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CP3-SM-1101 FRev. 4C	TITLE: Work Package Development	Page 1 of 49

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REVISION/CHANGE LOG

Revision/Change Letter	Description of Changes	Pages Affected	Date of Revision/Change
FR0	Initial Release	All	10/18/2017
FR1	Intent revision from blue sheeted procedure.	All	12/19/2017
FR2	Revision to incorporate actions required from CA-001102 and functional directives; PM-18-005, EN-18-001, and EN-18-002. Corrected internal references.	20-24, 42-48	03/21/2018
FR2A	Non-Intent change to correct reference.	25	05/15/2018
FR2B	Changes for clarification	20, 24, 30, 47	05/29/2018
FR3	Changed title. General revision to align with current operations. Removed scheduling and CMMS instructions.	All	08/23/2018
FR4	Added approved work instructions to 6.1.2 B. Added allowance for general JHA and work instruction usage for Type 2 work when the risk level is low. Clarified JHA approval expectations.	All	10/10/2018

FR4A	Reconcile Appendix A, C, E, F, and G with Reviewers Titles from organization changes, and add reference to readiness review program.	3, 24-26, 28, 30, 35, 37, 38	02/26/2019
FR4B	Intent change to add new Steps 4.8.5, 5.9, 5.10, 6.2.4, 6.2.32, 6.3.1, 6.3.29, new Notes above Steps 6.2.4 and 6.3.1, and new Section 6.6 for Work Package revisions, updated Appendices A and D.	8, 10-13, 15-17, 19, 20, 23, 24, 26, 27, 29, 38,	08/22/2019
FR4C	Intent change to add new Steps 4.4.10, new notes prior to 4.8.6, 5.10, added bullet to 6.1.1. Added new changes to 4.4.9, 5.9, 5.10, 5.14, 6.2.21, 6.2.35, 6.2.36, 6.3.19, 6.3.20, 6.3.21, 6.3.32, 6.2.33. Changed Work Package Instruction to Work Instruction.	4, 5, 7, 8-12, 14- 16, 18-21, 23, 24, 28, 31, 33, 34, 41	12/18/19

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1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure defines the process used by the Paducah Gaseous Diffusion Plant (PGDP) Deactivation & Remediation (D&R) contractor to plan and release activity level work (ALW).

1.2 Scope

This procedure applies to all work performed by the PGDP D&R contractor.

Any Work Instruction or Work Package approved prior to the effective date of this procedure is considered "grandfathered" and may be used until either the next revision or the next required review date of that Work Instruction or Work Package.

Activities defined as "exclusions" in Appendix B, *Activities Excluded from the Work Planning Process,* **DO NOT** require any work control documentation or approval.

If the start up or restart of work activities are in a Hazardous Category 2 or 3 nuclear facility, **then** CP2-OP-1119, *Readiness Review Program at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky* must be followed prior to start of work. Chg A, C

Except for HHRB independent management review of high risk work activities, the requirements of this procedure **DO NOT** apply to the following:

- Subcontractor activities planned and executed according to CP3-SP-0019, *Subcontractor Work Planning and Execution*.
- Training activities performed in accordance with CP3-TR-0102, *Conduct of Training.*
- Activities performed by subcontractors, vendors, or third parties at an offsite location.
- Performance documents used as work control that are developed and maintained in accordance with CP3-OP-0002, *Developing and Maintaining Performance Documents.*

This procedure **DOES NOT** apply to work performed as a Government Furnished Services or Items (GFSI) by another site prime contractor.

2.0 REFERENCES

2.1 Use References

- CP2-OP-1119, *Readiness Review Program at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*
- CP3-CP-0001, *Request for Purchase* Chg A
- CP3-HS-2004, *Job Hazard Analysis*
- CP3-NS-2001, *Unreviewed Safety Question Reviews*
- CP3-OP-0002, *Developing and Maintaining Performance Documents*
- CP3-OP-0025, *Document Control Process*
- CP3-QA-1001, *Graded Approach*
- CP3-RD-0010, *Records Management Process*

- CP3-SI-0001, *Site Interface*
- CP3-SM-1102, *Activity Level Work Execution and Closeout*
- CP3-SM-1103, *High Hazard Review Board (HHRB) Charter* Chg C
- CP5-SM-1002, *Procurement Planning Process Guidelines*
- CP5-SM-1006, *Activity Level Work Control Document Writer's Guide*
- CP5-SM-1007, *Work Package Assembly Guidelines* Chg C

2.2 Source References

- CP1-NS-3001, *Technical Safety Requirements (TSRs) for the U.S. Department of Energy Paducah Site Deactivation Project*
- CP2-ES-0101, *Environmental Management System for the Deactivation and Remediation Project, Paducah Gaseous Diffusion Plant, Paducah, Kentucky* Chg C
- CP2-FP-2000, *Fire Protection Program Description for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*
- CP2-HS-1000, *Integrated Safety Management System Description for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*
- CP2-HS-2000, *Worker Health and Safety Program for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*
- CP2-NS-1000, *Nuclear Criticality Safety Program Description Document at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*
- CP2-OP-1100, *Conduct of Operations Program at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky* Chg C
- CP2-QA-1000, *Quality Assurance Program Description for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*
- CP2-SM-1000, *Activity Level Work Planning and Control Program Paducah Gaseous Diffusion Plant, Paducah, Kentucky* Chg C

3.0 COMMITMENTS

Nuclear Safety (NS), Nuclear Criticality Safety (NCS), and other regulatory requirements incorporated into Work Packages must be identified and adhered to during work execution.

4.0 RESPONSIBILITIES

The following titles apply to the PGDP D&R contractor; subcontractors may utilize different titles to satisfy the responsibilities.

4.1 Craft Workers

4.1.1 Participate in the planning process as a craft worker based on assigned classification, position, and experience.

4.1.2 Assist in development of Work Packages and sequencing of activities and work steps and identification of operating experience that promotes continuous process improvement.

4.1.3 Maintain a questioning attitude and willingness to participate in planning. Chg C

4.1.4 Support development of hazard identification and controls for Work Packages.

4.1.5 Review Work Packages to ensure the scope of work and associated steps are clear, work can be performed safely and as written, and necessary parts and/or materials are identified.

4.2 High Hazard Review Board

4.2.1 Performs technical review of documentation in accordance with CP3-SM-1103, *High Hazard Review Board (HHRB) Charter*. Chg C

4.2.2 Interviews Responsible Managers (RM), Supervisors, Contract Technical Representatives (CTRs), and any other parties responsible for the safe conduct of planned work to complete the following objectives:

A. Verifying the presenting manager /Supervisor has fully reviewed all relevant documents.

B. Confirming that the presenting manager is cognizant of Work Package details, including work steps, hazards, and mitigations.

C. Confirming “what if” scenarios have been discussed with the work team and can be freely articulated.

D. Confirming Work Package and hazard controls are specific to the job that will be conducted and understanding how they will be conveyed to the field crew and support personnel.

E. Confirming field work has the proper level of supervision and safety coverage commensurate with identified hazards and potential risks.

F. Verifying involvement of a worker representative in the preparation of Work Package.

G. Verifying a walk down of the work area has or will soon be completed by Supervisors and workers prior to work start.

4.2.3 Authorizes the initiation of hazardous work following a successful review, or prevents initiation of such work until revisions are made and/or actions taken.

4.2.4 Documents review and approval of hazardous work authorization.

4.2.5 Assigns, as necessary, performance observations or oversight commensurate with the work to be performed.

4.2.6 Evaluate the need for specialized training/qualification in order to compliantly perform the work scope. Chg C

4.3 Planning Managers

4.3.1 Stays cognizant of the status of work under their authority.

4.3.2 Responsible for selection and/or assignment of appropriate planning team personnel, for walkdowns, Job Hazard Analysis (JHA), training/qualification determination, and Work Package development. Chg C

4.3.3 Responsible for making daily planning assignments, for emergent work.

4.4 Responsible Managers (RM)

4.4.1 Responsible for ensuring the availability of planning team resources, based on work priority.

4.4.2 Responsible for final approval of Work Packages, under their authority, prior to release to the field for execution.

4.4.3 Allows sufficient allocation of time in project scheduling to support development of appropriate Work Package for defined work scope.

4.4.4 Ensures work scopes are properly identified and developed such that work is executed in a safe, cost-effective, and compliant manner, while meeting project performance objectives and goals.

4.4.5 Ensures participation of appropriate Subject Matter Experts (SMEs) in work scope and requirements development to include training/qualification.

4.4.6 Assigns an appropriately trained/qualified supervisor and execution team to support planning and execution of the work scope. Chg C

4.4.7 Ensures that work does **NOT** begin until funding and the required work authorizations are in place.

4.4.8 Supports Work Planners by identifying and eliminating obstacles to planning in order to keep planning activities on schedule.

4.4.9 Ensures the scope of each Work Package is sufficient for the work being performed.

4.4.10 Responsible for presenting **or** assigning a presenter of Work Packages to the HHRB.

4.4.11 Prior to being granted signature approval authority, successfully completes F00496CR, *Activity Level Work Planning & Control Development*. Chg C

4.5 Reviewers or Designees

4.5.1 Participates in the planning process as a SME in their respective area for scope of work development, requirement identification, analysis, and control for development of Work Packages.

4.5.2 Supports selection of requirements from their area of expertise that must be integrated into Work Packages according to Appendix E: *Reviewer Requirements*.

4.6 Supervisor

4.6.1 Supports the planning process by ensuring the availability of craft resources, as necessary, for participation.

4.6.2 Leads (along with the Work Planner) the development of hazard and control identification documentation and JHA development.

4.6.3 Reviews and provides feedback during development of Work Package and JHA.

4.6.4 Leads craft walk downs for hazard identification and Work Package verification/validation.

4.6.5 Requests planning support for revisions to Work Packages when the need is identified.

4.6.6 As assigned, responsible for presentation of Work Packages to the HHRB.

4.7 Unreviewed Safety Question Preparer/Reviewer

4.7.1 Performs review of Work Packages against the documented safety basis of the facility where the work will be performed to ensure that the work is within the defined safety basis and does **NOT** introduce an unreviewed safety question (USQ).

4.7.2 Ensures changes and revisions made to Work Packages **DO NOT** introduce an USQ.

4.7.3 Documents USQ reviews as according to CP3-NS-2001, *Unreviewed Safety Question Reviews.*

4.8 Work Planner

4.8.1 Screens work scopes and determines Work Package requirements based on performance risk.

4.8.2 Establishes and retains an electronic development folder for planning documentation associated with individual tasks or work scopes to provide a record of the planning process and WPC program implementation.

4.8.3 Assumes authority of work planning processes and acts as leader of teams assigned for planning, including final authority over meeting locations and schedules, attendance requirements, and assignment of responsibilities for planning.

4.8.4 Initiates and tracks procurement of parts and materials in accordance with CP5-SM-1002, *Procurement Planning Process Guidelines.* Chg C

4.8.5 May initiate Hazard Identification Checklist (HIC) Planning Team meeting in order to prepare Job Hazard Analysis (JHA), in accordance with CP3-HS-2004, *Job Hazard Analysis*. Chg B, C

4.8.6 **If** the following requirements have been met, **then** may perform the functions of JHA preparer in accordance with CP3-HS-2004:

- Has been assigned by supervision
- Has been trained in the use of the Job Hazard Analyses web-based software (for example, listed on Position Assignment Form).

