

**Allen, Pam, NMENV**

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**From:** Maestas, Ricardo, NMENV  
**Sent:** Wednesday, August 13, 2014 10:05 AM  
**To:** Allen, Pam, NMENV  
**Subject:** FW: Class 1 March 28, 2014 Permit Modification  
**Attachments:** image001.emz; image003.emz; image005.emz; PM041173 Rev 7.pdf; PM411028 Rev 1.pdf

Email and att.  
Don't worry about the images.  
Thank you!

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**From:** Kliphuis, Trais, NMENV  
**Sent:** Wednesday, April 16, 2014 11:14 AM  
**To:** Allen, Pam, NMENV  
**Cc:** Maestas, Ricardo, NMENV  
**Subject:** FW: Class 1 March 28, 2014 Permit Modification

For the record. Thanks.

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**From:** Chavez, Rick - RES [<mailto:Rick.Chavez@wipp.ws>]  
**Sent:** Thursday, April 03, 2014 8:23 AM  
**To:** Kliphuis, Trais, NMENV  
**Cc:** Basabilvazo, George - DOE; Stone, Anthony - DOE; Kehrman, Bob - RES  
**Subject:** Class 1 March 28, 2014 Permit Modificaiton

Trais:

Below is the announcement pertaining to the subject Permit modification that you recently requested.

Also attached are the preventive maintenance procedures referenced in the subject modification.

Rick Chavez, Manager  
NWP LLC Regulatory Environmental Services  
Contractor to the Department of Energy  
4021 National Parks Highway MS GSA-109  
Carlsbad, NM 88220  
575-234-7405

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**From:** Taylor, James [<mailto:James.Taylor@urs-gmos.com>]  
**Sent:** Wednesday, February 26, 2014 7:48 AM  
**To:** 1.1 - GMOS Group Headquarters; 2 - Professional Solutions; 4 - Projects; 5 - Project Engineering Services; 5.1 Project



A MESSAGE FROM

**James Taylor**

General Manager  
Global Management & Operations Services

February 26, 2014

Over the past month, I have had the pleasure of visiting several of our sites and meeting many of you. I am impressed with the commitment and dedication to the company and to getting work done safely for our customers at each of our projects. I hope to visit the balance of our projects over the next few months.

Several weeks ago, the company made the decision to realign Global Management & Operations Services (GMOS) from the Energy & Construction Division (EC) to the Federal Services Division (FS). As mentioned to everyone the day of the announcement, the move is both a good one for the Corporation and for GMOS. Randy Wotring, President of FS, spent most of last week here in Aiken, meeting our senior management team and engaging in the details of our business. After his visit, I am even more convinced that this move will strengthen our company. The process and timeline of the transition was a major topic of discussion and Randy is hopeful the corporate governance transition will be completed no later than April 1. To ensure a smooth and efficient transition from EC, I have assigned John Donnell to serve as GMOS Transition Manager reporting to me. John will soon provide detailed information regarding our process and timeline. I ask that you support John as we work to make this a timely and efficient transition to FS.

In addition to project and employee meetings, I have been meeting with many of our DOE and NDA customers over the last month as well. My meetings with Dave Huizenga, Acting Assistant Secretary for DOE's Office of Environmental Management, and John Clarke, Chief Executive Officer of the NDA, were successful and my messages included many of the same themes outlined in my January 15, 2014 GMOS employee memo. They are:

- Safety is our number one core value
- Delivery of our contracts through operational excellence and transparency
- We will elevate our project management performance
- Innovation will create solutions to solving our customers' problems
- Teamwork will be a key component to our success across the complex
- We want to partner with our customer which will lead to a win-win for both

I have also conducted successful meetings with our DOE field managers including Kevin Smith, Office of River Protection Manager, Matt McCormick, Richland Manager, and Dave Moody, SRS Manager. I plan to update our customers often, with these themes being the focus of my message.

Operationally, we have realized significant successes such as final closure of high level waste tanks 5 and 6 at SRS, and this week we accomplished a major milestone at the SPRU project by completing the sludge solidification work. The last off-site shipment of the sludge waste is scheduled to leave New York State on Thursday, February 27. Todd Wright and Ellen Livingston-Behan will be there to celebrate this accomplishment with our DOE customer.

