Manager within ten days of project completion. The completed work permit should not be given to the Building Manager if the document must be protected as classified information; however, relevant feedback is to be provided. The Work Requestor shall ensure that the results from any sampling, information on safety, health, or environmental concerns, and other relevant feedback gets back to the Headquarters Safety and Health Office (MA-41).

Approved:

Date: 10/19/2010

Cherylynne K. Williams

Director

Office of Headquarters Safety, Health, and Security

ret. Williams

Brian D. Costlow

Director

Office of Administration

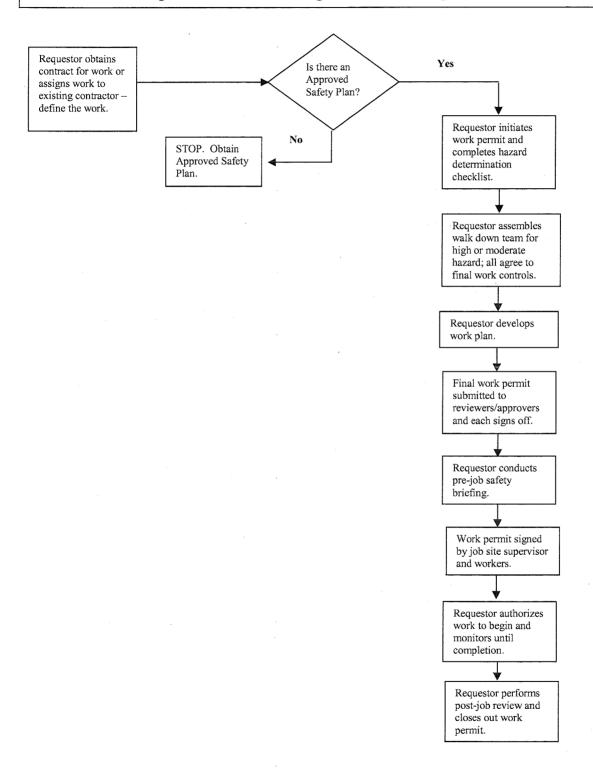
Designated Headquarters Safety and Health Official

Definitions

| Industrial hygiene hold points | Points in the work process where an industrial hygienist is needed to review or monitor the work to ensure that individuals are not exposed to chemicals or physical hazards above a limit set by Occupational Safety and Health Administration (OSHA), DOE, or the American Conference of Government Industrial Hygienists (ACGIH). |
|--|---|
| Hazard | A known source of danger where failure to identify it and take steps to correct or mitigate the risks may lead to injury or illness to staff, the public, or to the environment (e.g., operation, radiation, chemical, high pressure, electrical, mechanical, etc.). |
| Prescribed work | Use of work documents that are a formal set of instructions or guidelines (e.g., standard operating procedures (SOP), health and safety plan, operation/maintenance manual), which identifies the hazards and complexity of the work and prescribes the coordination necessary and the way work will be performed to control or mitigate the risks. These plans have all the necessary pre-approvals consistent with the level of hazard. |
| Requestor | A DOE employee or contractor who is authorized through their chain of command to implement work as defined in this document. |
| Safety envelope | The conditions/boundaries by which safe operation is maintained within a process or facility. |
| Serious or life threatening injury | A bodily injury that involves loss of life, loss of consciousness, extreme physical pain, disfigurement, protracted loss of the function of a bodily member or organ, or loss of mental faculty. |
| Substitution of hazards | Substitution of a hazardous chemical/substance with one that is less or non-hazardous. Extreme care must be taken to ensure that one hazard is not being exchanged for another, especially one that could even be a more serious hazard. |
| Work | Activities performed by Federal or contractor staff that involve the operation, maintenance, modifications, construction, demolition, or decommissioning of facilities, systems, or building service equipment, including the installation or removal of cabling. |
| Work permit | A document used to define the scope of work; analyze the environmental, safety, and health hazards; identify the work required controls and coordination; plan the work; review and approve the plan; authorize the start of work; and solicit feedback after completion. |
| Work rated as high-hazard | Work requiring the coordinated actions of multiple organizations and/or outside contractors; involving the potential for serious or life threatening injury to workers, occupants, or the public; involving the potential for significant damage to equipment or structures; and/or involving the potential for releases of reportable quantities of potentially hazardous materials to the environment. If any of these categories is met, the work is categorized as a high hazard. |