4.8.7 Ensures Work Packages meet requirements in Work Package Control (WPC) procedures and guidelines.

4.9 Work Package Control Center (WPCC)

4.9.1 Maintains custody of approved Work Packages until issued for execution.

4.9.2 Updates computerized maintenance management system (CMMS) status codes as required.

4.9.3 Maintains index and controlled document file of Work Package numbers, if approved for repetitive use.

5.0 GENERAL INFORMATION

5.1 This procedure does **NOT** cover how ALW is scheduled or released. Scheduling and work assignments are the responsibility of the performing organizations, such as Stabilization & Deactivation (S&D), Surveillance & Maintenance (S&M), Environmental Services, or Operations. They are typically controlled by either a computerized maintenance management system (CMMS), project schedule, or plan of the day/week (POD/POW) authorizations.

5.2 Procedures, specifications, and other work-related documents [for example, Facility Change Traveler (FCT), Design Installation and Verification Specifications (DIVS), excerpted text, drawings, sketches, vendor or manufacturer manuals and other documents] may be incorporated into Work Packages. The sources provide appropriate direction for safe and efficient work performance. The documents are reviewed and, as appropriate, approved for use. The documents are properly referenced within the Work Instruction and made available for reference by work teams as needed. Chg C

NOTE:

The Hierarchy of Controls for selection is as follows:

1) Eliminate the Hazard
2) Engineered Controls
3) Administrative Controls
4) Personal Protective Equipment

5.3 The first priority in hazard controls for all work scopes is to eliminate environmental and activity hazards and avoid exposure. For hazards that **CANNOT** be eliminated or processes that may **NOT** be substituted with less hazardous alternatives, engineering and/or administrative controls are identified and integrated to minimize hazard exposure or the consequences of hazard exposure. **If** engineering and/or administrative controls cannot be feasibly deployed, **then** personal protective equipment (PPE) may be used to reduce or otherwise mitigate exposure.

5.4 During work scope and work instruction development the need for specialized training/qualification requirements for specific hazards/tasks (for example, asbestos, blood-borne pathogens, fissile work, welding, etc.) will be taken into consideration. Chg C

5.5 During hazard analysis and identification of controls, potential unintended conflict associated with hazard controls (for example, the effect of PPE ensembles on heat stress exposure) will be evaluated by the S&H group to optimize controls for the specific exposure scenario.

5.6 Work control documents produced by a CMMS may be used in place of the forms defined by this procedure if they meet the intent of the procedure-defined forms.

5.7 It is important to distinguish between changes and routine maintenance activities. Changes to structures, systems, and components (SSC) in HC 2 or HC 3 nuclear facilities that **DO NOT** impact the Safety Basis are not routine maintenance activities. An SSC is considered to be changed if any of the following were to be altered:

- Its function(s)
- The method of performing those functions
- Its design configuration.

All work control packages implementing plant configuration changes require review by USQ qualified personnel.

5.8 CP3-SI-0001, *Site Interface*, defines the process used to communicate information regarding ALW that, based on work location or potential impacts, requires coordination with other site contractors.

5.9 Required reviews for changes or revisions to Work Packages include those functional areas and/or SMEs affected by the changes made.

5.10 Work instruction or work package concurrences are to be attained via email **or** per telephone communication (telecom). **If** concurrence is attained via telecom, **then** concurrence shall be documented on the request for concurrence email. (Example: "John Doe for John Smith per telecom, 1/2/19") Chg B, C

NOTE:

Approvals must be in the form of a physical signature and date by either the approver or authenticator (for example; Planner, Planning Manager, Responsible Manager, etc.). **If** the approval is per email, **then** a copy of the email must be kept on file. Chg C

5.11 Work instruction or work package approvals are to be attained via signature, per telecom, or email. **If** approval is attained via telecom or email, **then** approval shall be documented on or adjacent to the approval line/block or status log. (for example; "John Doe[*signature*] for John Smith per attached email, 1/2/19" or "John Doe[*signature*] for John Smith per telecom, 1/2/19") Chg B, C

5.12 Planning meeting attendance is documented using CP3- SM-1101-F07, *Planning Work Team Meeting Roster*. The Work Planner is responsible for scheduling and leading all planning meetings.

5.13 Type 4: Work Packages (Procedures) are the preferred method of work control for moderate risk maintenance category work scopes that are frequently or routinely performed. Performance document work control performed as operations category work may be performed with stand-alone operations procedures. JHA development requirements for performance documents are defined in CP3-OP-0002, *Developing and Maintaining Performance Documents.* Hazard control integration guidance is provided by CP5-SM-1008, *Hazard/Control Integration Guide.*

5.14 Representatives of the DOE Paducah Site Office must be invited to attend any planning meetings.

5.15 Appendix F, *Type 1 Work Package Development Checklist*, Appendix G, *Type 2 Work Package Development Checklist*, and Appendix H, Type 3 *Work Package Development Checklist* may be used at the work planner or supervisor's discretion as a tool during the development or revision of Work Packages. Chg C

6.0 INSTRUCTIONS

6.1 Screening Work Scopes to Determine Planning Requirements

Work Planner

NOTES:

- An abbreviated scope statement may be used in a work order description or on a Work Package coversheet.
- Additional personnel may need to be contacted in the development of the work scope, such as craft, SMEs, and RMs

6.1.1 **If** the work scope is incomplete, lacking detail, or inaccurate **then** update the work scope to establish the foundation for the remaining portions of the work planning process, including the following as applicable:

- The type(s) of craft necessary to complete the work;
- The purpose of the activity **or** work being performed;
- The location or major equipment or components;
- Identifying the major tasks/steps for accomplishing the assigned work scope in order to identify hazards (For example, what to do);
- The mechanisms and/or approaches for completing the assigned work scope (For example, how to do it) and;
- The established boundaries for completing the assigned work scope (In other words, information to help prevent "scope creep" such as specific work location and clear work boundaries).
- Ensure work order description is consistent with work scope statement that will be used for the work instruction and the work order description provides further clarification to identify major equipment and boundaries, to the extent the CMMS can support. Chg C

NOTES:

- For a repetitive scope that has been previously screened and an approved Work Instruction will be used to execute the scope, a new screening does **NOT** need to be completed for each scheduled performance of the scope. The previous documented screening may be placed in the electronic planning file.
- Approved and controlled work instructions reside in the Shared Drive S:\Controlled Documents\Work Control and may be used for requested work that falls within the scope of these instructions. Chg B

6.1.2 **If** all needed information is available, **then** screen the work scope using CP3-SM-1101-F01, *Work Screening Worksheet* and Appendix D, *Work Planning Rigor Based on Performance Risk* to determine the appropriate level Work Package.

A. **If** the scope is screened as low risk **and** is a documented exclusion to WPC according to Appendix B, **then** notify the RM or designee that no Work Package is required and the job is ready for execution.

NOTE:

If the scope will be performed repetitively throughout the duration of the project, **then** consideration should be given to the development of an Episode Work Control Package or technical procedure to perform the work.

B. **If** work can be performed using an approved technical procedure **or** controlled work instruction, **NOT** requiring HHRB/ERB approval per CP3-SM-1103, **then** assemble a Work Package **and** notify the RM or designee that the Work Package is ready for execution. Chg C

NOTE:

Work Package requirements for specific work scopes, activities, or tasks are determined based on the performance risk level defined in Appendix D. However, tasks with specific regulatory requirements may require a higher level of rigor than indicated in Appendix D, [for example, regulatory requirements for M&TE calibration would **NOT** be met using a Type 3 Work Package. This activity would require at least a Type 2 Work Package or procedure to ensure requirements are properly met].

C. **If** a work instruction must be developed, **then:**

- **If** the work scope must be completed using a Type 1 or 2 Work Package, **then** determine the required reviewers for the work instruction according to Appendix C, *Reviewer Determination Matrix*.

Planning Manager

- **If** the work scope must be completed using a Type 1 or 2 Work Package, **then** based on the required reviewers, determine the minimum personnel that must be a member of the planning team.

Work Planner

6.1.3 Proceed to the appropriate section (**6.2, 6.3,** or **6.4)** for the determined Work Package type to develop.

6.2 Type 1 Work Package Development

Planning Team

NOTES:

- Planning team members may be excused from the walkdowns and/or tabletop discussion at the discretion of the Planning Manager. Excuses are documented on CP3-SM-1101-F07, *Planning Work Team Meeting Roster*.
- Representatives of the DOE Paducah Site Office must be invited to all planning meetings using "Planning Team Invitation" email distribution list.

6.2.1 Perform walk downs(s) and/or tabletop discussion(s) to identify the major tasks/steps that will be taken to complete the work scope and the hazards associated with the execution of the scope.

6.2.2 Document identified hazards on CP3-HS-2004-F01, *Hazard Identification Checklist (HIC).*

NOTE:

- Additional SMEs may be called upon to assist in the identification of hazard controls.
- When practical the JHA should be drafted and/or reviewed in real time by the planning team to ensure that the controls are appropriate for the activity being planned.
- The JHA does **NOT** have to be finalized at this point to allow for refinement of controls during the planning process.

6.2.3 Determine the controls that will be used to execute the scope by developing a JHA according to CP3-HS-2004, *Job Hazard Analysis*.

Work Planner

NOTE:

The work instruction development file is used to save documentation used and/or created during the development of the work instruction (for example: email concurrences, draft/final copies, lessons learned, etc.)

Chg B

6.2.4 Create a work instruction development file on (S:) drive.

NOTE:

The generation of "Lessons Learned" is **NOT** the sole responsibility of the Work Planner. The Work Planner should coordinate, facilitate, and consult with all identified SMEs to ensure the information is relevant to the activity being performed.

6.2.5 Based on the tasks, tools, and/or hazards, identify applicable "Lessons Learned" from available Operating Experience and Lessons Learned data.

NOTE:

If an IHWP is developed as a result of the JHA, **then** the IHWP will be treated as an extension of the JHA, including integration of hazard controls into the Type 1 work instruction.

6.2.6 Draft the work instruction on CP3-SM-1101-F16, *Type 1 Work Instruction* using the identified lessons learned and CP5-SM-1006, *Activity Level Work Control Document's Writer's Guide* **and** incorporate the hazard controls into the instruction according to CP5-SM-1008, *Hazard Control Integration Guide*.

NOTE:

Review and concurrence may be conducted by e-mail or a roundtable review.

6.2.7 Distribute the draft, JHA, IHWP (if any), and identified lessons learned to the reviewers for review.

Chg B

NOTE:

Work steps 6.2.7-6.2.8 may be performed at any time during the planning process.

Work Planner & Execution Team

6.2.8 Identify **and** document known materials and parts that must be procured or available for the work on CP3-SM-1101-F11, *Work Order Materials/Parts Worksheet.*

6.2.9 Initiate procurement of materials according to CP5-SM-1002, *Procurement Planning Process Guidelines*. Chg C

Reviewer(s)

NOTES:

- Area specific review responsibilities are identified in Appendix E, *Reviewer Requirements.*
- Reviews may be performed by email or a roundtable review.

6.2.10 Review the draft based on area of expertise as well as those related to safety:

A. Ensure comments are clear and objective, **NOT** a question.

B. **If** no comments, **then** indicate no comments in a reply email.

NOTE:

Comments should be submitted to the Work Planner via email, unless comment resolution is being conducted via round table review.

6.2.11 Submit comments to the Work Planner by the required response date.

Work Planner

6.2.12 Resolve all reviewer comments **and** obtain reviewer concurrence.

6.2.13 **If** there is an unresolvable comment, **then** send the comment to the Planning Manager.

Planning Manager

NOTE:

If resolution cannot be agreed to between the Planning Manager and reviewer, **then** a higher level of management shall resolve the comment.

6.2.14 Discuss the comment with the SME to obtain concurrence. Comments relating to the following shall be resolved:

- A conflict with Quality Program or regulatory requirements.
- A proposed change to or removal of content associated with an internal or regulatory Commitment which, if left as proposed, renders the procedure incapable of ensuring continued Commitment compliance.
- Information in the work instruction which is inaccurate.
- Processes or work steps which cannot be used as written.
- A conflict with other processes.