Also, WTP URS employees have surpassed 9 years without a lost-time work injury, SRR is beyond the 3.5 million safe hours without a lost-time work injury, and NETL-RES has had 2 years of safe operations. Finally, our project performance in the DOE system in 2013 was very good with year-end award fee score averaging over 90 percent. This is excellent performance which should be emulated in 2014.

Unfortunately, our January/February accomplishments have been overshadowed by recent events at the Waste Isolation Pilot Plant (WIPP). On February 5, WIPP had an underground fire which halted all operations. This was followed by a radiological event at the site on February 14 which we are still working to resolve. Facility conditions are stable and improving and re-entry planning and recovery planning is in progress. Multiple URS teams are working in close collaboration with the DOE to support the assessment, recovery, and resumption of WIPP operations. I want to thank all of the URS and project personnel on the ground in Carlsbad for all they are doing to identify and support the efforts at WIPP. This is an important operation for our DOE customer, and we will work diligently to get the waste disposal operations at WIPP operating as soon as possible.

Looking ahead, we will continue to focus on growing our business. The General Accounting Office (GAO) should make their decision regarding our Y-12/Pantex procurement award protest this week, and discussions continue with DOE on contract issues at the SPRU site. Within the next two weeks, GMOS will be attending two major industry conferences – the Waste Management Symposia in Phoenix and the Canadian Nuclear Association Conference in Canada. Our Business Development team has been selling our commercial reactor D&D capabilities; and, hopefully, we will have positive results to announce soon.

Finally, I realize there has been much change the last several months. As we continue to align ourselves with FS, we will likely experience more change. As we are going through these changes, I ask that you stay focused on your safety, both at work and home. Also, be efficient and do the best you can to deliver the commitments we have made to our customers. As I continue to visit our projects, I'll share thoughts on the actions we need to take to ensure our continued success.

Regards,  
James

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# PM411028

Revision 1

## GRAPPLE HOIST 41-H-022 QUARTERLY AND ANNUAL INSPECTION AND MAINTENANCE

Maintenance Procedure

[WH03]

**2NF**  
**Working Copy**

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**CHANGE HISTORY SUMMARY**

Revision Number	Date Issued	Description of Changes
1	022614	Procedure rewrite to specifically address WCD Format and Workability issues.

**1.0 INTRODUCTION****1.1 PURPOSE AND SCOPE**

This Work Control Document (WCD) provides instructions for performing the **QUARTERLY** and **ANNUAL** Grapple Hoist 41-H-022 inspection and maintenance.

**2.0 REFERENCES****BASELINE (DEVELOPMENTAL)**

WP 04-AD3011	Equipment Lockout/Tagout
WP 04-AD3030	Pre-Job and Post-Job Reviews
WP 10-AD3005	Control and Use of Maintenance Locks
WP 12-HP3600	Radiological Work Permits
WP 12 IS.01	Industrial Safety Program
WP 12 IS.01-1	Industrial Safety Program-Barricades and Barriers
WP 12-IS.01-10	Industrial Safety Program – Fall Protection and Prevention
WP 12-IS.01-12	Industrial Safety Program – Hoisting and Rigging
WP 13-1	Quality Assurance Program Description

**3.0 MATERIALS****MATERIAL LIST**

Item	Material Description	Qty	Unit	Pr / Whse Stock No.
1	Wire Rope Lubricant	AR	Ea.	X-12-04057
2	SHC 634	AR	Ea.	41-T-00023
3	EP-2 Grease	AR	Ea.*	X-12-04027
4	Oil Sample kit ( <b>ANNUAL</b> )	AR	EA*	41-04000

\* - Required Material, all others as required.

## 4.0 EQUIPMENT

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Description
Safety Glasses with side shields
Fall Protection PPE as determined from WP 12-IS.01-10

### TOOLS AND EQUIPMENT

Description
Aerial Lift *
Oil drain hose
Oil collection drum

\* - Required Material, all others as required.

### MEASUREMENT & TESTING EQUIPMENT (M&TE)

Description
Digital Caliper, Calibrated *

\* - Required Material, all others as required.

## 5.0 PRECAUTIONS

### 5.1 CHEMICAL HAZARD

- Craft will be exposed to Chemical Hazard due to use of lubricants.

### 5.2 FALLS FROM ELEVATION HAZARD

- Craft will be exposed to Falls from Elevation Hazard due to use of Aerial Lift.

### 5.3 FALLING OBJECT HAZARD

- Craft will be exposed to Falling Object Hazard due to work being performed from elevated platform.