| Work rated as moderate- hazard | Work requiring the coordinated actions of two or three organizations, contractors, or person(s); involving the potential for injury to staff beyond basic first aid; involving the potential for minor damage to equipment or structures; and/or involving the potential for a release of hazardous materials to the environment (either internal or external). If any one of these conditions is met, the work is categorized as a moderate hazard. |
|--------------------------------------|--|
| Work rated as low-hazard | Work requiring the coordinated actions of only one organization and/or outside contractor; involving the potential for only minor injuries; involving no potential for damage to equipment or structures; <i>and</i> involving no potential for release of potentially hazardous materials to the environment, except as a result of gross negligence. All conditions must be met for work to be categorized as low hazard. |
| Worker- planned work | Work that can be safely conducted independently, by a single worker, based on the level of proficiency, training, and documented experience. This concept applies to all staff from professionals and technicians to the trades persons and laborers. |

Headquarters Work Planning and Control Program Flow Chart



Screening and Work Control Determination

The purpose of this checklist is to determine the level of controls required for the work to be completed.

| Project Name/Title: | o determine the r | ever or controls | required | Work #: | |
|---|-----------------------------|--|--|--|--|
| Assessment Performed by: Phone Number: | | | Date of Assessment: | | |
| Work Location: Building: | Room: | and a state of the | general Anna Strik | Other: | |
| Nature of Work: | | | Anticipated Work Time(s): During Business Hours (6 a.m. – 8 p.m.) After Business Hours (8 p.m. – 6 a.m.) On weekends/holidays | | |
| Reason for Performing Work: | Reason for Performing Work: | | Time/Coordination Constraints: | | |
| Special Considerations/Issues/Conce | rns: | Contractor: | oty and Has | alth Plan is current and has been approved | |
| | | Assessment | ety and mea | itu 1 ian is current and nas been approved | |
| Part A: Environment, Safety, and Ho | ealth Hazards | Assessment | | BANGARAN BANGARAN BANGARAN BANGAN BANGARAN BANGARAN BANGARAN BANGARAN BANGARAN BANGARAN BANGARAN BANGARAN BANG BANGARAN BANGARAN BA | |
| | | Work affects the | e integrity of | of the structure or fire barrier and may | |
| involve lead paint, asbestos, and | | | | | |
| | _ | • | • | ncluding pipe insulation, floor tiles, and/or | |
| | ition is unknown b | out asbestos prese | ence is poss | sible, check this box until definitive | |
| information is obtained. | | | | | |
| | - | | | omit, raw sewage, or dead animals. | |
| □ <u>Chemical/corrosives</u> – Work cre | | | | | |
| ☐ <u>Chemical storage or disposal</u> – V | | • | | | |
| | | | | ned for occupancy or regular maintenance. | |
| Digging/core drilling – Work inv | | _ | _ | | |
| Electrical work — Work involves Elevated work — Work involves | | | | | |
| harnesses, lanyards, or a fall prot | | more than six ie | et above ar | nother surface or use of scaffolding, | |
| ☐ Excavation – Work involves dig | | a trench more th | an three fe | et deen | |
| □ Explosives – Work involves the | | | | | |
| □ Fumes/mist/dust — Work activity | | | | | |
| | | · | | t or cold equipment, or strenuous labor for | |
| extended periods of time. | | P • • • • • • • • • • • • • • • • • • • | | | |
| ☐ <u>Hydraulic</u> – Work requires the st | orage, handling, or | r use of hydraulic | c fluid. | | |
| □ <u>Lead</u> – Work involves disturbance or removal of lead paint; working with lead solder or pipes; or cutting or torching | | | | | |
| painted metal surfaces or lead-co | | - | | | |
| ☐ <u>Material handling</u> — Work involv | es the movement of | of heavy loads, e | expensive l | oads, and/or hazardous material, | |
| □ <u>Molds/Bacteria</u> – Work involves | | | | | |
| □ <u>Noise</u> – Work involves potential | • | | | | |
| □ <u>Plants/Animals</u> – Work involves | _ | | _ | - | |
| □ <u>PCB</u> – Work may involve Polycl | | | | | |
| Pressurized Systems – work involves working with or around pressure | | | • | | |
| Radiation - Work involves hand | ling equipment tha | t contains a radic | active som | rce v_rays or radioactive materials or | |