6.2.15 Document the decision to accept or reject the comment and submit to the work planner to retain in the work instruction's development file to be submitted to Records.

Work Planner

NOTE:

If the work is **NOT** ready to be executed, **then** the work package may be assembled electronically.

6.2.16 Once all comments are resolved or rejected and the draft is ready, assemble the Work Package **and** submit the Work Package to the execution team for pre-work validation.

Execution Team

6.2.17 Conduct a pre-work validation of the Work Package to verify the usability and correctness of the Work Package.

6.2.18 Document the validation on CP3-SM-1101-F20, *Work Package Pre-Work Validation*.

6.2.19 **If** the Work Package is **NOT** acceptable, **then** work with the Work Planner to resolve any concerns.

Work Planner

6.2.20 **If** changes were made, **then** obtain concurrence from affected reviewers.

6.2.21 Ensure JHA has been finalized. Chg C

6.2.22 Submit the work instruction to the RM.

Responsible Manager

6.2.23 Coordinate HHRB review according to Section **6.5**.

Work Planner

6.2.24 After HHRB approval, **if** the work is a routine maintenance activity identified below, **then** N/A the Nuclear Safety Documentation line on the instruction and proceed to Step **6.2.32**. Chg B, C

- Calibration of uninstalled equipment,
- Refurbishment of installed or removed equipment,
- Replacement of components with either like for like or equivalent components.

Planning Team

6.2.25 **If** changes were made to JHA, **then** ensure the JHA is finalized. Chg C

Work Planner

6.2.26 **If** the work is **NOT** a routine maintenance activity identified in Step **6.2.24**, **then** submit the Work Instruction to the USQ Preparer or Reviewer. Chg B, C

USQ Preparer/Reviewer

6.2.27 Review the Work Instruction based on the applicable safety basis documents and controls.

6.2.28 Determine whether the Work Instruction activity requires USQ documentation.

6.2.29 **If** the Work Instruction requires USQ documentation, **then** prepare **and** obtain approval of appropriate document according to CP3-NS-2001. Chg C

Work Planner

6.2.30 **If** the USQ review identifies a need to make changes to the Work Instruction, **then** make required changes.

6.2.31 **If** changes were made, **then** repeat review steps as necessary to ensure changes made are acceptable to reviewers and HHRB Chair.

6.2.32 Submit the Work Instruction to the RM. Chg B, C

6.2.33 Save concurrence emails in work instruction development file.

Responsible Manager

6.2.34 Approve the Work Instruction.

Work Planner

Chg C

6.2.35 **If** work is **NOT** ready to be executed, **then** place the approved work instruction in the electronic work package file.

6.2.36 **If** work is ready to be executed, **then** assemble the Work Package.

6.2.37 Deliver **or** submit the Work Package to WPCC, owner, or end user to be scheduled and/or executed.

6.2.38 Submit the Work Instruction's history package to Records Management according to CP3-RD-0010, *Records Management Process*.

6.3 Type 2 Work Package Development

Work Planner

NOTE:
The work instruction development file is used to save documentation used and/or created during the development of the work instruction (for example, email concurrences, draft/final copies, lessons learned, etc.

Chg B

6.3.1 Create a work instruction development file on (S:) drive.

6.3.2 **If** the RM wants the Type 2: Work Instruction available for future use, **then** obtain a Type 2 Work Instruction Number from the WPCC.

6.3.3 **If** the Type 2 Work Instruction will only be used to execute one Work Package, **then** identify the unique identifying number on the Type 2 Work Instruction.

Planning Team

NOTES:

- Planning team members may be excused from the walkdowns and/or tabletop discussion at the discretion of the Planning Manager. Excuses are documented on CP3-SM-1101-F07, *Planning Work Team Meeting Roster*.
- Representatives of the DOE Paducah Site Office shall be invited to all planning meetings using "Planning Team Invitation" email distribution list.

6.3.4 Perform a walk downs and/or tabletop discussion to identify the major tasks/steps that will be taken to complete the work scope and the hazards associated with the execution of the scope.

6.3.5 Document identified hazards on CP3-HS-2004-F01, *Hazard Identification Checklist (HIC).*

6.3.6 **If** the work scope is low risk according to Appendix D **then** perform one of the following:

- **If** the hazards and controls for the work scope are completely addressed in a general JHA (Sitewide, Project, or Location), the trained execution team, **then** identify the JHA number on CP3-SM-1101-F18, *Type 2 Work Instruction*.
- **If** the hazards and controls for the work scope are mostly addressed in a general JHA (Sitewide, Project, or Location), the trained execution team, **then** identify the remaining hazards and controls on CP3-SM-1101-F18 **and** identify the JHA number on CP3-SM-1101 F18, *Type 2 Work Instruction*.
- **If** the hazards and controls for the work scope are **NOT** addressed in a general JHA (Sitewide, Project, or Location) , the trained execution team, **then** identify the hazards and controls on CP3-SM-1101-F18.

NOTE:

- Additional SMEs may be called upon to assist in the identification of hazard controls.
- When practical the JHA should be drafted and/or reviewed in real time by the planning team to ensure that the controls are appropriate for the activity being planned.
- The JHA does **NOT** have to be finalized at this point to allow for refinement of controls during the planning process.

6.3.7 **If** the work scope is moderate risk according to Appendix D, **then** determine the controls that will be used to execute the scope by developing a JHA according to CP3-HS-2004, *Job Hazard Analysis*.

Work Planner

NOTE:

The generation of "Lessons Learned" is **NOT** the sole responsibility of the Work Planner. The Work Planner should coordinate, facilitate, and consult with all identified SMEs to ensure the information is relevant to the activity being performed.

6.3.8 Based on the tasks, tools, and/or hazards, identify applicable "Lessons Learned" from available Operating Experience and Lessons Learned data.

NOTE:

If an IHWP is developed as a result of the JHA, **then** the IHWP should be treated as an extension of the JHA, including integration of hazard controls into the Type 2 Work Instruction.

Chg B

6.3.9 Draft the work instruction on CP3-SM-1101-F18 using the identified lessons learned and CP5-SM-1006 **and** incorporate the hazard controls into the instruction according to CP5-SM-1008.

NOTE:

Review and concurrence may be conducted by e-mail or roundtable review.

6.3.10 Distribute the draft, JHA, IHWP (if any) and identified lessons learned for review.

Chg B

NOTE:

Work Steps **6.3.11-6.3.12** may be performed at any time during the planning process.

Work Planner & Execution Team

6.3.11 Identify **and** document known materials and parts that must be procured or available for the work on CP3-SM-1101-F11, *Work Order Materials/Parts Worksheet.*

6.3.12 Initiate procurement of materials in accordance with CP5-SM-1002, *Procurement Planning Process Guidelnes*.

Chg C

Reviewer(s)

NOTES:

- Area specific review responsibilities are identified in Appendix E, *Reviewer Requirements.*
- Reviews may be performed electronically or at a roundtable review.

6.3.13 Review the draft based on area of expertise as well as those related to safety:

A. Ensure comments are clear and objective, **NOT** a question.

B. **If** no comments, **then** indicate no comments in a reply email.

NOTE:

Comments should be submitted to the Work Planner via email, unless comment resolution is being conducted via round table review.

6.3.14 Submit comments to the Work Planner by the required response date.

Work Planner

6.3.15 Resolve all reviewer comments **and** obtain reviewer concurrence.

6.3.16 **If** there is an unresolvable comment, **then** send the comment to the Planning Manager.

Planning Manager

NOTE:

If resolution cannot be agreed to between the Planning Manager and reviewer, **then** a higher level of management shall resolve the comment.

6.3.17 Discuss the comment with the SME to obtain concurrence. Comments relating to the following shall be resolved:

- A conflict with Quality Program or regulatory requirements.
- A proposed change to or removal of content associated with an internal or regulatory Commitment which, if left as proposed, renders the procedure incapable of ensuring continued Commitment compliance.
- Information in the procedure which is inaccurate.
- Processes or procedural steps which cannot be used as written.
- A conflict with other processes.

6.3.18 Document the decision to accept or reject the comment and submit to the work planner to retain in the work instruction's development file to be submitted to Records.

Work Planner

NOTE:

Text Deleted

6.3.19 Once all comments are resolved or rejected and the draft is ready, assemble draft Work Package electronically.

Chg C

Planning Team

6.3.20 **If** a JHA was developed for the work instruction, **then** ensure the JHA is finalized.

Responsible Manager

6.3.21 Coordinate HHRB review according to Section **6.5** if work activities involve the following:

- Demolition of the exterior walls of a building/structure
- Demolition of exterior tanks not confined within the walls of a permanent building/structure

Work Planner

6.3.22 **If** the work is a routine maintenance activity identified below, **then** N/A the Nuclear Safety Documentation line on the instruction and proceed to Step **6.3.29**.

Chg B

- Calibration of uninstalled equipment,
- Refurbishment of installed or removed equipment,
- Replacement of components with either like for like or equivalent components.

6.3.23 **If** the work is **NOT** a routine maintenance activity identified in step **6.3.22, then** submit the Work Instruction to the USQ Preparer or Reviewer. Chg B, C

USQ Preparer/Reviewer

6.3.24 Review the Work Instruction based on the applicable safety basis documents and controls.

6.3.25 Determine whether the Work Instruction activity requires USQ documentation. Chg C

6.3.26 **If** the Work Instruction requires USQ documentation, **then** prepare **and** obtain approval of appropriate document according to CP3-NS-2001.

Work Planner

6.3.27 **If** the USQ review identifies a need to make changes to the Work Instruction, **then** make required changes.

6.3.28 **If** changes were made, **then** repeat review steps as necessary to ensure changes made are acceptable to reviewers.

6.3.29 Submit the Work Instruction to the RM. Chg C

6.3.30 Save concurrence emails in work instruction development file. Chg B

Responsible Manager

6.3.31 Approve the Work Instruction.

Work Planner Chg C

6.3.32 **If** work is **NOT** ready to be executed, **then** place the approved work instruction in the electronic work package file.

6.3.33 **If** work is ready to be executed, **then** assemble the Work Package.

6.3.34 Deliver **or** submit the Work Package to WPCC, owner, or end user to be scheduled.

6.3.35 **If** the Type 2: Work Instruction was assigned a controlled number in Step **6.3.2, then** submit the approved Type 2: Work Instruction to Document Control according to CP3-OP-0025. Chg B

6.3.36 Submit the Work Instruction's history package to Records Management according to CP3-RD-0010.

6.4 Type 3 Work Package Development Chg C

NOTE:

Type 3 Work Instructions are used for work tasks that are recognized to be limited in complexity and risk from hazards when performed in a stable work environment (where location-specific hazards are expected to remain unchanged during work performance) by skilled craftspeople. Written work steps are **NOT** necessary for Type 3 Work Instruction.

Work Planner or Supervisor, and Execution Team

6.4.1 Identify the scope to be completed through the use of a Type 3 Work Instruction.

6.4.2 Identify the hazards associated with the execution of the scope.

6.4.3 Document identified hazards on CP3-HS-2004-F01, *Hazard Identification Checklist (HIC).*

NOTE:

- Additional SMEs may be called upon to assist in the identification of hazard controls.
- **If** a Health and Safety Plan (HASP) has been developed for the site, project, or location, **then** it may be used in lieu of a JHA.

6.4.4 Ensure the hazards and controls for the work scope are addressed in a general JHA (Sitewide, Project, or Location) that the execution team is trained to.

6.4.5 **If** the hazards and controls for the work scope are **NOT** addressed in a general JHA (Sitewide, Project, or Location) that the execution team is trained to, **then** either revise the general JHA (Sitewide, Project, or Location) that the execution team is trained to **or** plan the work as a Type 2 Work Instruction. Chg C

Work Planner or Supervisor

6.4.6 Obtain review and concurrence from:

- S&H
- RADCON (if in a radiologically controlled environment)
- Regulatory Compliance

6.4.7 **If** the work is a routine maintenance activity identified below, **then** N/A the Nuclear Safety Documentation line on the instruction and proceed to Step **6.4.14**.