## **6.0 LIMITATIONS**

### **6.1 LIMITATIONS**

- Radiological – This Preventive Maintenance procedure is to be performed in accordance with the requirements and limitations of the applicable Radiological Work Permit.

### **6.2 REQUIRED QUALIFICATIONS AND TRAINING**

- Qualified Operator
- Qualified Mechanic(s)
- Qualified Forklift Operator

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**NOTE**

This NOTE applies to Section 7.0.  
Steps in Section 7.0 may be worked in any sequence.

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**7.0 PREREQUISITES****7.1 ADMINISTRATIVE**

- [ ] 7.1.1 WGM/FWM or Designee, **CONDUCT** task pre-job brief per WP 04-AD3030.
- [ ] 7.1.2 **RECORD** Work Order number on Attachment 1.

**7.2 TASK PREPARATION**

- [ ] 7.2.1 **OBTAIN** items shown in Section 3.0, Materials, and Section 4.0, Equipment.
- [ ] 7.2.2 **ENSURE** M&TE is within current calibration cycle.
- [ ] 7.2.3 **RECORD** M&TE data on M&TE Documentation Table in Attachment 1.
- [ ] 7.2.4 Operations – **ENSURE** equipment is positioned as follows:
  - [ ] 7.2.4.1 Facility Cask and Facility Cask Transfer Car are removed from Facility Cask Loading Room.
  - [ ] 7.2.4.2 Facility Grapple and Shield Bell are lowered to Telescoping Port Shield.

**SIGN-OFF OPS**

**NOTE**

This NOTE applies to Section 8.0.

At any time during performance of this PM deficiencies may be documented in the Comments section of the WCD attachment, and notification made to the WGM/FWM concerning identified deficiencies.

**8.0 PERFORMANCE****8.1 LOCKOUT/TAGOUT (LO/TO)**

- 8.1.1 **ENSURE** components are positioned, tagged, and locked in accordance with WP 04-AD3011

**SIGN-OFF CRAFT****WARNING**

This WARNING applies to Step  8.1.3.

**Rotating Equipment/Pinch Point Hazard Exists**

Craft will be exposed to Rotating Equipment/Pinch Point Hazard due to possible movement of hoist and Facility Cask Rotating Device during absence of energy test.

- 8.1.2 **ENSURE** hands and limbs are kept clear of moving equipment.
- 8.1.3 Qualified Operator – **ATTEMPT** to operate hoist 41-H-022 and Facility Cask Rotating Device.
- 8.1.4 **VERIFY** hoist and Facility Cask Rotating Device do **NOT** operate.

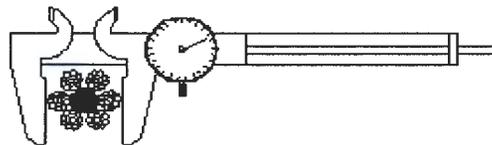
**SIGN-OFF CRAFT****8.2 WIRE ROPE INSPECTION AND LUBRICATION**

- 8.2.1 **USE** barriers in accordance with WP 12-IS.01-1, Industrial Safety Program – Barriers and Barricades.
- 8.2.2 **USE** Fall Protection Equipment in accordance with WP 12-IS.01-10, Industrial Safety Program – Fall Protection and Prevention.
- 8.2.3 **ENSURE** Safety Glasses with side shields are worn.
- 8.2.4 **LUBRICATE** toggle block with EP-2 grease.

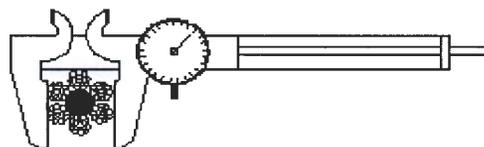
**NOTE**

This NOTE applies to Step [ ] 8.2.5 and Step [ ] 8.2.6.  
These steps may be performed concurrently.

- [ ] 8.2.5 **MEASURE** rope diameter approximately 12 inches above toggle block using digital caliper. (refer to Figure 1).  
(Acceptance Criteria: equal to or greater than 0.8125 inches)

**SIGN-OFF CRAFT**

Right Way



Wrong Way

Figure 1

- [ ] 8.2.6 **INSPECT** wire rope for the following conditions:
- Twelve randomly distributed broken wires in one rope lay.
  - Four broken wires in one strand in one rope lay.
  - Wear of one third of original diameter of outside individual wires.
  - Kinking, crushing, bird-caging, or any other damage resulting in distortion of wire rope structure.
  - Evidence of heat damage.
  - Corroded or broken wires at end connections
  - Rope terminations for worn, cracked or distorted parts such as pins, clamps, etc.