| | involves working around non ionizing radiation including radio antennas and radiofrequency radiation. |
|-----|---|
| | Removing/penetrating walls or doors – Work involves drilling into or through walls or doors. Work may impact |
| | firewalls or fire-smoke-doors and may expose individuals to lead paint or asbestos. Work may damage or contact |
| | electrical lines or other critical infrastructure. |
| | Rigging – Work involves lifts that use basic lifting, hoisting, and rigging equipment. |
| | Soil Activation/Contamination – Work involves activated or contaminated soil. |
| | Spill Potential – Work involves the potential for a hazardous material release to the environment. A release can include |
| | uncontrolled releases to floor and sink drains, to soil, and/or to air. |
| | <u>Threatened or Endangered Species/Wetland Areas</u> – Work may affect habitat of protected species or wetlands. |
| | <u>Vehicular Traffic</u> – Work involves working with or around vehicular traffic. |
| | Welding – Work involves welding, torching, burning, or soldering. |
| | Other – Any other safety, health, fire safety, or environmental concern. |
| Pa | art B: Complexity Level |
| | Work involves shutting down two or more systems. |
| | Work involves properly isolating the work area. |
| | Work involves five or more major tasks/activities. |
| | Work involves a large number of steps that need to occur in sequential order. |
| . 🗆 | Work is prone to rapidly changing conditions. |
| | Work is infrequently done or it is a first time activity. |
| | Work involves using equipment outside of its normal operating range. |
| | Work involves new or inexperienced staff |
| | Work involves new or specialized equipment. |
| | Work if done incorrectly, could cause major system downtime. |
| | Work if done incorrectly, could cause adverse public reaction. |
| | Work requires the interruption of utilities |
| | Work involves unknowns (underground, behind walls, unknown wiring/piping, unknown chemicals/contents) |
| | art C: Coordination Level |
| | Work will be performed by a non-Office of Management (MA) contractor. |
| | Work requires notification of any regulatory agency. |
| | Work requires coordination between two or more support or operational organizations. |
| | Work requires inactivation of the fire alarm/fire suppression system. |
| | Work requires access to areas requiring special permission or escorts. |
| | Work has potential to impact two or more Program Offices. |
| | Work has to be performed at the same time or in a certain sequence with other specific work requests or operational |
| | activities. |
| | one or more boxes are checked, the work requires approval as part of the Prescribed Work or Permit-controlled work. Attach the checklist to the work permit, unless |
| res | ulting information must be protected as classified. |

| | THE STATE OF THE S | | | | | Appendix D |
|----------------------------|--|---------------|------------------------|-------------------|---------------------|--|
| | , | Headqı | ıarters Work I | | 484 885 11 | |
| Date: | | | Work Permit #: | | | |
| Project Name/Title: | | Start Dat | e: | End Date: | | |
| | | · | | | | |
| Work Requestor: | | Phone Nun | nber: | | Organi | zation: |
| Alternate Contact: | | Phone Nun | nber: | | | Permit-planned Work Prescribed Work |
| Work Location: | | | | | | |
| Building: | | Room: | | 1 | Other: | |
| Equipment: | | | | Service Provider: | | |
| Nature of Work: | | | | Anticipat | ted Work | Time(s). |
| ratare or work. | | | | | | ness Hours (6 am – 8 pm) |
| | | | | | | ss Hours (8 pm – 6 am) |
| | | | | | | s/holidays |
| Reason for Work: | | | | | | • |
| | | | | Time/Cod | ordinatio | n Constraints: |
| | | | | | | |
| | | | | | | |
| Contractor to Perform | ı Work: | | Contractor: | | | |
| | | | | | | s current and has been approved |
| Work Plan (procedures | s, timing, equipment, ai | nd personnel | availability need to | be address | ed; use at | tachment for detailed plans) Specify: |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| · | | | я. | | | |
| | | | | aalaa aa a | Jakanska dat skulli | |
| Uozard control mathods w | ust was the fall assing his | | ed Work Cont | | | ils; 3) administrative controls; 4) |
| personal protective equipm | | archy. 1) emm | mation of Substitution | i, z) enginee | mg comic | ns, 3) administrative controls, 4) |
| Part A: Environment, | | azards | | | 1 | r — Armanas da Balliare — Servi — Erice III A. Britisha a da Balawalia da Armana a |
| Identified Hazard | Check which apply | | Specific control | methods | | |
| □ Adding/removing | ☐ Engineering review | w | | | | |
| walls or roof, ceiling, | □ IH review | | | | | |
| or floors | □ Barricades | | | | | |
| | □ Posting/Warning S | Signs | | | | |
| □ Asbestos | ☐ Asbestos awarenes | | | | | |
| | ☐ Asbestos O&M tra | aining | | | | |
| | ☐ Asbestos permit | | | | | |
| | ☐ IH review | | | | | |
| | □ Barricades | | | | | |
| | □ Posting/Warning S | | | | | |
| | ☐ Supplemental Exh | aust | | | | |
| D' 1 1 | ventilation | | | | | |
| □ Biohazards | ☐ IH review | | | | | |
| - (1,, 1, / | □ Special Disposal | | | . | | : |
| □ Chemicals/ | □ MSDSs reviewed | | | | | |
| corrosives | ☐ Chemical substitut | non | | | | |
| Chaminal stars as | ☐ IH review | | | | | |
| ☐ Chemical storage or | ☐ IH review | a ati a sa | | | | |
| disposal | ☐ Barriers/Spill prote | | | • | | |
| | □ Posting/Warning S | | | | | |
| | ☐ Supplemental Exh ventilation | aust | | | | |
| | vennanon | | | | | |