- Calibration of uninstalled equipment,
- Refurbishment of installed or removed equipment,
- Replacement of components with either like for like or equivalent components.

6.4.8 **If** the work is **NOT** a routine maintenance activity identified in Step **6.4.7**, **then** submit the Work Instruction to the USQ Preparer or Reviewer.

USQ Preparer/Reviewer

6.4.9 Review the Work Instruction based on the applicable safety basis documents and controls. Chg C

6.4.10 Determine if the Work Instruction activity requires USQ documentation.

6.4.11 **If** the Work Instruction requires USQ documentation, **then** prepare **and** obtain approval of appropriate document according to CP3-NS-2001.

Work Planner or Supervisor

6.4.12 **If** the USQ review identifies a need to make changes to the draft Work Instruction, **then** make required changes.

6.4.13 **If** changes were made, **then** repeat review steps as necessary to ensure changes made are acceptable to reviewers, as applicable.

NOTE:

If the work is **NOT** ready to be executed, **then** the work package may be assembled electronically

6.4.14 Assemble the Type 3 Work Package according to CP5-SM-1007.

6.4.15 Submit the Work Package to the RM.

Responsible Manager

6.4.16 Approve the Work Package.

Work Planner or Supervisor

6.4.17 Deliver **or** submit the Work Package to WPCC, owner, or end user to be scheduled and/or executed.

6.5 HHRB Review of Hazardous Work

Responsible Manager

6.5.1 Ensure an independent management review by the HHRB is scheduled if ALW is: Chg C

- High performance risk, as defined in Appendix D
- Demolition of the exterior walls of a building/structure
- Demolition of exterior tanks not confined within the walls of a permanent building/structure.

NOTE:

The HHRB Chair, at their sole discretion, may choose to act (via Chair Review) without convening the HHRB and will document their review/basis and decision on CP3-SM-1101-F15, *High Hazard Review Board Form*.

HHRB Chair

6.5.2 **If** acting (via Chair Review) without convening the HHRB, **then** document review and approval of hazardous work authorization on CP3-SM-1101-F15.

HHRB

6.5.3 Perform technical review of documentation according to CP3-SM-1103, *HHRB Charter*.

6.5.4 Record any comments or changes required to the Work Package and/or other required actions on CP3- SM-1101-F15.

NOTE:

Responsible document writers may include, but are **NOT** limited to, Work Planners, RMs, Construction Engineers, and Procedure Writers.

6.5.5 **If** Work Package changes are required, **then** provide CP3- SM-1101-F15 to the responsible document writer.

Responsible Document Writer

6.5.6 **If** changes are required, **then** perform the following:

A. Resolve **and** incorporate any comments or changes to the Work Package required by the HHRB.

B. Repeat review and approval steps for Work Package as necessary.

C. Obtain HHRB Chair or designee approval of Work Package comment resolution on CP3‑SM-1101-F15.

HHRB Chair (or designee)

6.5.7 Present HHRB results to ERB Chair **and** obtain approval prior to authorizing any of the following activities:

- Demolition of the exterior walls of a building/structure
- Demolition of exterior tanks not confined within the walls of a permanent building/structure.

Chg C

HHRB/ERB

NOTE:

Once the HHRB and ERB (if required) are satisfied that a job is well planned, staffed, and supervised, the board will grant authorization to complete the planning process and start work according to CP3-SM-1102, *Work Execution and Closeout*.

6.5.8 After the board review is successful, authorize initiation of the hazardous work upon completion of the planning or document development process.

6.5.9 Document review and approval of hazardous work authorization on CP3- SM-1101-F15.

6.6 Work Package Revisions

Work Planner

6.6.1 Review the proposed work package changes with the FLM and RM.

6.6.2 **If** the proposed changes are needed because of work scope change **or** to address unanticipated hazard, **then** assemble planning team members to identify any new hazards according to CP3-HS-2004.

6.6.3 **If** implementing a Type 2 Work Instruction, **then** evaluate if the SI requires revision.

6.6.4 **If** the revision requires documenting new hazards and controls, **then** identify the additional controls that will be needed to implement the revised work package. Chg B

JHA Preparer

6.6.5 **If** new controls are identified, **then** revise the associated JHA, **or** create a new JHA according to CP3-HS-2004.

Work Planner

6.6.6 Using the master/native file for the work package being revised, draft the desired revisions according to CP5-SM-1006, *Activity Level Work Control Document's Writer's Guide*.

6.6.7 **If** applicable, **then** incorporate any new hazards and hazard controls.

6.6.8 Send a draft copy out for review, comment, and/or approval by planning team members in accordance with Appendix C, *Reviewer Determination Matrix*.

6.6.9 **If** the revision requires new or additional materials, **then** document known materials and parts that must be procured or that are available for the work on CP3-SM-1101-F11, *Work Order Materials/Parts Worksheet*.

6.6.10 **If** applicable, **then** initiate procurement of materials according to CP5-SM-1002, *Procurement Planning Process Guidelines*. Chg C

6.6.11 Resolve any comments from reviewers **and,** if necessary, invoke Planning Manager assistance according to Step **6.2.13**.

6.6.12 **When** all comments are resolved and the draft is ready, **then** assemble the Work Package revision **and** request the execution team complete a pre-work confirmation of revision adequacy.

6.6.13 **If** a JHA revision was required, **then** ensure the revision has been finalized.

6.6.14 Obtain revision concurrence from affected users and reviewers **and** document this concurrence in the work package status log (CP3-SM-1101-F04 or CP3-SM-1101-F13, as appropriate).

6.6.15 **If** necessary, **then** coordinate **and** complete HRRB review.

USQ Preparer/Reviewer

6.6.16 Review the Work Package based on the applicable safety basis documents and controls.

6.6.17 Determine whether the Work Package activity requires USQ documentation.

6.6.18 **If** a determination is made that the revision is addressed by the original evaluation, **then** document this conclusion in the work package status log CP3-SM-1101-F04 or CP3-SM-1101-F13.

Responsible Manager

6.6.19 Review the work package revision for completeness.

6.6.20 Approve the work package revision.

Planner

6.6.21 Save concurrence emails in work instruction development file.

6.6.22 **If** the revised work instruction was assigned a controlled number, **then** submit the approved revised work instruction to Document Control according to CP3-OP-0025.

Responsible Manager

6.6.23 Ensure start work approval intial and dates have been attained for revision.

6.6.24 Route to the work execution team Supervisor. Chg B

Planner

6.6.25 Submit the revised Work Package's history package to Records Management according to CP3-RD-0010.

7.0 RECORDS

7.1 Records Generated

The following records may be generated by this procedure:

- CP3-SM-1101-F01, *Work Screening Worksheet*
- CP3-SM-1101-F02, *Type 3 Work Instruction*
- CP3-SM-1101-F06, *Episode Sheet*
- CP3-SM-1101-F07, *Planning Work Team Meeting Roster*
- CP3-SM-1101-F11, *Work Order Materials/Parts Worksheet*
- CP3-SM-1101-F15, *High Hazard Review Board Form*
- CP3-SM-1101-F16, *Type 1 Work Instruction*

- CP3-SM-1101-F17, *Work Order Attachments*
- CP3-SM-1101-F18, *Type 2 Work Instruction*

Forms are to be completed in accordance with CP3-OP-0024, *Forms Control*.

7.2 Records Disposition

The records are to be maintained in accordance with CP3-RD-0010, *Records Management Process*.

Appendix A – Acronyms/Definitions

ACRONYMS

ALW – Activity Level Work

CMMS – Computerized Maintenance Management System

DIVS – Design Installation and Verification Specifications

DOE – U.S. Department of Energy

DSA – Documented Safety Analysis

D&R – Deactivation & Remediation

ESS&Q – Health, Safety, Security, and Quality

FCT – Facility Change Traveler

FM – Facility Manager

GFSI – Government Furnished Services or Items

HASP- Health and Safety Plan

HHRB – High Hazard Review Board

IHWP – Industrial Hygiene Work Permit Chg B

ISMS – Integrated Safety Management System

JHA – Job Hazard Analysis

LCO – Limiting Conditions for Operation

LOTO – Lockout/Tagout

NCS – Nuclear Criticality Safety

NFM – Nuclear Facility Manager

NNSS – Nevada National Security Site

NS – Nuclear Safety

PGDP – Paducah Gaseous Diffusion Plant

PM – Preventive Maintenance

POD – Plan of the Day

Appendix A – Acronyms/Definitions (continued)

POW – Plan of the Week

PPE – Personal Protective Equipment

RCRA – Resource Conservation and Recovery Act

S&D – Stabilization and Deactivation

S&H – Safety and Health

SI – Standard Instruction Chg B

SME – Subject Matter Expert

SSC – Structure, System, or Component

S&M – Surveillance and Maintenance

RM – Responsible Manager

TSCA – Toxic Substances Control Act

TSR – Technical Safety Requirement

USQ – Unreviewed Safety Question

USQD – Unreviewed Safety Question Determination

WPC – Work Planning and Control

WPCC – Work Package Control Center

DEFINITIONS

Activity Level Work – Any task, process, or work step performed where hazards are present; are introduced by the work; or are introduced by the work environment (regardless of who is performing the work or the organization with which they are affiliated). The hazards involved could be potentially adverse to worker health and safety, the public, the environment, or safeguards or security.

Change – A change to an Work Package that doesn't meet the criteria for a revision, defined in Section 6.5 of CP3-SM-1102, *Work Execution and Closeout*.

Complexity – A qualitative evaluation of a task or process based on capabilities, competencies and experience of the performers, defined performance expectations, potential consequence of deviation in method or sequence of performance, and proximity to other operations.

Appendix A – Acronyms/Definitions (continued)

Episode Work Package – For tasks that may be performed repetitively, Work Packages or procedures, routinely required for work activities may be incorporated into an Episode Work Package. These Work Packages are developed by the Work Planner and used to eliminate the need for redundant planning of repetitive tasks or work scopes. CP3-SM-1101-F06, *Episode Sheet, or an Episode Task Work Order* is utilized to document work start authorization and close out for each specific episode. Episode Work Packages are reviewed out at least each calendar year for continued use. Episode Work Packages are developed for work orders coded in the CMMS as EPISOD under the Urgency Field. Chg C

Excluded Work – Work that is excluded from the requirements of the Work Planning and Control Program. Specific exclusions are defined in Appendix B.

Execution Team or Work Execution Team – All personnel identified by the Supervisor who will perform the work activities specified in the Work Package. The execution team consists of a Supervisor, Craft Workers, and functional project support personnel (RADCON, Health & Safety, etc.) who will directly support the work in the field during execution.

Facility Manager (FM) – An individual possessing the required education, training, experience, and qualifications who has been authorized by PGDP D&R Management to oversee all activities performed in a facility(s) and verifies consistent performance in a safe manner and within the safety basis of the facility. Facility Managers are directly accountable for the safe execution of activities within their facilities.

Supervisor – An employee assigned the responsibility of ensuring the workers have a clear understanding of a defined work scope and work requirements in accordance with the approved work control documents. This individual is the primary medium of communication between the Planning Team and the Execution Team.

Graded Approach – The process of ensuring that the level of analysis, documentation, and actions used to comply with a requirement are commensurate with: (1) the relative importance to safety, safeguards, and security; (2) the magnitude of any hazard involved; (3) the lifecycle stage of a facility; (4) the programmatic mission of a facility; (5) the particular characteristics of a facility; (6) the relative importance of radiological and non-radiological hazards; and (7) any other relevant factor.

