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CP3-QA-2004 FRev. 2	TITLE: Material Receipt Inspection	Page 1 of 13

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FUNCTIONAL AREA: Health, Safety, Security, and Quality (HSS&Q) **SUBJECT MATTER AREA:** Quality Assurance	**SUBJECT MATTER EXPERT:** Paul White, Quality Control Inspector Lead
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REVISION/CHANGE LOG

Revision/Change Letter	Description of Changes	Pages Affected	Date of Revision/Change
FR0	Blue Sheeted Version	All	10/20/2017
FR1	Incorporated Non-Intent Changes to move from Bluesheet	All	12/4/2017
FR2	Incorporate use of Post Installation Testing (PIT) Tags; change procedure to technical format; clarification regarding upgrade process	All	6/27/18

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1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure describes the *Four Rivers Nuclear Partnership (FRNP), LLC Paducah Gaseous Diffusion Plant (PGDP) Deactivation and Remediation (D&R)* process for receipt inspection (RI), storage of Level A-D, and storage of Quality Level (QL) 2 and QL 3 items. This procedure incorporates the criteria contained within CP2-QA-1000, *Quality Assurance Program Description,* and applicable portions of ASME NQA-1-2008 (with Addenda through 2009).

1.2 Scope

This procedure applies to the FRNP material receipt inspection process and all onsite FRNP and subcontractor employees, unless otherwise exempted by specific subcontract language.

2.0 REFERENCES

2.1 Use References

- CP3-PR-3001, *Warehouse Operations and Receipt of Material*
- CP3-QA-1006, *Suspect/Counterfeit Items*
- CP3-QA-2005, *Nonconformance Control*
- CP3-QA-2006, *Inspection Personnel Training, Qualification and Certification*
- CP3-QA-2500, *Procurement, Inspection, and Management of Items Critical for Paducah Off-Site Waste Shipments*

2.2 Source References

- ASME NQA-1-2008, *Quality Assurance Requirements for Nuclear Facility Applications* (and Addenda through 2009)
- CP2-QA-1000, *Quality Assurance Program Description*
- CP3-QA-2003, *Quality Inspection*
- DOE O 414.1D, *Quality Assurance, Attachment II, Contractor Requirements Document*
- DOE EM-QA-001, Rev. 1, *Environmental Management Quality Assurance Program*
- JHA-9698, *Site Safety Job Hazard Analysis*

3.0 COMMITMENTS

None

4.0 PRECAUTIONS AND LIMITATIONS

None

5.0 PREREQUISITES

None

6.0 INSTRUCTIONS

NOTE:

Quality personnel are qualified to perform receipt inspections for QL 1- 4 items according to CP3-QA-2006, *Inspection Personnel Training, Qualification and Certification.*

6.1 QA Requirements for Receipt Inspection of QL-2 and QL -3 Items

NOTE:

Appendix B, *Guidelines for Completing Receipt Inspection Checklist*, provides instructions to assist with the completion of CP3-QA-2004-F01, *Receipt Inspection Checklist.*

Quality Receipt Inspector

6.1.1 Use CP3-QA-2004-F01, *Receipt Inspection Checklist*, for RIs.

6.1.2 **If** performing a hoisting and rigging equipment receipt inspection, **then** contact the hoisting and rigging subject matter expert (SME) to participate.

NOTE:

Items critical for offsite shipment includes, but is **NOT** limited to the following:

- Waste Containers
- Absorbents
- Container Liners

6.1.3 **If** performing receipt inspection of items critical for offsite shipment, **then** use CP3-QA-2500, *Procurement, Inspection and Management of Items Critical for Paducah Off-Site Waste Shipments.*

6.1.4 **If** performing a fall protection equipment receipt inspection, **then** contact the fall protection equipment competent person to participate.

NOTE:

Material and items that are safety significant or mission critical are categorized as Quality Level 2 and Quality Level 3, respectively. Receipt inspections are performed in support of procurement of these items in order to verify compliance with applicable specifications and requirements. At times, however, existing materials and items that are not directly traceable to a receipt inspection must undergo a process for upgrade. Also, in some instances, Quality Level 4 items may undergo an upgrade in order to ensure safety and mission critical functionality is adequate. In addition, items that are tagged with green serviceable tags from the previous site operator (USEC) must undergo the upgrade process prior to being used.