**SIGN-OFF CRAFT**

**CAUTION**

This CAUTION applies to Step [ ] 8.2.7.  
DO NOT over lubricate

[ ] 8.2.7 **LUBRICATE** wire rope with Wire Rope Lubricant, if dry.

[ ] 8.2.7.1 **WIPE** off excess.

**SIGN-OFF CRAFT****8.3 HOIST VISUAL INSPECTION**

[ ] 8.3.1 **INSPECT** hoist for the following:

- Deformed, cracked, or corroded member
- Loose fastener bolts or rivets
- Worn, cracked or distorted parts such as pins, bearings, shafts, gears, rollers, locking and clamping devices

**SIGN-OFF CRAFT****8.4 EQUIPMENT LUBRICATION**

[ ] 8.4.1 **ENSURE** Safety Glasses with side shields are worn.

[ ] 8.4.2 **LUBRICATE** the following with EP-2 Grease:

- Hoist drum bearings
- Sheave

[ ] 8.4.2.1 **WIPE** off excess grease.

**SIGN-OFF CRAFT**

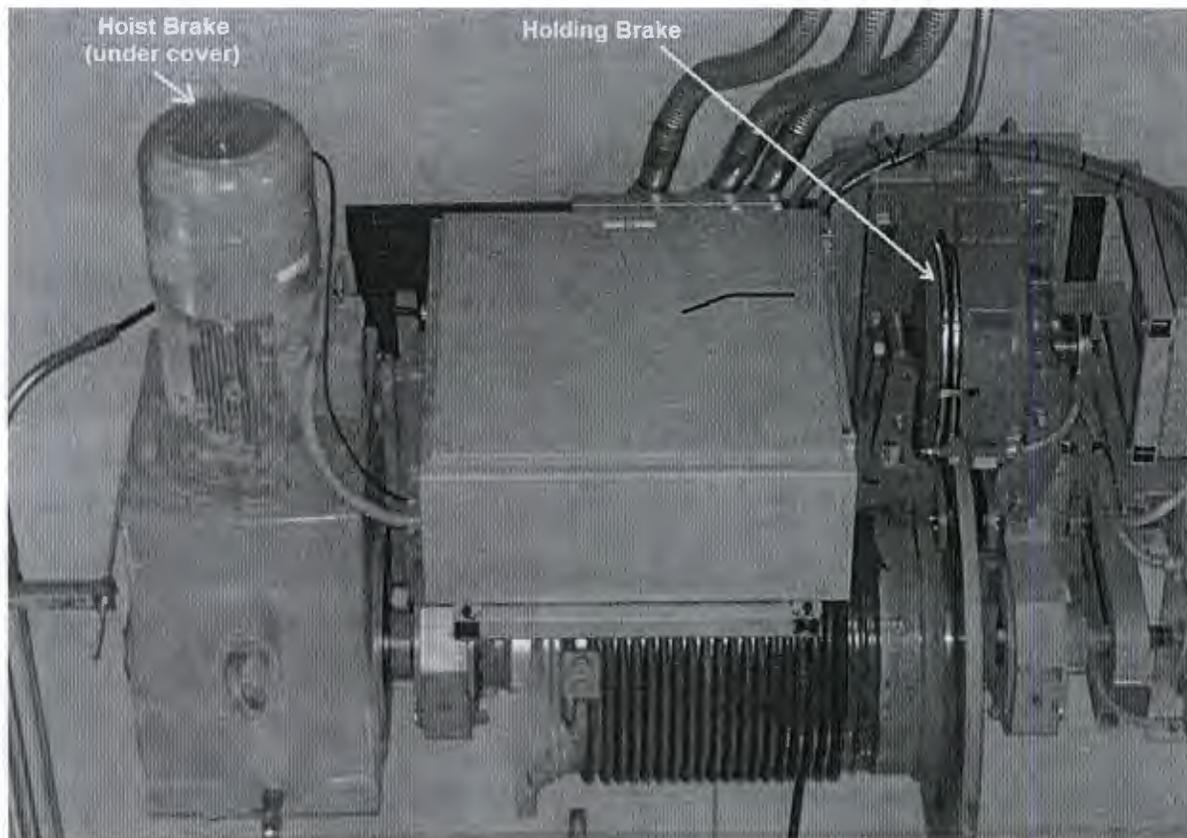
- [ ] 8.4.3 **IF** performing Quarterly PM only,  
**THEN CHECK** lubricant level in encoder worm gear reducers  
(Boston Gear R85980/710A-30-J) **AND ADD** SHC 634 lubricant if  
low.