Hazard – Any source of danger (i.e., material, energy source, or operation) with the potential to cause illness, injury, or death to a person (workers or the public), or damage to a facility, or to the environment (without regard to the likelihood or credibility of accident scenarios or consequence mitigation). Evaluation and analysis of hazard for work can be divided into two primary components, general JHA, which defines hazards and controls based on the work location and environment, and activity-specific JHA, which defines hazards and controls based on the work steps that must be performed to complete the task.

Hazard Controls – Specifically tailored or identified controls that are established, or verified to be in place, to eliminate, or mitigate a hazard associated with ALW. Hazard controls may be passive or active and may include engineering or administrative controls, or, if necessary, the use of personal protective equipment.

Hazardous Waste Operations and Emergency Response – Work activities meeting the definition of "Hazardous Waste Operations" in accordance with 29 CFR 1910.120 or 29 CFR 1926.65.

HHRB – A board that provides independent management review of hazardous work through the evaluation of relevant Work Packages and interviews with personnel overseeing the work.

High Risk Work – ALW that is graded HIGH risk, using the grading system defined in Appendix D.

Hold Points – Work instruction steps in the Work Package at which the worker must wait for another person to do something or for some other event to occur to ensure protection of workers, facilities or the environment. Examples include radiological protection surveys, quality assurance inspections and industrial hygiene samples.

Appendix A – Acronyms/Definitions (continued)

Job Hazards Analysis (JHA) – A documented analysis for specific activity-level work; identifies health and safety hazards specific to a process, work step or work environment/location and defines controls to eliminate or mitigate hazards to protect personnel and the environment.

JHA Preparer – An individual assigned by supervision who is trained in the use of the Job Hazard Analyses web-based software, and who creates (prepares) a JHA. The software term applied to this individual is "Author." Chg B

Low Risk Work – ALW that is graded LOW risk using the grading system defined by Appendix D.

Moderate Risk Work – ALW that is graded MODERATE risk using the grading system defined in Appendix D.

Nuclear Safety (NS) – The PGDP D&R functional group that is responsible to establish and maintain Safety Basis requirements for each facility and to verify that planned work or work documents will not violate Safety Basis requirements.

Operable/Operability – A system, subsystem, train, component, or device shall be operable when it is capable of performing its specified function(s); and when all necessary attendant instrumentation, controls, electrical power, cooling or seal water, lubrication, or other auxiliary equipment that are required for the system, subsystem, train, component, or device to perform its specified function(s) also are capable of performing their related support function(s). The operability of a system, subsystem, component, or device shall be verified by performing surveillance requirements (SRs) at the identified frequency.

Planning Team – A subset of the reviewers identified during the screening process, as determined by the Planning Manager, who are required to be present during walkdowns and hazard and control identification.

Plan of the Day (POD) – The authorized work activities for a specific work day or shift including any emergent work activities. Plan of the day is managed and determined by the Work Scheduler.

Plan of the Week (POW) – Schedule of planned work activities to be performed in the execution work week.

Priority – The level of urgency assigned to screening, scheduling, planning, and completing work scopes or tasks based on the critical nature of the affected structures, systems, or components and the potential for impact to safe operations.

Procedure – A performance document that provides a defined and user-friendly process, including all necessary work steps, with sufficient detail to allow the user to safely and compliantly achieve an anticipated end-state or other pre-established goal or result.

Quality Assurance – The PGDP D&R functional area that is responsible for incorporating the Quality Assurance requirements specified in applicable standards and procedures into the work planning process including the establishment of applicable quality objectives and performance measures.

Quality Level – The level of rigor and controls to be imposed on items and activities based on the proposed use of an item, or the consequences of failure or an item or activity to achieving an outcome. Quality Levels (QL-1 through QL-4) are defined in CP3-EN-0400, *Quality Level Determination*. Chg A

Regulatory Compliance – The PGDP D&R functional area that is responsible for defining applicable environmental regulations and standards, and to define requirements for implementation of the Environmental Management System and controls during the work planning process. This includes the establishment of applicable environmental compliance performance measures.

Appendix A – Acronyms/Definitions (continued)

Responsible Manager – A manager who is assigned and granted the responsibilities and accountability to appropriately control fieldwork based on individual experience and demonstrated performance commensurate with the role and responsibilities. This function is responsible for the adequate planning/readiness of activities performed by their personnel. They are accountable to the Planning &Optimization Manager for understanding/proper execution of the WPC process.

Reviewers – The group of individuals, as determined by the level of risk, who ensure all PGDP D&R contract, programmatic and procedural requirements, quality standards, and operational efficiencies derived from the training and experience of the workforce, along with the principles and functions of ISMS, are incorporated into the work control required to complete that work scope.

Revision – A change to a Work Instruction that requires full review by the planning team.

Safety Significant Structure, System, or Component – SSCs which are not designated as safety class SSCs but whose preventive or mitigating function is a major contributor to defense in depth and/or worker safety as determined from safety analyses.

Screening – The process of reviewing a work scope to determine the planning requirements including planning participation requirements, level of rigor, and corrective maintenance urgency.

Stop Work – Declared formal suspension of a work activity if a situation poses an imminent danger to the safety of workers, public, stakeholders, visitors, other site tenants, or the environment.

Structure, System, or Component (SSC) – Physical items designed, built, or installed to support the operation of the facility. A structure is an element or a collection of elements to provide support or enclosure such as a building, freestanding tank, basin, dike, or stack. A system is a collection of components assembled to perform a function such as piping; cable trays; conduits; or heating, ventilation, and air conditioning. A component is an item of equipment such as a pump, valve, or relay or an element of a larger array such as a length of pipe, elbow, or reducer.

Subcontracted Work – ALW that is managed and/or performed by another company for PGDP D&R contractor under a defined subcontract. Specific work planning and control requirements are defined under the terms and conditions of the subcontract documents but must be substantially equivalent to the requirements of PGDP D&R contractor processes.

Subject Matter Expert – A person assigned to a system, program, project, discipline, equipment, or other topic, who has comprehensive knowledge and relevant expertise based on qualification, training, experience, and/or education. His/her responsibilities include serving as the authority for development and/or interpretation of performance documents within his/her subject matter area.

Task or Process – A sequence of work steps that have identifiable starting conditions and, if correctly performed, will achieve a specified endpoint result. Processes are the "building blocks" for completing activities.

Type 1 Work Package – For HIGH risk work scopes, an assembly of work control documents, specifically in the form of Work Instructions and identified procedures developed to define the technical requirements, instructions, controls, and acceptance criteria necessary to ensure the safe and successful completion of an identified work scope.

Type 1 Work Instruction – An instruction included as part of a Type 1 Work Package that provides detailed work instruction for HIGH (Type 1) risk work activities.

Type 2 Work Package – ALW control documentation prepared by a Work Planner for a specific task or process for MODERATE risk work activities. Type 2: Work Packages are prepared by the planner with input/feedback from the appropriate craft performance and Subject Matter Experts.

Appendix A – Acronyms/Definitions (continued)

Type 2 Work Instruction - An instruction included as part of a limited use work instruction package that provides general instruction for skilled craftspeople for MODERATE (Type 2) risk work activities.

Type 3 Work Package – ALW control documentation prepared by a Work Planner for a specific work activity of no greater than LOW risk. Type 3 Work Packages are prepared by the planner/supervisor with input/feedback from the appropriate craft performance team and RM. Chg C

Type 3 Work Instruction – Type 3 Work Instructions are work tasks that are recognized to be LOW risk from hazards when performed in a stable work environment (where location-specific hazards are expected to remain unchanged during work performance) by skilled craftspeople. Specific criteria for Type 3: Work Instructions are defined in Appendix H of CP3-SM-1101.

Type 4 Work Package – A Type 4 Work Package is prepared by a Work Planner for a specific task or process that will be performed using approved procedures. Type 4 Work Packages are assembled by the planner with input/feedback from the appropriate craft. Chg A

Validation – The act of reviewing a Work Instruction to determine usability and correctness. This review evaluates whether the Work Instruction provides sufficient and understandable direction to the worker and is compatible with the equipment or system being maintained. This generally entails a walk down or table top review.

Work Package – The assembled Work Instruction and ancillary documentation to perform ALW. This includes Type 1, 2, 3, or 4 Work Packages.

Waste Operations – The PGDP D&R functional area responsible for incorporating applicable waste operations and hazardous materials transportation requirements into work control documents. Specific Waste Operations functions may include establishing waste identification, characterization, packaging, manifesting, transportation, and disposition requirements based on the wastes being generated by the work scope. Chg A

Work Order (WO) – A unique number assigned to all work tasks entered into the CMMS. This number identifies the work task and is used to track tasks from initiation to closeout within the CMMS.

Work Pause – A request by any employee for a pause in the work activity, including clarification or resolution on a potential problem, concern, or issue. Work is resumed upon satisfactory resolution of the identified issue.

Work Scope – A defined project or group of work activities that must be performed to meet a defined end state or the sum total of all information needed for a clear understanding to achieve a defined end state.

Appendix B – Activities Excluded from the Work Planning Process

Some activities graded as low complexity and low hazard are "excluded" from WPC processes. These "exclusions" are low risk activities involving minimal potential for exposure to hazardous contaminants and health and safety hazards. Exclusions must meet the requirements for Low Complexity and Low Risk as defined in Appendix D.

Exclusions may be performed as ancillary tasks associated with higher hazard work activities, provided the established hazard controls are adequate to protect workers performing the excluded activity and performance of the activity does not introduce additional hazards. Specific work activities that are within the scope of any approved Work Instruction, including performance documents designated for use as Work Instruction, may not be performed under an exclusion. In accordance with CP3-OP-0207, *Use of Procedures*, all such activities must be performed as specified in the applicable procedures or other Work Instructions.

Excluded activities include the following:

1. Delivery, pickup, or movement, including vendor deliveries, of supplies, materials, or equipment by an authorized subcontractor or vendor.

2. Administrative activities such as attendance of meetings, work planning, report writing, training, recordkeeping, accounting, filing, or other similar work activities normally conducted in an office environment.

3. Operation and onsite minor maintenance/repair of office-associated machines and equipment (for example, copiers, printers, personal computers, vending machines) and arrangement of office furnishings.

4. Operation of golf and/or utility carts, passenger vehicles, trucks and other highway conveyance for general site use or for transport of packaged materials or nonhazardous commodities.

5. Operation of emergency equipment and vehicles, and, within the confines of the DOE Paducah reservation, operation of utility support vehicles by qualified plant personnel as necessary to maintain utilities.

6. Operation of powered industrial trucks or tracked material handlers (for example, "Bobcat" type handlers) by qualified operators for routine material handling operations.

7. Operation of scissors or aerial lifts by qualified operaters for routine operations.

8. Operation of industrial equipment (wheeled or tracked) by qualified operators for relocation of equipment between work sites but does not include any hoisting, rigging, lifting, or excavation activities.

9. Manual material handling of materials and items that do not present an industrial hygiene or radiological exposure hazard to material handlers.

10. Battery charging and load testing of nickel cadmium, lithium-ion, nickel metal hydride, or other sealed batteries and power tools, communication equipment or other devices containing these types of batteries.

11. Performance of activities required to maintain general housekeeping and sanitation in managed areas that do not require any hazard-associated administrative access controls or job-specific permits for entry.

Appendix B – Activities Excluded from the Work Planning Process (continued)

12. Janitorial activities (including routine servicing of portable toilet facilities).

13. Handling nonhazardous sanitary or industrial trash/refuse.

14. Animal/Insect control.

15. Civil surveying.

16. Assembly of items received unassembled or partially assembled. QL-2 tiems are not included.

17. Routine environmental monitoring/sampling/surveys and inspections. This does **NOT** include sampling for characterization of systems/facilities for S&D activities and/or waste characterization.

18. Use of portable ladders within the controls and requirements of CP3-HS-2011, *Portable Ladders*, to perform excluded work activities.

