

# WP 09-CN3021

Revision 8

## Component Indices

Management Control Procedure

EFFECTIVE DATE: 05/03/06

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APPROVED FOR USE

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## INTRODUCTION

This procedure establishes the requirements for controlling, and requests for assignment of numbering, equipment, instruments and instrument loops, valves, pipelines, dampers, cables, conduit runs, pullboxes, and facilities. This procedure defines the Cognizant Engineer's (CE) responsibilities for ensuring that the Waste Isolation Pilot Plant (WIPP) facilities structures, systems, and components (SSCs) within their system are numbered as required.

Information used by Component Indices (CIs) for labeling SCCs are found in the Guideline Instructions, CI-100.

This procedure also addresses the specific responsibilities for maintaining the WIPP Facility SSC CIs. Information regarding the CIs are maintained in the Computerized History and Maintenance Planning System (CHAMPS) Equipment Module.

The CE shall indicate by his or her signature that blanks remaining in the form are intentional and are not required to record technically significant information.

Performance of this procedure by itself does **NOT** create records; however, when performed in conjunction with the development of an Engineering Change Proposal (ECP), Engineering Change Order (ECO), or CHAMPS-generated Work Order (WO), the ECO or the WO package will contain records created from the following electronic attachments (EAs):

- EA09CN3021-1-0, General Mechanical Facility Component Number Request
- EA09CN3021-2-0, General Electrical Facility Component Number Request
- EA09CN3021-3-0, General Instrument Facility Component Number Request

## REFERENCES

### BASELINE DOCUMENTS

- DOE Order 5480.19, *Conduct of Operations*
- DOE STD-1073-93, *Configuration Management*
- DOE/WIPP-95-2065, *Waste Isolation Pilot Plant Contact Handled (CH) Waste Documented Safety Analysis*
- DOE/WIPP-95-2125, *Waste Isolation Pilot Plant Contact Handled (CH) Technical Safety Requirements*
- DOE/WIPP-06-3174, *Waste Isolation Pilot Plant Remote Handled (RH) Waste Documented Safety Analysis*

- DOE/WIPP-06-3178, *Waste Isolation Pilot Plant Remote Handled (RH) Technical Safety Requirements*
- WP 09-CN3034, Configuration Management Determination
- WP 15-PC3609, Preparation of Purchase Requisitions

#### REFERENCED DOCUMENTS

- Hazardous Waste Facility Permit (HWFP), Waste Isolation Pilot Plant, Permit No. NM4890139088TSDF, issued by the New Mexico Environment Department
- WP 09-CN3023, Functional Classification Determination for Design
- EA09CN3021-1-0, General Mechanical Facility Component Number Request
- EA09CN3021-2-0, General Electrical Facility Component Number Request
- EA09CN3021-3-0, General Instrument Facility Component Number Request

## PERFORMANCE

### 1.0 ACTIONS BEFORE ECO APPROVAL

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#### NOTE

Nontechnical corrections to the CHAMPS database or plant equipment such as golf carts, temporary storage buildings, and forklifts not identified on drawings, require identification numbers but are **NOT** controlled by the ECO process.

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1.1 Requestor/CE, perform the following:

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#### NOTE

If multiple SSC numbers in the same system, with the same make, model, and drawing, are to be added, a listing of those components can be attached to a single EA. The attached listing contains the location of the SSCs and has space available to inscribe the SSC numbers.

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#### NOTE

The Design Class will become Functional Class in CHAMPS when a new or a change component sheet (EA) is issued. The Design Class will remain until a change is made; then it will become Functional Class.

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1.1.1 Complete the component description, functional class, and system sections (at a minimum) of the following EAs using available information:

- EA09CN3021-1-0
- EA09CN3021-2-0
- EA09CN3021-3-0

1.1.2 Requestor/CE, review, sign, and date the EA.

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#### NOTE

The WIPP Technical Safety Requirements (TSR) provide the basis for Mode Compliance Equipment. The Mode Compliance Equipment is used to identify the equipment that will support waste handling. General Plant Design Description (GPDD) provides the criteria for identification of the different categories used for Mode Compliance Equipment. Mode Compliance SSC is coded "M" in the CHAMPS Equipment Module "*Criticality*" field as described in Step 1.4.2[ A ].

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1.2 CE, perform the following:

1.2.1 Complete the Mode Compliance SSC section of the EA.

- 1.2.2 Review and sign the EA.
- 1.2.3 Return the signed EA to the Requestor, if required.
- 1.3 Requestor, submit the original EA, with signatures, for CIs assignment of a number.

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**NOTE**

Superseded numbers are **NOT** available for reuse. SSC numbers to be superseded will be marked with the notation of "TS" (To Be Superseded); the number will be shown as superseded in the CHAMPS Equipment Module at the time of ECO closure.

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- 1.4 CI Personnel, verify the request is for the assignment of a new number.