**SIGN-OFF CRAFT**

- [ ] 8.4.4 **IF** performing Quarterly PM only,  
**THEN CHECK** lubricant level in hoist gearbox (Nord SK9086.1) **AND**  
**ADD** SHC 634 lubricant if low.

**SIGN-OFF CRAFT**

**8.5 HOIST BRAKE**



**Figure 2**

- [ ] 8.5.1 **REMOVE** Hoist Brake Motor cover (refer to Figure 2).

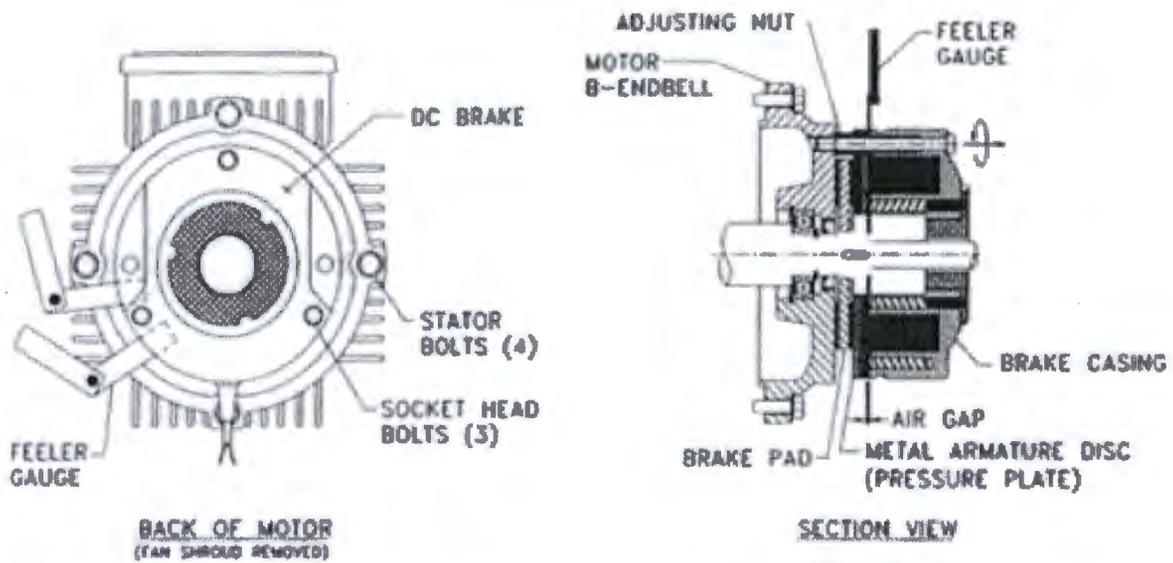


Figure 3 – Hoist Brake

- [ ] 8.5.2 **MEASURE** Hoist Brake air gap around socket head bolts (refer to Figure 3).  
(Acceptance Criteria:  $\geq 0.019 < 0.047$  inches)
- [ ] 8.5.2.1 **IF** air gap is NOT within tolerance,  
**THEN LOOSEN** socket head cap bolt attaching brake to motor B-endbell (refer to Figure 3).
- [ ] 8.5.2.2 **TURN** adjusting nut to adjust air gap.
- [ ] 8.5.2.3 **TIGHTEN** socket head cap bolt onto brake.
- [ ] 8.5.2.4 **REPEAT** Step [ ] 8.5.2 until no further adjustment is needed.