The upgrade process implemented by Quality Control includes the following steps:

1. Obtain an upgrade number in writing (e-mail) from Engineering that is used for future tracking purposes.

2. Engineering will provide written specifications and inspection criteria for each item. Specifications may include an ESDS or CIS, when available.

3. Quality Control (QC) will perform the required inspections and paperwork as specified in CP3-QA-2004,"Material Receipt Inspections," with these exceptions:

- QC will utilize the provided upgrade number for tracking purposes instead of a purchase order (PO), purchase requisition (PR) number, or purchase order receipt (POR) number.

- Because the material is not newly purchased, there is no QC interaction with Costpoint.

4. Enter into the QC Receipt Log and scan to PO Receipts folder.

5. Materials and items the successfully meet the inspection criteria will be tagged with a QC Accepted/Serviceable tag or equivalent that reflects all relevant information.

6.2 Visual Inspection

Quality Receipt Inspector

6.2.1 Perform an initial visual inspection to determine if any damage has occurred during shipping.

6.2.2 **If** any unusual conditions are noted, **then** perform the following:

A. Stop the inspection

B. Contact the Property and Logistics Manager and Quality Assurance/Quality Control Program Manager (Quality Manager)

C. Generate a Nonconformance Report (NCR) according to CP3-QA-2005, *Nonconformance Control*. Unusual conditions to look for can include:

- Exposure to fire or high temperature
- Prolonged exposure during transit or storage, e.g., weather-beaten, frayed, rust, or stains
- Indications of environmental damage, e.g., water or oil marks, damp conditions, salt film
- Tie down failure, e.g., shifted, broken, loose, or twisted shipping ties
- Splintered, torn, or crushed containers indicating rough handling

6.2.3 In addition, perform examination Steps **6.2.4** through **6.2.14**, as appropriate.

6.2.4 Verify item identification markings are according to applicable codes, specifications, purchase orders (PO), and/or drawings.

6.2.5 Visually confirm there are **NO** suspect/counterfeit items (S/CIs) present according to CP3-QA-1006, *Suspect/Counterfeit Items*.

6.2.6 Verify required supplier/manufacturer's documentation is provided [e.g., Certificate of Conformance (CoC), Certified Material Test Report (CMTR), Certificate of Analysis (COA), certificate of calibration, operating manuals, etc.]

6.2.7 **If** a CoC, CMTR, COA etc. is provided, **then** verify the following minimum information is provided:

- A statement that the material meets procurement requirements such as reference to applicable code, standard, or specification
- Identifies if there is some procurement requirement **NOT** met and the reason or means to resolve the nonconformance
- Lot #, heat #, or other relevant identification information
- Physical OR Electronic signature obtained by the person responsible for the supplier's Quality function
- A unique ID number/serial number for measuring and test equipment
- Equipment/Technical Specification Number/Revision and Drawing Number/Revision, if applicable.

6.2.8 Verify coatings and preservatives are applied according to PO requirements or specification.

6.2.9 Verify inert gas blanket pressure is within acceptable limits as specified.

6.2.10 Verify desiccant is **NOT** saturated.

6.2.11 Visually inspect to ensure item parts are **NOT** torn, ripped, broken, missing, cracked, deformed

6.2.12 **If** possible, **then** verify that rotating parts turn without binding.

6.2.13 Visually inspect accessible internal and external areas to ensure they are within PO specification requirements for dirt, soil, mill scale, weld splatter, oil, grease, or stains.

6.2.14 Verify the following item characteristics conform to specified PO requirements, as appropriate:

- Physical properties conform to specified requirements and any required test reports confirm requirements are met.
- Important dimensions conform to drawings and specifications.
- Workmanship is satisfactory to meet intent of the requirements.
- Presence of any required lubricants or oils as specified in specifications, PO or manufacturer's instructions.
- Electrical insulation is intact, **NO** cuts, abrasions, etc.

- Documentation of weld conformance is provided by the supplier or subcontractor who performed the welding.

6.2.15 Complete RI documentation on CP3-QA-2004-F01 using guidelines in Appendix B for completion.

6.2.16 **If** items inspected are found to be nonconforming, **then** proceed to Section **8.1** for information on tagging instructions.

6.2.17 Document acceptance.

6.2.18 Add green CP-20744, *Serviceable* tag to items **OR** CP-21204, *Post Installation Testing* (PIT) Tag.

6.2.19 Document results in receipt inspection log located under S:\Work Group Folder/Receipt Log, then document in Costpoint.