- 1.4.1 Assign SSC numbers and record the SSC numbers on the appropriate EAs using the Guideline Information (CI-100):

- Work Breakdown Equipment (WBE) number designator - Section 2, Table 1
- Guidelines for Labeling SSCs - Section 1
- Equipment Type Designator - Section 2, Table 2
- General/Mechanical Equipment Instructions - Section 3
- General Electrical Facility Component Number Request Instructions - Section 4
- General Instrument Facility Component Number Request Instructions - Section 5

- 1.4.2 Enter the information from the EA in the CHAMPS Equipment Module, as follows:

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**NOTE**

Equipment will be coded with an "M" in the CHAMPS Equipment Module "*Criticality*" field. Resource Conservation and Recovery Act Hazardous Facility Waste Permit (HWFP)-Related Equipment will be coded with an "A," "D," or "F" in the CHAMPS Equipment Module "Safety Indicator" field.

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- [ A ] If the EA indicates the item is Mode Compliance Equipment, enter the following code into the CHAMPS Equipment Module "*Criticality*" field:

- M - Mode Compliance Equipment

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**NOTE**

Specific to instruments designated as either Mode Compliance Equipment or HWFP-Related Equipment, a "C" designator will be added into the CHAMPS Equipment Module "*Criticality*" field which will indicate that these items are calibrated equipment required for waste handling and/or storage modes as described in the GPDD.

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[ B ] If the EA indicates that an item is HWFP-Related Equipment, enter one of the following codes into the CHAMPS Equipment Module "*Safety Indicator*" field:

- A - HWFP-Related Equipment from the WIPP Hazardous Waste Permit, Attachment A (General Facility and Process Information)
- D - HWFP-Related Equipment from the WIPP Hazardous Waste Permit, Attachment D (Equipment Inspections)
- F - HWFP-Related Equipment from the WIPP Hazardous Waste Permit, Attachment F (Emergency Equipment)<sup>1</sup>

1.4.3 Stamp the EA "ORIGINAL."

1.4.4 Sign the EA in the ENTERED BY block.

1.4.5 Make one copy of the EA.

1.4.6 Return the original EA to the Requestor to be placed in the ECO.

1.4.7 File an information copy of the EA in the appropriate books located in the Auxiliary Engineering File Room (EFR).

1.5 Requestor/CE, after CI Personnel assign a number, place the original EA in the ECO.

2.0 ACTIONS AFTER ECO APPROVAL

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**NOTE**

Prior to closeout of an ECO, the CE may add information whenever new information is received.

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2.1 Update the EA with additional information as received.

### 3.0 ACTIONS AFTER SIGN-OFF OF MODIFICATION COMPLETE

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#### **NOTE**

Steps 3.1 and 3.2 are to be performed by CI Personnel other than the personnel who entered the data from the EA into the database.

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- 3.1 Before CE performs ECO validation, designated CI Personnel, using the EA, update the CHAMPS Equipment Module.
- 3.2 Verify the accuracy of the information entered into the CHAMPS Equipment Module and sign the EA in the VERIFIED BY block.
- 3.3 If changes (such as typographical error correction) are required after the EA request process has been completed, Requestor/CE, retrieve the EA from the ECO and perform required changes.
- 3.4 If other changes (such as changes to set points, model number, manufacturer data, prints, SDDs, etc.) are required after the EA has been processed, Requestor/CI, perform the following:
  - 3.4.1 Requestor, upon identifying the SSC to be changed, obtain a new EA and complete pertinent portions as follows:
    - [ A ] Check the Change Box as appropriate.
    - [ B ] Write in the SSC number.
    - [ C ] Fill in only those additional blocks which require changing.
    - [ D ] Review, sign, and date the completed EA.
    - [ E ] Forward the completed EA to the CE for review.
  - 3.4.2 CE, check the block on the EA to indicate that the CHAMPS Equipment Module is **NOT** to be changed until the old equipment is replaced with new equipment and the ECO is validated.

#### 4.0 SSC CHANGES VIA THE WORK ORDER PROCESS

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##### **NOTE**

With the exception of SSCs that are not shown on drawings, such as mobile equipment, golf carts, mining equipment, etc., an ECO- or CHAMPS-generated WO is required to support the change to physical components or to the CHAMPS Equipment Module (with the exception of Step 3.3).

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- 4.1 If, during the performance of a WO, a replacement part is required and is different from the manufacturer and/or model number contained in the equipment register, change the CHAMPS Equipment Module.
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##### **NOTE**

For a Corrective (**C**) type WO, this change can be performed without an ECO provided that any replacement parts are like-for-like and that there are no impacts that would otherwise require an ECO.