| | | | Appendix D |
|---------------------|------------------------------------|-------------------|------------|
| | Headqua | rters Work Permit | |
| Date: | | Work Permit #: | |
| Project Name/Title: | | Start Date: | End Date: |
| | | | |
| □ Confined space | ☐ Confined Space Permit | | |
| | ☐ IH review | | |
| | ☐ Back-up person/Watch | | |
| | □ Posting/Warning Signs | | |
| n: : / | ☐ Supplemental Ventilation | | |
| □ Digging/core | ☐ Engineering review | | |
| drilling | ☐ Back-up person/Watch☐ Barricades | | |
| | □ Posting/Warning Signs | | |
| □ Electrical work | ☐ Lock-out/Tag-out equipment | | |
| Licenteal work | □ Lock-out/Tag-out equipment | | |
| | lines | | |
| □ Elevated work | ☐ Fall protection | | |
| | □ Scaffolding | | |
| | □ Barricades/Barriers | | |
| | □ Posting/Warning Signs | | |
| □ Excavation | □ Engineering review | | |
| | □ Barricades | | |
| | □ Posting/Warning Signs | | |
| □ Explosives | Special permission required | • | • |
| | □ Back-up person/Watch | | |
| | □ Barricades | | |
| | □ Posting/Warning Signs | | |
| □ Fumes/mist/dust | ☐ IH review | ٠ | |
| | □ Supplemental Exhaust | | |
| ☐ Heat/cold stress | ventilation □ IH review | | |
| l near cold sitess | ☐ Hydration | | |
| ☐ Hydraulic fluids | 1 Trydiation | | |
| 11yaraane malas | | | |
| □ Lead | □ IH review | | |
| | □ Barriers | | 1 |
| • | □ Posting/Warning Signs | | |
| ☐ Material handling | ☐ Back-up person/Watch | | |
| | □ Barricades | | |
| | □ Posting/Warning Signs | | |
| □ Molds/Bacteria | □ IH review | | |
| | □ Barriers | | |
| | □ Posting/Warning Signs | | |
| | □ Supplemental Exhaust | | |
| | ventilation | | |
| □ Noise | ☐ IH review | | |
| | ☐ Barriers | | |
| | □ Posting/Warning Signs | | |