6.2.20 Notify item owner and warehouse personnel of RI results.

6.2.21 Maintain control of inspected items until warehouse or owner assumes control.

Item Owner/Warehouse Personnel

6.2.22 Maintain control of quality inspected items until released for final installation according to CP3-PR-3001, *Warehouse Operations and Receipt of Material.*

6.2.23 Place inspected items in appropriate controlled storage area, **or** move to final location for installation or use.

6.2.24 Update appropriate log.

Item Owner

6.2.25 **If** released to owner, **then** provide copy of signed receipt traveler to warehouse personnel.

7.0 ACCEPTANCE CRITERIA

7.1 All acceptance criteria applicable to this procedure must be met for the items to be acceptable for continued use and is specified in CP3-QA-2004-F01, *Receipt Inspection Checklist.*

8.0 POST PERFORMANCE WORK ACTIVITIES

8.1 Discovery of Nonconforming Items or Suspect/Counterfeit Items

NOTE:
Items shall be controlled by placement of tags as addressed in Appendix B, *Guidelines for Completing Receipt Inspections Checklist* OR by CP-21204, PIT Tag.

Quality Receipt Inspector

8.1.1 **If** a nonconforming item condition is observed, (CoC is **NOT** provided or incomplete when required, wrong size or incorrect model order, etc.), **then** report **and** disposition nonconforming items according to CP3-QA-2005.

NOTE:

Control of quality items include: securing items in a controlled area and/or maintaining the attached CP-21204, *Post Installation Testing* (PIT) tag, CP-20744 *Serviceable* (green), CP-21470 *Quality Control (QC) Hold tag* (yellow), or LOC0002004 *Rejected* tag (red/white).

8.1.2 Maintain **and** control quality items drawn from warehouse for work/project until inspected.

8.1.3 **If** an item is a S/CI, **then** report according to CP3-QA-1006, *Suspect/Counterfeit Item.*

8.1.4 Segregate nonconforming items and S/CI as specified by Quality Manager. Place yellow CP-21470, *QC Hold tag*(s), according to CP3-QA-2005 on S/CIs and nonconforming items.

8.1.5 **If** the nonconforming item is dispositioned as acceptable, complete the RI according to Section **6.1**, remove the yellow, *QC Hold tag*, apply a green CP-20744, *Serviceable Tag* **OR** CP-21204, *Post Installation Testing* (PIT) Tag, **and** notify item owner and warehouse personnel of the item disposition status.

Material Review Board

8.1.6 **When** NCR Part B disposition of the S/CI or nonconforming item is to scrap or return to supplier, notify Procurement to contact supplier and arrange pickup of returned items and/or material.

Quality Receipt Inspector

8.1.7 **When** the item status is **NO** longer an issue (NCR Part B is dispositioned and NCR Part C is submitted to Procurement for closure), remove the yellow, *QC Hold tag*, **and** apply the red/white *Rejected* tag.

8.1.8 Complete the RI checklist appropriately **and** file per Step **6.2.19.**

8.1.9 **If** the nonconforming item or S/CI is dispositioned as "use-as-is," upon completion of the NCR, **then** complete the RI according to Section **6.2**.

8.1.10 **If** the item has been re-inspected, **then** remove the yellow, *QC Hold tag* **and** apply the green, *Serviceable* tag OR PIT tag.

Item Owner/Warehouse Personnel

8.1.11 Place in proper storage, scrap, **or** return items to the supplier, as appropriate.

9.0 RECORDS

9.1 Records Generated

The following record is generated by this procedure:

- CP3-QA-2004-F01, *Receipt Inspection Checklist,* with associated documents

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

9.2 Records Disposition

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

Appendix A - ACRONYMS/DEFINTIONS

ACRONYMS

ASME – American Society of Mechanical Engineers

COA – Certificate of Analysis

CoC – Certificate of Conformance

CMTR – Certified Material Test Report

FRNP – Four Rivers Nuclear Partnership, LLC., Paducah Deactivation and Remediation Project

M&TE – Measuring & Test Equipment

MSDS – Material Safety Data Sheets

NCR – Nonconformance Report

PIT – Post Installation Testing

PO – Purchase Order

POR – Purchase Order Receipt

PR – Purchase Requisition

QC – Quality Control

QL – Quality Level

RI – Receipt Inspection

S/CI – Suspect/Counterfeit Item

SDS – Safety Data Sheets

SME – Subject Matter Expert

UL – Underwriters Laboratory

DEFINITIONS

Nonconformance – A deficiency in characteristic, documentation, or procedure that renders the quality of an item, material or component unacceptable or indeterminate.