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- 4.2 If an ECO must be generated, the **C** type WO must be canceled and a Modification (**M**) type WO must be generated.
- 4.3 On all changes, obtain CE review and concurrence with the change.
- 4.4 If an ECO is **NOT** required, Requestor/CE, perform the following:
- 4.4.1 Requestor, upon identifying the component to be changed, obtain a new EA and complete pertinent portions as follows:
- [ A ] Check the Change Box as appropriate.
  - [ B ] Write in the SSC number.
  - [ C ] Fill in only those additional blocks which require changing.
  - [ D ] Fill in the WO number at top of EA.
  - [ E ] Review, sign, and date the completed EA.
  - [ F ] Forward the completed EA to the CE for review.
- 4.4.2 CE, perform the following:
- [ A ] Determine if replacement part(s) meet the design requirements.
  - [ B ] Verify an ECO is not required for any other impacts (changes to drawings, SDDs, etc.).

[ C ] If any such impacts are identified, **GO TO** Step 4.2 and perform actions.

[ D ] Change Store Stock Request (SSR), if required.

[ E ] Return the signed EA to the Requestor.

4.4.3 Requestor, when the field work is completed, submit the completed original EA, with signatures, to Cognizant Individual for incorporation of changes into the CHAMPS Equipment Module.

4.4.4 Cognizant Individual, perform the following:

[ A ] Change the information in the CHAMPS Equipment Module.

[ B ] Stamp the EA ORIGINAL.

[ C ] Sign the EA in the ENTERED BY block.

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**NOTE**

Information will be verified by CI Personnel other than the personnel who entered the data from the EA into the CHAMPS Equipment Module.

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[ D ] Sign the EA in the VERIFIED BY block.

[ E ] Make one copy of the EA Number Request.

[ F ] Return the original EA to the Requestor to be placed in the CHAMPS-generated WO.

4.4.5 File an information copy of the EA in the appropriate books located in the Auxiliary EFR.

## 5.0 PERIODIC REVIEW OF INACTIVE SSCs

5.1 CI Personnel, perform the following:

5.1.1 Periodically examine the CHAMPS Equipment Module for SSC numbers shown as inactive.

5.1.2 Verify the associated ECOs are still open against the inactive SSCs.

5.1.3 If discrepancies are noted, research the associated ECOs and change the status as required.

5.2 If a funded SSC is **NEVER** purchased, Requestor/CI Personnel, perform the following:

5.2.1 Requestor,

[ A ] Close out an existing ECO.

[ B ] Cross through and initial the ADDITION block on the EA in the ECO package.

5.2.2 CI Personnel, discontinue the SSC number in the CHAMPS Equipment Module prior to ECO closure or cancellation.

## 6.0 SUPERSEDED SSC NUMBERS

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### NOTE

Superseded numbers are **NOT** available for reuse. SSC numbers to be superseded will be marked with the notation of "TS" (To Be Superseded); the number will be superseded in the CHAMPS Equipment Module at the time of ECO closure.

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6.1 CI Personnel, when a new SSC number is replacing a previously numbered component, perform the following:

6.1.1 Record the new SSC number and the number to be superseded in the appropriate block of the EA.

6.1.2 Record the new SSC number and the superseded number in the CHAMPS Equipment Module.

6.2 CE, if applicable, verify that the equipment file located in the EFR is changed to reflect the new equipment number.

## 7.0 DELETION OF INSTALLED SSC NUMBERS FROM THE CHAMPS EQUIPMENT MODULE

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### NOTE

An ECO is required to delete SSCs maintained in the CHAMPS Equipment Module. SSCs to be deleted are marked with the notation of "TD" (To Be Deleted); which are changed to "D" (Deleted), at the time of ECO closure.

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7.1 Requestor/CE, upon identifying the SSC to be removed, complete the pertinent portions of the appropriate EA as follows:

7.1.1 Check the Deletion Box as appropriate.

- 7.1.2 Write the SSC number to be deleted and the associated system number in the appropriate blocks of the EA.

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**NOTE**

If multiple SSC numbers in the same system are to be deleted, a listing of those components may be attached to a single EA.

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- 7.1.3 Review, sign, and date the completed EA.
- 7.1.4 Forward the completed EA to the CE for review.
- 7.1.5 CE/Requestor, submit the EA to CI Personnel for processing.
- 7.1.6 CI Personnel, **GO TO** Step 1.4.2 and perform actions through Step 1.4.6, **AND RETURN TO** Step 7.1.7.
- 7.1.7 Requestor, place the EA in the ECO.

## 8.0 TEMPORARY/REPLACEMENT OF INFORMAL, MISSING, OR DAMAGED SSC NUMBER TAGS

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**NOTE**

Temporary SSC number tags may be used until the permanent SSC number tags are installed.

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- 8.1 Cognizant Individual, using this procedure, determine whether replacement and installation of permanent or temporary tags is required based on the following:
- 8.1.1 CE, verify proper tag is installed as required.
- 8.1.2 CE, if an SSC number was never assigned, determine whether numbering of the SSC is required.
- 8.1.3 Cognizant Individual, if an SSC number was assigned, contact the Tool Crib for a replacement SSC number tag.
- 8.1.4 CE, verify the replacement SSC number tag meets the requirements of this procedure.
- 8.1.5 Cognizant Individual, install replacement SSC number tag.