□ Plants/Animals

□ Pressurized Systems

□ PCB

□ Barriers

□ IH review

□ Engineering review

| | | | | Appendix D | |
|---------------------------------------|------------------------------------|--|----------------|--|--|
| Headquarters Work Permit | | | | | |
| Date: | | | Work Permit #: | | |
| Project Name/Title: | | | Start Date: | End Date: | |
| Troject I turne, Title. | | | Start Date. | End Date. | |
| □ Radiation | □ Radiation permit | | | | |
| Radiation | ☐ IH review | | | | |
| | □ Barricades | | | | |
| | □ Posting/Warning Signs | | | | |
| □ Removing/ | □ Barricades | | | | |
| penetrating walls or | □ Posting/Warning Signs | | | | |
| doors | 1 Osting/ warning Signs | | | | |
| □ Rigging | □ Back-up person/Watch | | | | |
| Rigging | ☐ Barricades | | | | |
| | □ Posting/Warning Signs | | | | |
| □ Soil Activation/ | ☐ IH review | | | | |
| Contamination | ☐ Pre- & post-sampling | | | | |
| □ Spill Potential | ☐ Barriers/Barricades | | | | |
| | | | | | |
| ☐ Threatened or | ☐ Clean-up supplies | | | THE STATE OF THE S | |
| i | ☐ Federal/state/county permit | | | | |
| Endangered | | | | | |
| Species/Wetland Areas | | | | | |
| □ Vehicular Traffic | _ Ct+t-/ | | | | |
| venicular Traffic | □ State/county permit | | | | |
| | ☐ Back-up person/Watch☐ Barricades | | | | |
| | | | | | |
| | □ Posting/Warning Signs | | | | |
| □ Welding | □ Burn permit | | | | |
| T Other (Cresife) | □ Back-up person/Watch | | | | |
| □ Other (Specify) | · | | | | |
| D. A.D. C | | | | | |
| Part B: Complexity Le | evei | | | | |
| ☐ Shutting down two | | | | | |
| or more systems. | | | | | |
| ☐ Isolating the work | | | | | |
| area. | | | | | |
| ☐ Five or more major | | | | | |
| tasks/activities. | | | | | |
| ☐ Steps that need to | | | | | |
| occur in sequential | | | | | |
| order. | | | | | |
| □ Rapidly changing | | | | | |
| conditions. | | | | | |
| □ Infrequently done | | | | | |
| or first time activity. | | | | | |
| □ Equipment used | | | | | |
| outside of normal | | | | | |
| operating range. | | | | | |
| □ New or | | | | | |
| inexperienced staff | | | | | |
| □ New or specialized | | | | | |
| equipment. | | | | | |
| Could cause major | | | | | |
| system downtime. | | | | <u> </u> | |
| □ Could cause | | | | | |
| adverse public | | | | | |
| reaction. | | | | | |
| | | | | | |

| | Appendix D |
|--|---------------------------------------|
| Headqu | arters Work Permit |
| Date: | Work Permit #: |
| Project Name/Title: | Start Date: End Date: |
| | |
| □ Interruption of | |
| utilities | |
| □ Unknowns | |
| Part C: Coordination Level | |
| □ Performed by a | |
| non-MA contractor | |
| □ Notification to a | , |
| regulatory agency | |
| □ Coordination | |
| between two or more | |
| support or operational | |
| organizations | |
| ☐ Inactivation of the Outage request required | |
| fire alarm/fire | |
| suppression system | |
| □ Special permission | |
| or escorts required | |
| □ Impacts two or | |
| more Program Offices | |
| □ Sequential, | , , , , , , , , , , , , , , , , , , , |
| simultaneous, or | |
| coordinated work | |
| | Protections and Controls |
| Part D: Elimination/Substitution of Hazards | Part E: Engineering Controls |
| Specify: | Specify: |
| Specify. | Specif. |
| Part F: Work Practices | Part G: Personal Protective Equipment |
| Specify: | Specify: |
| | |
| Part H: Training | Part I: Special Working Conditions |
| Specify: | Specify: |
| Specify. | Specify. |
| Part J: Emergency Procedures | Part K: Other Required Permits |
| □ Spill containment/control | Specify: |
| □ Chemical release | Radiation |
| □ Sudden pressure release | □ Confined space |
| □ Sudden weather change | Digging/utility |
| □ Fire | □ Lock-out/Tag-out |
| □ Medical emergency/Injury | □ Hot work |
| □ Other | |
| N. Tan Santa and Control of the Cont | ough and Approvals |
| Part L: Post-work Requirements | Part M: Plan Walk-down/Meeting |
| □ As-built drawings | Date/Time of meeting: |
| □ Verification of cable removal | Attendees: |
| □ Verification of labeling | |
| ☐ Verification that signal and power cables are separated | |
| □ Verification of proper labeling/color coding | |
| □ Other | |
| | |