Quality Receipt Inspector – A qualified person that is **NOT** directly involved with the manufacture of the items being inspected.

Safety Significant Equipment – Equipment whose preventive or mitigating function is a major contributor to defense-in-depth and/or worker safety and is defined in a facility safety basis document.

Storage – The act of holding items in storage facilities.

Wrap – Flexible material formed around the item or package to exclude dirt and to facilitate handling, marking, or labeling.

Appendix B – GUIDELINES FOR COMPLETING RECEIPT INSPECTION CHECKLIST

Required Inspections (Mark if Required) Section

A. Identification and Markings: Verify items are identified or marked according to procurement document requirements and/or technical specification. If item size, configuration, rating, model number, or part number is included in the item description, verify the item is correct per description.

NOTE:
Fasteners must be identified with manufacturer markings and grade to preclude S/CI introduction into the plant site.

B. Packaging: Verify items are packaged according to procurement requirements and include any required documentation/certification.

C. Shipping Damage: Verify whether the item sustained any damage during shipping or handling. Evidence of shipping damage to the package or container warrants further special inspection of the item. Particular attention needs to be paid to protective covers, seals and surface conditions.

D. Physical Damage: Verify items are **NOT** torn, broken, cracked, deformed, missing or misaligned.

E. Cleanliness: Verify accessible areas are free of dirt, soil, mill scale, weld splatter, oil, grease, or stains. **If** inspection for cleanliness was performed prior to sealing and shipping, and inspection upon receipt indicates there has **NOT** been any penetration of the sealed boundary, an inspection for cleanliness does **NOT** need to be performed.

F. Surface Condition: Verify the accessible unsealed external and internal surfaces are free of detrimental conditions, e.g., gouges, tears, dents, scratches, burrs, etc. Stainless steel items should **NOT** have any rusty areas.

G. Workmanship: Visually inspect accessible areas to ensure that the general workmanship meets the intent of the item functional requirements. This may include welds, solder joints, coatings, too marks, etc. **If** items have electrical terminations, **then** inspect lugs for proper size, crimping, and absence of cracking or damage. Inspect wirings at terminal points for correct insulation of stripping, i.e., insulation inside the barrel of the uninsulated lugs; **NO** insulation seen at the inspection port on the terminal side of the barrel of insulated lugs.

H. S/CI inspection per CP3-QA-1006.

I. Preservatives: Verify any preservative required by the PO or specification has been applied.

J. Protective Covers and Seals: Verify end caps, plugs, wraps, etc. are intact.

K. Lubricants and Oils: Verify grease fittings have been greased (if practical) and oil reservoirs are at the correct level as required by the PO or specification.

L. Dimensions/Configuration: Verify dimensions and item configuration match PO or specification requirements.

M. Testing/Inspections: Verify required manufacturer or supplier's testing has been performed and documented. Perform any additional tests or inspections as required per the PO or specification requirements.

N. Documentation: Verify vendor required documentation is included as required by PO or specification requirements. This may include (CoC, CoA, CMTR, Underwriter's Laboratory (UL), owner or operating manuals, etc.

O. Material Safety Data Sheets (MSDS)/Safety Data Sheet (SDS): Is the Material Safety Data Sheet or Safety Data Sheet or included, if applicable.

P. Other: Any special requirements stated on PO or specification **NOT** met by, or included in the above.

Q. Placement of tags: (green *Serviceable* tag, CP-20744, yellow *QC Hold* tag, CP-21470, red/white *Rejected* tag LOC0002004, CP-21204 *Post Installation Testing* (PIT) tag) tag number, as applicable.

Appendix B – GUIDELINES FOR COMPLETING RECEIPT INSPECTION CHECKLIST

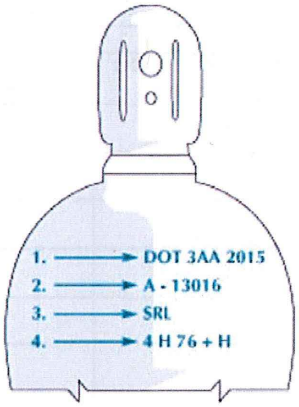
Compressed Gas Cylinders Section

If item being receipt inspected is **NOT** Compressed Gas Cylinders, **then** mark the "**NOT** Applicable" box and skip this section.