19. Training activities conducted in a controlled training environment or training laboratory setting. The work must be performed within the requirements of the CP2-TR-0100, *Training Program*, under the supervision of a qualified trainer.

20. Tours, inspections, and site visits conducted in areas of the site where the participants are trained, or are under the direct control of a worker with sufficient training, to follow posting requirements, properly interpret and respond to plant alarms, and follow instructions issued by safety, radiological control (RADCON), or emergency response personnel.

21. Reset fire alarm panels by Fire Protection Personnel.

22. Routine relamping.

23. Shop fabrications and repairs, excluding those requiring the use of hotwork. QL-2 items are not included. Chg A

24. Vehicle and equipment fueling, inspection, maintenance, and basic repairs.

25. Warehouse operations.

26. Maintenance and testing of emergency safety lights, exit signs, and portable safety eyewash/shower units.

27. Resetting of electrical breakers within the requirements of CP3-SM-0019, *Electrical Safety Guidlines*. Chg C

28. Work performed in maintenance shops that does **NOT**:

- affect installed plant equipment,
- require the issuance of a permit (e.g., RWP, IHWP, hotwork, etc.),
- require adherence to NCS controls,
- have the potential to expose the worker to hazardous chemicals requiring the use of PPE.

Appendix B – Activities Excluded from the Work Planning Process (continued)

29. Routine indoor plumbing work on items such as toilets, sinks, showers, etc. that does **NOT** include exposure to sewage **or** require the issuance of a permit (e.g., RWP, IHWP, hotwork, TEP, etc.).

30. Routine carpentry work on items such as decks, stairs, trailers, etc. that does **NOT** require the issuance of a permit (e.g., RWP, IHWP, hotwork, TEP, etc.)

31. Emergency response actions performed as immediate response or supplemental response to an emergency condition. This includes actions identified in emergency action plans, emergency response plans, or other approved contingency plans.

32. Resetting of PGDP Elevator Controls within the requirements of CP3-SM-0019, *Electrical Safety Guidlines* . Chg C

Chg A

Appendix C – Reviewer Determination Matrix

Use the matrix below to determine the minimum requirements for work planning team review in the development of Work Instructions. More than one criterion may apply to a work task.

Review Criteria	Reviewers														
	Safety & Health	S&D/ System Engineering	Facility Manager	NFM *	Radiological Control	Waste Operations	Waste Cert. Official	Regulatory Compliance	NCS	NS	Safeguards & Security	NMC&A	Quality	Character-ization	Craft
All Work Tasks	X		X					X							X
All Type 1: Work Instructions Involving the isolation, breaching, or downsizing of Process Gas systems.		X			X				X	X			X		
Work Tasks on systems or processes that are QL-1, QL-2 or QL-3		X							X	X			X		
Work Tasks in Nuclear Facilities									X	X		X		X	
Facility Change Travelers and/or Modifications		X							X	X				X	
Work on or work impacting a Safety Significant SSC		X		X					X	X			X	X	
Work Tasks that involve potential exposure to radiological contaminants					X										
Work Tasks that include the disposition of Hazardous (RCRA or TSCA), Radioactive, or Mixed (Hazardous/Radioactive) Waste						X								X	
Work Tasks that include packaging and/or transportation of Hazardous Materials						X								X	
Work Tasks that include packaging, transport, or disposition of waste under NNSS certification requirements.						X	X					X		X	
Work Tasks that require interface with, or approval of, regulatory agencies.														X	
Work Tasks that includes handling or management of fissile material.									X	X		X		X	
Work Tasks that require NCS controls be established during work execution.									X	X					
Work Tasks that Involve Accountable Nuclear Material									X	X		X		X	
Work Tasks in Areas of Security Interest or that could result in compromise of classified information if not properly controlled.											X				
Work on Fire Protection Systems and any system containing flammable fluids.		X													
All work activities in a SWMU															

"X" designates a participant or reviewer. * NFM may review TIs that affect multiple facilities for the FM.

See Appendix E for reviewer responsibilities.

Appendix D – Work Planning Rigor Based on Performance Risk

NOTE:

- Process gas system deactivation and dismantling will be performed with a Type I Work Package.
-

WORK PACKAGE TYPE DETERMINATION

RISK			
High	**Type 1: Work Package**	**Type 1: Work Package**	**Type 1: Work Package**
Moderate	**Type 3: Work Package**	**Type 2: Work Package**	**Type 1: Work Package**
Low	**Type 3: Work Package**	**Type 2: Work Package**	**Type 2: Work Package**
	Low	**Moderate**	**High**
		COMPLEXITY	

<u>Complexity</u>: For evaluating complexity as a component of performance risk, the following grading system is used:

If the answer to any of the following questions is "yes", then the activity is high complexity.

- Are some of the work activities beyond the established competencies, functional training, or experience of the workforce?
- Will the work scope require involving multiple integrated work activities to be performed at the same time in different facilities or work locations?
- Will a deviation in sequence or method of performance be likely to result in the failure to achieve desired results.
- Will the job require significant supervisory oversight and technical support to be present at the job site at least 90% of the time?

If the answer to all of the above questions is "no" and the answer to any of the following questions is "yes", then the activity is moderate complexity.

NOTE:

Minor changes, such as those accomplished with facility change travelers, to facilities and/or systems that meet the criteria of a low complexity activity may be performed through the use of a type 3 Work Package.

- Is the activity a facility or system modification that must be accomplished through the nuclear modification process?
- Does the work scope require sequencing multiple work crews and/or activities?
- Will deviation in sequence or method of performance potentially result in a failure to achieve desired results?
- Does the work scope require active supervisory oversight or technical support to be present at the job site at least 50% of the time?

Appendix D – Work Planning Rigor Based on Performance Risk (continued)

- Do the work activities implement the requirements of a Nuclear Criticality Safety Evaluation in accordance with CP3-NS-1031, *Nuclear Criticality Safety Program*?
- Do the work activities potentially affect the performance, configuration, or operability of a safety significant SSC, as defined by the Documented Safety Analysis (DSA)?

If the answer to all of the above questions is "no" and the answer to any of the following questions is "yes", then the activity is low complexity.

- Are the activities within the functional training, qualifications, and established competencies of the workforce performing the activity?
- Are the activities routine and well understood by the workforce performing the activity?
- Does the work scope require little or no supervisory oversight or technical support to be present less than 50% time at the job site?
- Will standards of good workmanship and craft skill be relied upon to define method and sequence of performance to achieve desired results?
- Will deviation in sequence or method of performance not impact the desired result?
- Are the activities within the functional training, qualifications, and established competencies of the workforce performing the activity?

Risk: For evaluating risk to workers and/or the environment as a component of performance risk, the following grading system is used.

If the answer to any of the following questions is "yes", then the activity is high risk.

- Will the work be performed in uncharacterized work locations or on uncharacterized systems where exposure potential to radiological or chemical hazards is not well understood or cannot be bounded based on available data or process knowledge?
- For characterized work locations or systems, are any of the following are applicable?
  - **1)** The work environment is immediately dangerous to life or health.
  - **2)** In the event of the failure of a single mitigating hazard control, the worker will be exposed to chemical or radiological hazards or contaminants above allowable exposure limits before the worker can exit the work location.
  - **3)** In the event of the failure of any single hazard control the worker will sustain serious or fatal injury from physical hazards before the worker has the opportunity to take action or respond.
  - **4)** Potential for environmental impact is high based on the contaminants present and the work contemplated.
  - **5)** The work is a deactivation activity involving a process gas system.

Appendix D – Work Planning Rigor Based on Performance Risk (continued)

NOTE:

Use of "hot-stick" testing methods of potentially energized systems, regardless of voltage, by qualified personnel, such as electrical maintenance is considered level 3 if the following is true:

- Work is performed from a non-conducting work surface.
- Worker will not be inside the restricted approach boundary of either the system being tested or any other energized systems.

- Will a qualified worker, such as electrical maintenance, be working on or near (within the restricted approach boundary) energized systems above 600 volts?
- Will an unqualified worker, such as maintenance mechanics or operators, be working on or near (within the limited approach boundary) energized systems above 600 volts?

If the answer to all of the above questions is “no” and the answer to any of the following questions is “yes”, then the activity is moderate risk.

NOTE:

- Moderate risk tasks generally include work in areas requiring job specific radiological work permits or other administrative controls to limit access due to the presence of chemicals or radiological contamination.
- Any work activities requiring respiratory protection is at least moderate risk.

Chg B

- Does the work scope present hazard potentials that are greater than the general site hazards (reference site wide JHA), but the hazards are characterized, well understood, controllable, and not likely to cause serious or fatal injury with appropriate controls in place such as, engineering or administrative controls, or by appropriate use of personal protective equipment (PPE)?
- Is the potential for exposure to hazardous chemicals, radiological constituents, or physical contaminants such as asbestos, within established exposure limits and/or administrative control levels?
- Will the worker have the opportunity to take action or respond in the event of the failure of a single hazard control that is protecting the worker from sustaining serious or fatal injury from physical hazards?
- Will a qualified worker, such as electrical maintenance, be working on or near (within the restricted approach boundary) energized systems from 51 volts to 600 volts, beyond testing, troubleshooting, voltage measuring, etc?
- Will an unqualified worker, such as maintenance mechanics or operators, be working on or near (within the limited approach boundary) energized systems from 51 volts to 600 volts?
- Will a qualified worker, such as electrical maintenance, be working on or near (within the limited approach boundary) energized systems above 600 volts?
- For radiological or chemical work, will the worker be able to exit the work location prior to being exposed to chemical or radiological hazards or contaminants above the allowable exposure limits in the event of the failure of a single mitigating hazard control?
- Moderate hazard tasks generally include work in areas requiring job specific radiological work permits or other administrative controls to limit access due to the presence of chemical contaminants or radiological contamination.

Appendix D – Work Planning Rigor Based on Performance Risk (continued)

If the answer to all of the above questions is "no" and the answer to any of the following questions is "yes", then the activity is low risk.

NOTE: Low risk tasks generally include work in office facilities or other areas of the plant that are posted for control of low-level radiation hazards (where workers are unlikely to be exposed to radiological or chemical contamination).

- Are the hazards are limited to those present in an industrial or construction work environment as defined in the site or facility general safety requirements and associated general hazard analysis?
- Is the potential for exposure to hazardous chemical or radiological constituents is low and further limited by administrative site controls including hazard communication, postings or general radiological work permits?
- Will a qualified worker, such as Electrical Maintenance, be conducting testing, troubleshooting, voltage measuring, etc., of potentially energized systems up to 600 volts where the hazards are controlled through safe work practices and PPE?
- Will a qualified worker, such as Electrical Maintenance, be working on energized electrical systems where the voltage is no greater than 50 volts?
- Will a qualified worker, such as Electrical Maintenance, be working on a de-energized electrical system that has been either airgapped or is on LOTO (single source or permitted)?
- Will an unqualified worker, such as maintenance mechanics or operators, be working on a de-energized electrical system that has been airgapped and verified, or a zero energy check has been performed by a qualified person, such as electrical maintenance in the presence of the unqualified worker?
- Will a qualified worker be exposed to live parts of an electrical circuit with a potential of greater than 50 volts, excluding the testing of energized electrical circuits no greater than 600 volts or work on energized electrical equipment from a non-conducting work surface using properly inspected non-conducting "hot-stick" equipment?

Appendix E – Reviewer Requirements

NOTE:

All reviewers should review Work Packages in the context that it will be performed as written. The objective of the Work Package is to provide instructions that when executed as written, the worker should have no fear of violation.

