

# CCP-TP-554

Revision 2

## CCP

# Remote-Handled Grapple Pre-Operational Checks and Operation

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PRINTED NAME

APPROVED FOR USE

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
0	01/19/2007	Initial issue.
1	06/28/2007	Revised to add quarterly preventative maintenance inspections.
2	10/13/2009	Revised to clarify pre-operational check steps. Deleted maintenance activities which will be performed under the WIPP Maintenance program as identified in CAR-SRS-0008-09.

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## 1.0 PURPOSE

This procedure provides guidance for performing Pre-Operational Checks and Operation of the Remote-Handled (RH) Grapple.

### 1.1 Scope

CCP personnel at the shipment site are responsible for the activities described in this procedure to conduct Canister and/or RH 72-B Cask Loading Operations.

## 2.0 REQUIREMENTS

### 2.1 References

#### Baseline Documents

- DOE Standard 1090, *Hoisting and Rigging*
- DOE/WIPP 02-3284, *RH Packaging and Operations Manual*
- Westmont Industries Grapple Maintenance Manual

#### Referenced Documents

- CCP-QP-002, *CCP Training and Qualification Plan*
- CCP-QP-008, *CCP Records Management*
- CCP-QP-011, *CCP Notebooks and Logbooks*

### 2.2 Training Requirements

2.2.1 Personnel performing this procedure will be trained and qualified in accordance with CCP-QP-002, *CCP Training and Qualification Plan*, prior to performing this procedure.

### 2.3 Precautions and Limitations

2.3.1 Pre-Operational Checks are required prior to operating the Grapple on each shift.

2.3.2 Only qualified RH Packaging Operator or trainees under the direct supervision of a qualified person are authorized to perform the activities specified in this procedure.

2.3.3 The Grapple is designed to lift a canister lid, empty canister, or loaded canister in a vertical configuration only. NO SIDE LOADING IS ALLOWED.

2.4 Prerequisite Actions

2.4.1 Review Central Characterization Project (CCP)/Mobile Loading Unit (MLU) Operational Logbook for outstanding deficiencies.

2.4.2 Verify Grapple is resting on Grapple Pre-Operational Stand or pintle cap of canister lid.

2.5 Definitions

2.5.1 None.

3.0 RESPONSIBILITIES

3.1 Mobile Loading Unit (MLU) Supervisor

3.1.1 Ensures proper implementation of this procedure by the qualified Canister Loading or RH 72-B Cask Operators.

3.2 Canister Loading Operators or RH 72-B Cask Operators

3.2.1 Performs the specific functions of this procedure.

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## 4.0 PROCEDURE

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### NOTE

Deficiencies that prevent proper operation of the equipment **OR** that represent a safety hazard to personnel **MUST** be corrected prior to operation.

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### 4.1 Grapple Pre-Operational Checks

4.1.1 Inspect the following for tightness, wear, and damage:

- Pins and fasteners
- Kellum Grips
- Cable(s)
- Electrical Connectors
- Proximity switches
- Grapple locking cams
- Grapple Control Panel Indicator Lights

4.1.2 Inspect Grapple for external evidence of damage to motor or controls.

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### NOTE

Deficiencies that are corrected when discovered may be considered a satisfactory check and is recorded in the logbook.

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4.1.3 **IF** any deficiencies **CAN NOT** be corrected, **THEN** notify MLU Supervisor prior to operating Grapple.

4.1.4 Verify cable from Grapple is connected to the Grapple Control Panel.

4.1.5 Verify power supply cord on Grapple Control Panel is plugged into an electrical receptacle.

4.1.6 Push GREEN RESET Button on Ground Fault Circuit Interrupter (GFCI) on power cord.

4.1.7 Verify the following indicator lights are illuminated on the Grapple Control Panel:

- Power
- Grapple Open
- Pintle Detect

- 4.1.8 Push RED TEST Button on GFCI on power cord.
- 4.1.9 Verify indicator lights on Grapple Control Panel go OFF.
- 4.1.10 Push GREEN RESET Button on GFCI to restore power.
- 4.1.11 Verify the following indicator lights are illuminated on the Grapple Control Panel:
  - Power
  - Grapple Open
  - Pintle Detect
- 4.1.12 Rotate switch on the Grapple Control Panel to the CLOSE position.
- 4.1.13 Verify GREEN Grapple CLOSED indicator light on Grapple Control Panel illuminates.
- 4.1.14 Rotate switch on the Grapple Control Panel to the OPEN position.
- 4.1.15 Verify RED Grapple OPEN indicator light on Grapple Control Panel illuminates.
- 4.1.16 Repeat Steps 4.1.12 through 4.1.15 at least three times while listening for any noise that may indicate binding or alignment problems.
- 4.1.17 Rotate switch on Grapple Control Panel to the OFF position.
- 4.1.18 Record the following information in CCP/MLU Operational Logbook in accordance with CCP-QP-011, *CCP Notebooks and Logbooks*:
  - Grapple Equipment Number and state as satisfactory or unsatisfactory
  - Deficiencies noted
  - Corrective Action taken

## 4.2 Grapple Operation

### 4.2.1 Attaching Grapple to Canister Lid

- [A] Attach Grapple to crane hook using appropriate rigging.

- [B] Attach Grapple to pintle cap on canister lid.
- [C] Verify pintle detect indicator light on Grapple Control Panel illuminates.
- [D] Rotate switch on Grapple Control Panel to the CLOSE position.
- [E] Verify GREEN Grapple CLOSED indicator light on grapple Control Panel is illuminated.
- [F] Rotate switch on Grapple Control Panel to the OFF position.

#### 4.2.2 Releasing Grapple from Canister Lid

- [A] Verify pintle detect indicator light on Grapple Control Panel is illuminated.
- [B] Rotate switch on Grapple Control Panel to the OPEN position.
- [C] Verify RED Grapple OPEN indicator light on Grapple Control Panel illuminates.
- [D] Rotate switch on the Grapple Control Panel to the OFF position.
- [E] If required, remove Grapple.

5.0 RECORDS

5.1 Records generated during the performance of this procedure are maintained as Quality Assurance (QA) records in accordance with CCP-QP-008, as listed below:

5.1.1 QA/Nonpermanent

[A] Mobile Loading Unit (MLU) Operational Logbooks