| | | | Appendix D | |
|-------------------------------|---|---|---|--|
| | Headq | uarters Work Permit | Appendix D | |
| Date: | | Work Permit #: | | |
| Project Name/Title: | | Start Date: | End Date: | |
| | appropriate procedures are in | & Date required. Signature means that n place to control the hazards, approprance with these procedures.) | | |
| Title | Name (Print) | Signature | Date | |
| Requestor | | | | |
| Program Office COR | | | | |
| Job Supervisor | | | | |
| Building Manager | | | | |
| HQ Safety and Health | | | | |
| Other: | | | | |
| Review completed | ☐ In Series ☐ As a team | Date Authorized to Start: | Date Permit Expires: | |
| | | e-Work Briefing | | |
| controls outlined in the plan | el performing the work ack (Signature below indicates th | knowledges that they have read and what individuals have read and understand on all sheets may be used, if needed.) | inderstand the plan, hazards, and nd the hazards, work controls, | |
| Supervisor Name: | | Signature: | | |
| Worker Name: | | Signature: | | |
| Worker Name: | | Signature: | | |
| Worker Name: | | Signature: | | |
| Worker Name: | | Signature: | | |
| Worker Name: | | Signature: | | |
| Part P: Authorization of Wo | rk to Proceed (permit has be | een reviewed, work controls are in plac | ee, site and workers are ready) | |
| Work Requestor Signature: | | Date/Time: | | |
| Part Q: Problems/Concerns | (document any concerns that | are raised and what was done to corre | ct them; including work stoppage) | |
| Specify problem/concern/cond | | Specify remedy: | | |
| | Post | t-Work Close-out | | |
| Part R: Work Close-Out | | | <u> 1919 - H. Berther D. H. Berther B. Karasakat Partoki (A. Nant</u> | |
| Date/time Job Completed: | | | | |
| Contractor Personnel Feedback | (use additional sheets if nec | essary) | | |
| | | | | |

| | | Appendix D |
|--|--|----------------------------|
| Headqua | arters Work Permit | |
| Date: | Work Permit #: | |
| Project Name/Title: | Start Date: | End Date: |
| Verification of Conditions □ Work quality is acceptable □ Work area/equipment is left in good, working condition □ As-built drawings updated and provided to Bldg Mgr. □ Verification of cable removal □ Manuals/instructions are submitted and provided to Bldg. Mgr. □ Verification that signal and power cables are separated □ Verification of proper labeling/color coding □ Other | Work Requestor Signature & Date: | |
| Comments: | | |
| | | |
| | | |
| Submit completed form to the Building Manager, unless infor | mation on or attached to the form must l | he protected as classified |

SPECIAL CONSIDERATIONS

The following list of special considerations must be considered as a part of the work permit requirements:

- For any work causing cabling to be abandoned, the abandoned cabling must be removed from the facility.
- Cabling at signal level voltage and fiber optical cable must be segregated from all power cables to the degree that they may not be installed in the same raceway or manhole.
- No or low volatile organic compound (VOC) paints and adhesives must be used at DOE Headquarters facilities.
- Lead-free plumbing components must be used at DOE Headquarters facilities.
- Color Coding: Color code all secondary service, feeder and branch circuit conductors throughout the project secondary electrical system as follows.

| 208y/120 Volts | Phase | 480y/277 Volts |
|----------------|--------------|----------------|
| Black | A | Yellow |
| Red | В | Brown |
| Blue | \mathbf{C} | Orange |
| White | Neutral | White |
| Green | Ground | Green |

- The colors shall be factory-applied entire length of the conductors by one of the following methods, except as noted and limited below: (a) solid color compound, (b) solid color coating, (c) surface printing every 300 mm, max spacing of 450 mm.
- o All branch circuit conductors Nos. 12 AWG and 10 AWG shall be solid color compound or solid color coating.
- All sizes of conductors used for neutrals and equipment grounds shall be solid compound or solid color coating white and green, respectively.
- o All phase conductors No. 8 AWG and larger color coded with pressure sensitive tape shall have a background color other than white or green.
- Field applied color coding methods may be used in lieu of factory coded wire in sizes larger than No. 10 AWG.
- O Color pressure-sensitive plastic tape shall be applied in half overlapping turns for a distance of 150 mm or all terminal points and in all boxes in which splices or taps are made. The last two laps of tape shall be applied with no tension to prevent possible unwinding.
- o Tape shall be 20 mm wide and colors shall be as specified.
- o Cable identification markings shall not be obliterated by taping and tape locations may be adjusted slightly to prevent obliteration of cable marking.