Safety and Health:

- Scope of work is clear,
- Hazards understood, and controls are adequate to safely perform work,
- Required permits are identified and available **or** planned for/referenced.
- Determine when Industrial Hygiene monitoring, is required.
- Verify Hold Points for critical steps are included

Engineering:

- Technical content of instructions are consistent with appropriate contract and industry engineering standards.
- Review to ensure configuration management is applied on a graded approach.
- Ensure Quality Assurance (QA) hold points are identified and incorporated into appropriate steps.
- Ensure adequacy of PMT steps and acceptance criteria, as applicable.
- Relevant drawings are included.
- Changes and/or modifications are properly planned.

Facility Manager:

- Reviews Work Packages to ensure that the work can be performed within the facility safety basis,
- Actions required to maintain the safety envelope are understood,
- Necessary limiting conditions for operation (LCO) are identified,
- Prerequisites needed to perform the work are identified in the package.

Nuclear Facility Manager:

- Reviews Work Packages to ensure that the work that affects the operability of a safety significant SSC to ensure that appropriate compensatory measures are/will be in place at the time of execution.
- Reviews Work Packages to ensure that any startup or restart of a HC-2 or HC-3 nuclear facility, operation, or activity has achieved readiness, in accordance with CP2-OP-1119, *Readiness Review Program at the Paducah Gaseous Diffusion Plant, Paducah Kentucky.* Chg A

Radiological Control:

- Reviews Work Packages to ensure that the work is performed in a manner consistent with ALARA,
- Required permits are identified and available **or** planned for/referenced.
- Determine when RADCON monitoring/surveying, is required.

Waste Operations: Chg A

- Review for appropriate regulatory compliance regarding waste and transportation.
- Ensure work that involves hazardous/radioactive/mixed waste includes appropriate steps to assure compliance.
- Ensure level of detail in instructions involving waste generation, handling, packaging, and/or movement is adequate.

Appendix E – Reviewer Requirements (continued)

Waste Certification Official:

- Reviews Work Packages to ensure that the work is compliant with NNSS certification requirements

Chg C

Regulatory Compliance:

- Reviews Work Packages to ensure that the work is compliant with all regulatory requirements,
- Appropriate regulatory interfaces and reporting requirements are identified,
- Prerequisites needed to perform the work are identified in the package.

Nuclear Criticality Safety:

- Reviews Work Packages to ensure the proper handling of fissile material,
- NCS controls and commitments are properly identified.

Nuclear Safety:

- Review Work Package to ensure performance of surveillance requirements meet the intent of the facility TSR.
- Ensure work that may result in a configuration change does **NOT** conflict with facility DSA.
- Review to ensure safety significant, LCO, and/or facility impacts are understood.
- Review activities for impact on the safety basis, for USQ screening/determination.

NMC&A:

- Review Work Package to ensure that accountable nuclear material is properly handled.
- Review work scopes to be performed in an Fissile Control Area (FCA).
- Accountable nuclear material is properly transferred.

Quality:

- Review Work Package to ensure quality hold points are properly identified.
- Review Work Package to ensure the graded approach is being utilized per CP3-QA-1001, *Graded Approach.*

Characterization:

- Ensure adequate process knowledge exist to properly identify the characteristics associated with the item or system being dealt with and/or
- Determine when samples will be collected and/or radiological surveys will be performed to properly identify the characteristics associated with the item or system being dealt with.

Appendix F - Type 1 Work Package Development Checklist

Chg A

Work Package Number:	Revision Number:	
Work Planner:	Responsible Manager:	
Reviewers identified? ☐ Safety and Health ☐ Engineering ☐ Facility Manager ☐ NFM ☐ Radiological Control ☐ Waste Operations ☐ WCO ☐ Regulatory Compliance	☐ NCS ☐ NS ☐ Safeguards & Security ☐ NMC&A ☐ Quality ☐ Characterization ☐ Craft Representation ☐ Other _____	☐Yes
Planning Team identified? ☐ Safety and Health ☐ Engineering ☐ Facility Manager ☐ NFM ☐ Radiological Control ☐ Waste Operations ☐ WCO ☐ Regulatory Compliance	☐ NCS ☐ NS ☐ Safeguards & Security ☐ NMC&A ☐ Quality ☐ Characterization ☐ Craft Representation ☐ Other _____	☐Yes
Initial walkdown/tabletop complete?		☐Yes
HIC/JHA completed?		☐Yes
Lessons learned identified and incorporated?		☐Yes
Hazard controls incorporated?		☐Yes
Draft complete?		☐Yes
Comment resolved/addressed? ☐ Safety and Health ☐ Engineering ☐ Facility Manager ☐ NFM ☐ Radiological Control ☐ Waste Operations ☐ WCO ☐ Regulatory Compliance	☐ NCS ☐ NS ☐ Safeguards & Security ☐ NMC&A ☐ Quality ☐ Characterization ☐ Craft Representation ☐ Other _____	☐Yes
Execution team validation complete?		☐Yes
USQ complete?		☐Yes ☐N/A
HHRB Complete?		☐Yes
Work Package approved?		☐Yes
History package submitted to records?		☐Yes

Chg A

Appendix G–Type 2 Work Package Development Checklist

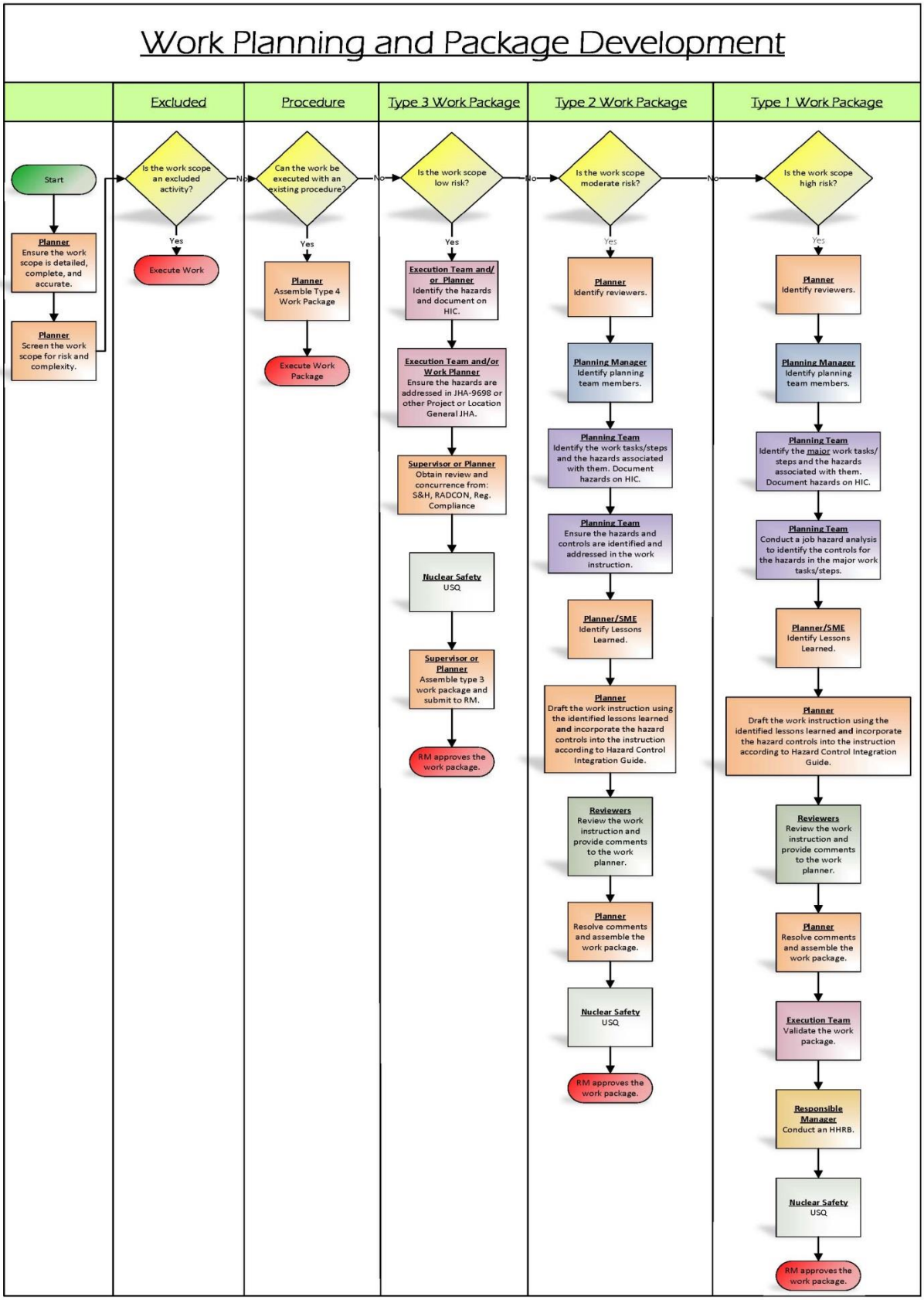
Work Package Number:	Revision Number:	
Work Planner:	Responsible Manager:	
If reusable type 2, number requested?		☐Yes ☐N/A
Reviewers identified? ☐ Safety and Health ☐ Engineering ☐ Facility Manager ☐ NFM ☐ Radiological Control ☐ Waste Operations ☐ WCO ☐ Regulatory Compliance	☐ NCS ☐ NS ☐ Safeguards & Security ☐ NMC&A ☐ Quality ☐ Characterization ☐ Craft Representation ☐ Other _____	☐Yes
Planning Team identified? ☐ Safety and Health ☐ Engineering ☐ Facility Manager ☐ NFM ☐ Radiological Control ☐ Waste Operations ☐ WCO ☐ Regulatory Compliance	☐ NCS ☐ NS ☐ Safeguards & Security ☐ NMC&A ☐ Quality ☐ Characterization ☐ Craft Representation ☐ Other _____	☐Yes
Initial walkdown/tabletop complete?		☐Yes
HIC completed?		☐Yes
For low risk work: General JHA completely addresses the hazards? General JHA mostly address the hazards and additional controls are in the work instruction? Hazards and controls are directly (only) on CP3-SM-1101-F18?		 ☐Yes ☐N/A ☐Yes ☐N/A ☐Yes ☐N/A
For moderate risk work: A task specific JHA is developed?		☐Yes ☐N/A
Lessons learned identified and incorporated?		☐Yes
Hazard controls incorporated?		☐Yes
Draft complete?		☐Yes
Comment resolved/addressed? ☐ Safety and Health ☐ Engineering ☐ Facility Manager ☐ NFM ☐ Radiological Control ☐ Waste Operations ☐ WCO ☐ Regulatory Compliance	☐ NCS ☐ NS ☐ Safeguards & Security ☐ NMC&A ☐ Quality ☐ Characterization ☐ Craft Representation ☐ Other _____	☐Yes
USQ complete?		☐Yes ☐N/A
Work Package approved?		☐Yes
If reusable type 1, instruction submitted to document control?		☐Yes ☐N/A
History package submitted to records?		☐Yes