Reminder: List the hydrostatic test date of the compressed gas cylinder in with the item description.

Examples:

DOT Cylinder Marking Information



1. Cylinder Specifications

DOT – US. Department of Transportation (Regulatory body that governs use of gas cylinders)
3AA – Type and material of construction
2015 – Service pressure in pounds per square inch gauge

2. A-13016 – Serial number

3. SRL – Identifying symbol, registered with US DOT

4. Manufacturing Data:

4-76 – Date of manufacture and original test date
H – Inspectors official mark
+ – Cylinder qualifies for 10% overfill
★ – Cylinder qualifies for 10 year retest interval

Additional Notes:

- ☐ Hydrostatic test dates can be located in multiple locations on the cylinder
- ☐ Cluster cylinders (also known as cylinder bank) require the standard 5 year retest
- ☐ Use the DOT manual to confirm correct DOT markings
- ☐ Containers, cylinders, and tanks, designed for use in a horizontal position shall be permitted to be stored in a horizontal position.

Comments Section

Write the quantity inspected versus the quantity received - for large group items with the same lot number (identically produced items) contact Engineering for a sampling plan, otherwise 100% of the items must be inspected.

Write any precautions from the vendor **NOT** listed on the MSDS/SDS in this section.

If measuring and testing equipment (M&TE) is used during the receipt inspection, **then** the M&TE used; the ID number; and the Calibration Due Date off of the M&TE used should be listed in this section.

CP3-QA-2004-F01 - Receipt Inspection Checklist

Date Performed: _____

Receipt Inspection # _____

Purchase Order	Partial Order ☐
Purchase Requisition No.	
Manufacturers Information	
Requesting Organization	
Specification Number (if applicable)	
Storage Level	A ☐ B ☐ C ☐ D ☐ NA ☐

Qty. Rec.	Item Description *	Vendor Part Number	Heat/Serial Number (if required)	PO Item #

CP3-QA-2004-F01 - Receipt Inspection Checklist (Continued)

Date Performed: _____ **Receipt Inspection #:** _____

Required Inspections (Mark if Required)

A = Acceptable U = Unacceptable

Inspection Attributes		A/U	Inspection Attributes		A/U
A) Identification and Markings	☐		I) Preservatives	☐	
B) Packaging	☐		J) Protective Cover and Seals	☐	
C) Shipping Damage	☐		K) Lubricants and Oils	☐	
D) Physical Damage	☐		L) Dimensions/Configuration	☐	
E) Cleanliness	☐		M) Testing/Inspections	☐	
F) Surface Conditions	☐		N) Documentation - CMTR, CoC	☐	
G) Workmanship	☐		O) SDS/MSDS	☐	
H) S/CI Inspection per CP3-QA-1006	☐		P) Other	☐	

Compressed Gas Cylinder specific information **Not Applicable ☐**	**A/U**
No excessive corrosion or bulging is present	
No visible evidence of oil or grease is on the cylinders or the valves	
Certificate of Analysis conforms to SDS/MSDS requirements	
Cylinders hydrostatic test date is current	
Cylinders are properly stored/placed/transported secured when necessary	
Removable caps are present for valve protection	
A durable label/tag is attached to the cylinders identifying the contents	
Cylinders have correct US DOT label or alternate markings required for the type of compressed gas contained	

Inspection Results: ☐ Acceptable ☐ Unacceptable NCR#:

CP-21470, Yellow QC Hold Tag:		Placed date	
		Removed date	
Red/White Reject Tag:		Placed date	
CP-20744, Green Serviceable Tag:		Placed date	
CP-21204 Post Installation Testing (PIT) tag		Placed date	

Comments: *

Receipt Inspected by:

NAME _____ SIGNATURE _____ DATE _____

If Applicable NCR Disposition- _____

Item ☐ Accepted ☐ Returned/Disposition

NCR Disposition Verified By:

NAME _____ SIGNATURE _____ DATE _____

* If M&TE is used during the receipt inspection include the M&TE used; the ID number, and the Calibration Due Date.