Appendix H –Type 3 Work Package Development Checklist

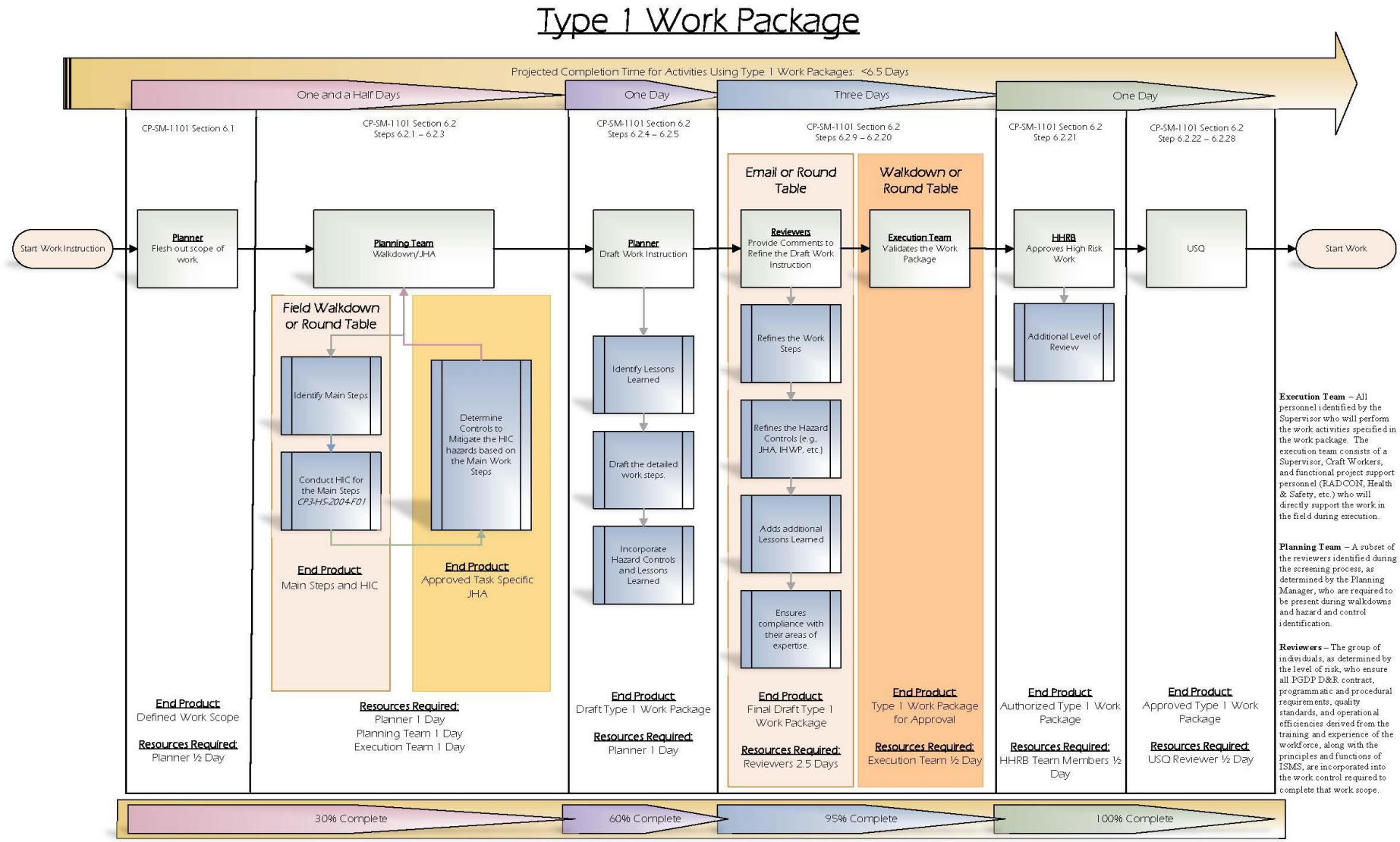
Work Package Number:	Revision Number:
Work Planner or Supervisor:	Responsible Manager:

Work scope determined?	☐Yes
HIC completed?	☐Yes
Hazards are addressed in a general JHA (Sitewide, Project, or Location) that the execution team is trained to?	☐Yes
Reviewer concurrence? ☐ Safety and Health ☐ Radiological Control ☐ Regulatory Compliance	☐Yes
USQ complete?	☐Yes ☐N/A
Work Package approved?	☐Yes

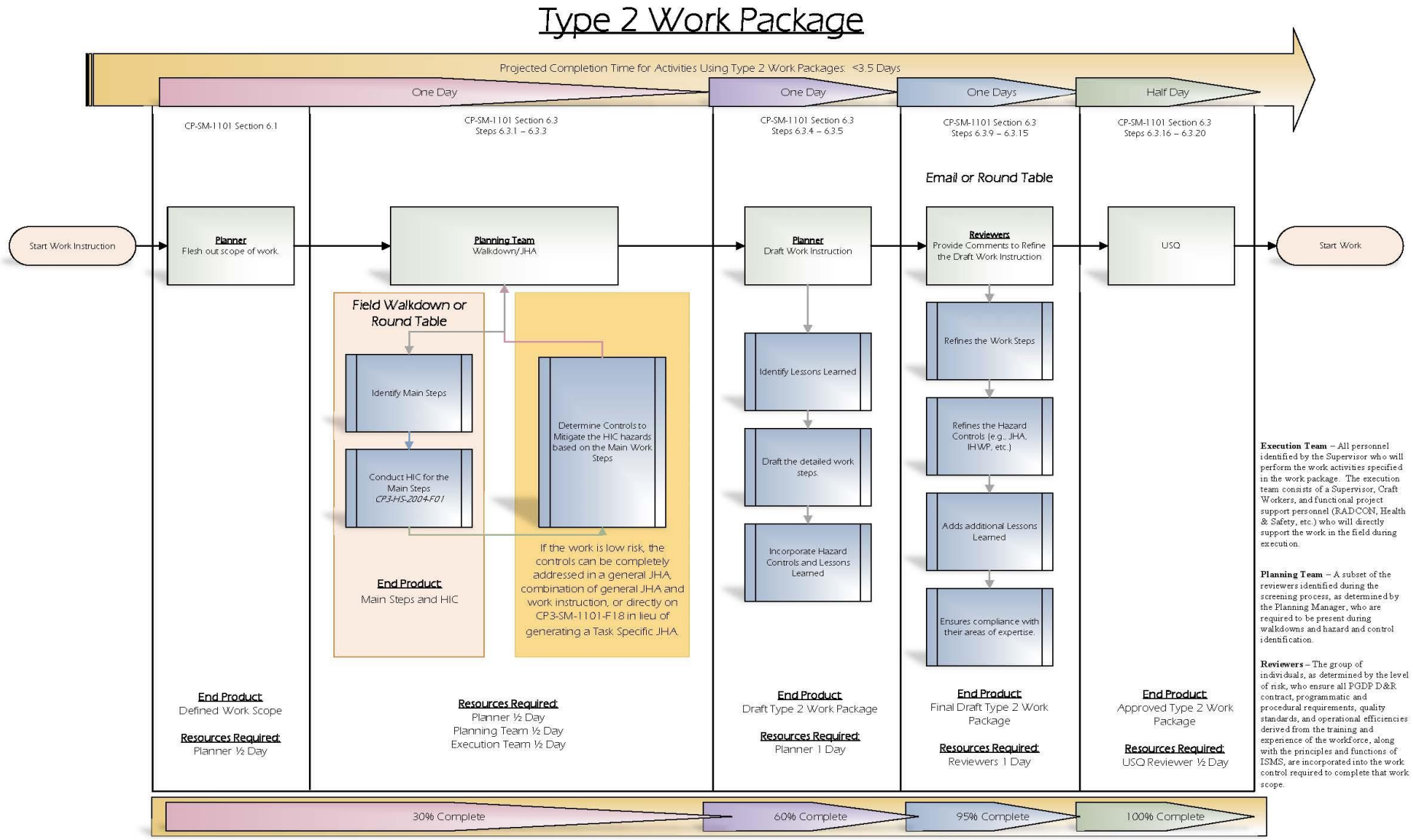
Appendix I – Planning Diagrams



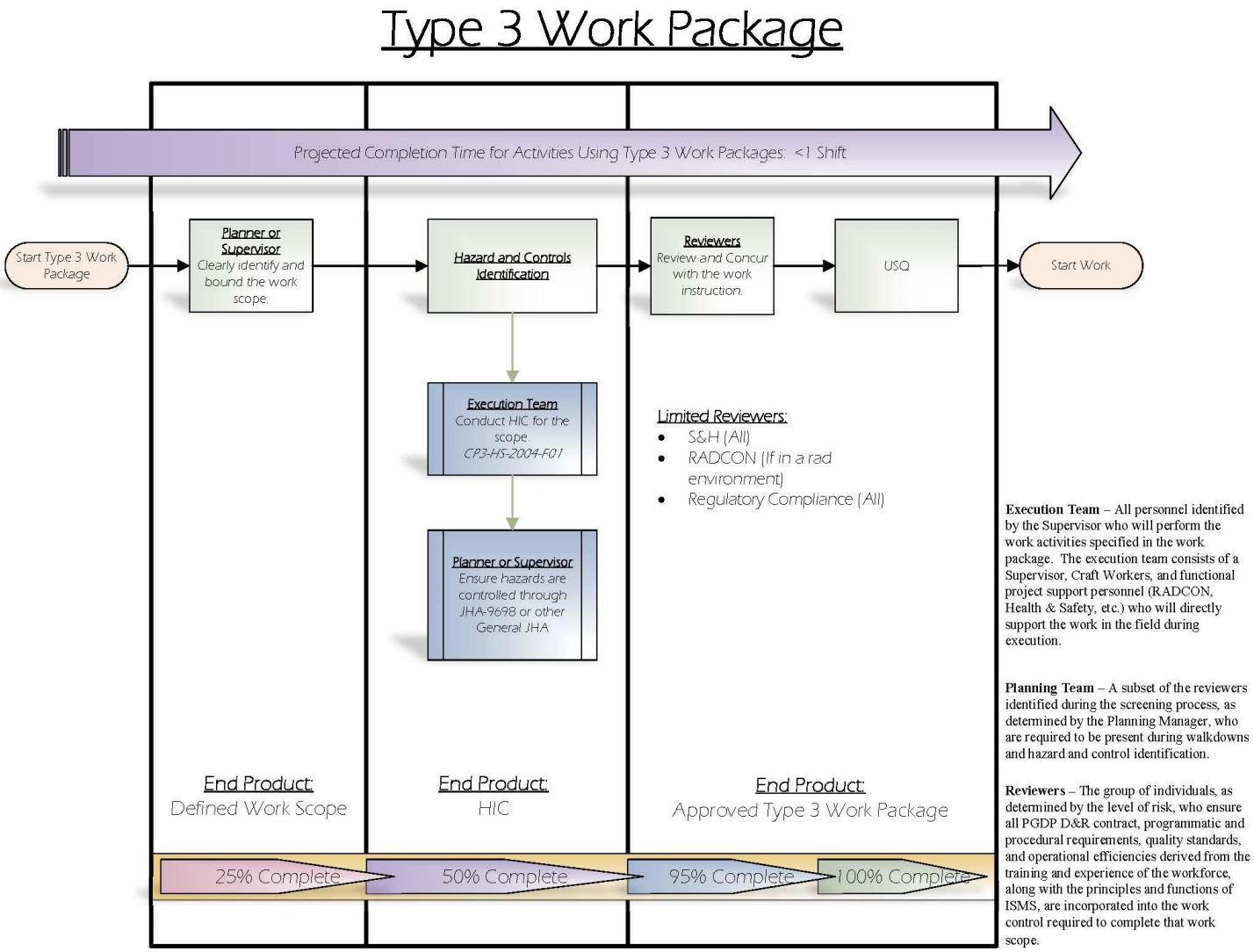
Appendix I – Planning Diagrams (Continued)



Appendix I – Planning Diagrams (Continued)



Appendix I – Planning Diagrams (Continued)



Execution Team – All personnel identified by the Supervisor who will perform the work activities specified in the work package. The execution team consists of a Supervisor, Craft Workers, and functional project support personnel (RADCON, Health & Safety, etc.) who will directly support the work in the field during execution.

Planning Team – A subset of the reviewers identified during the screening process, as determined by the Planning Manager, who are required to be present during walkdowns and hazard and control identification.

Reviewers – The group of individuals, as determined by the level of risk, who ensure all PGDP D&R contract, programmatic and procedural requirements, quality standards, and operational efficiencies derived from the training and experience of the workforce, along with the principles and functions of ISMS, are incorporated into the work control required to complete that work scope.