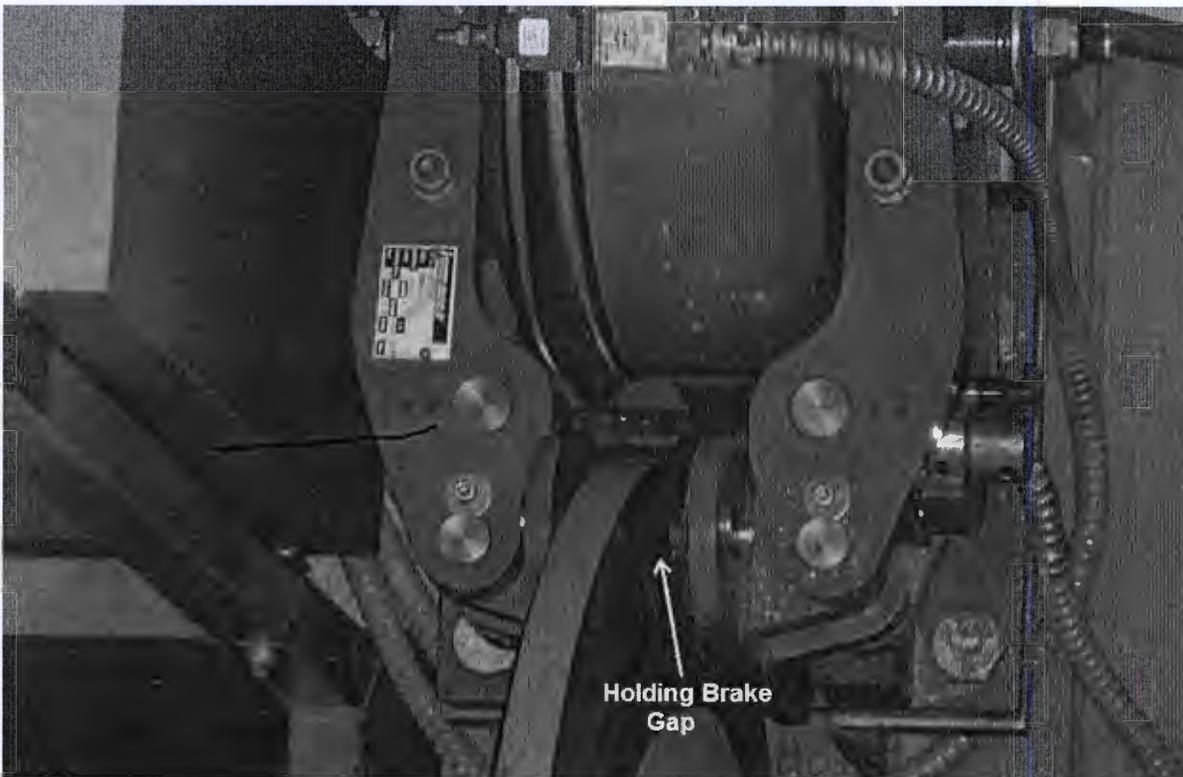
**SIGN-OFF CRAFT**

- [ ] 8.5.3 **MEASURE** thickness of magnetic disc brake pads (refer to Figure 3).  
(Acceptance Criteria:  $\geq 0.300$  inches).

**SIGN-OFF CRAFT**

- [ ] 8.5.4 **RE-INSTALL** Motor Cover.

**8.6 HOLDING BRAKE MAINTENANCE**



**Figure 4**

- [ ] 8.6.1 **DETERMINE** gap (refer to Figure 4).  
(Acceptance Criteria:  $\geq 0.019$  inches  $< 0.047$  inches)

**SIGN-OFF CRAFT**

- [ ] 8.6.2 **MEASURE** thickness of brake pads.  
(Acceptance Criteria:  $\geq 0.650$  inches)

**SIGN-OFF CRAFT**

- [ ] 8.6.3 **IF** performing QUARTERLY PM only,  
**THEN** N/A Section 8.7 and Section 8.8, **AND**  
**GO TO** Section 8.9.

## 8.7 REDUCER / WORM GEAR LUBRICATION (ANNUAL)

- [ ] 8.7.1 **ENSURE** Safety Glasses with side shields are worn when using lubricants.
- [ ] 8.7.2 **OBTAIN** Encoder Worm Gear lubricant sample.

### SIGN-OFF CRAFT

- [ ] 8.7.3 **DRAIN** lubricant from Encoder Worm Gear (2) (Boston Gear R85890/710A-30-2-3) **AND REFILL** with SHC 634 lubricant to full.

### SIGN-OFF CRAFT

---

#### NOTE

This NOTE applies to Section 8.8.

- Hoist gearbox lubricant is changed **ONLY** during Leap years (2012, 2016, etc.).
  - Up to 24 gallons of SHC 634 may be required.
- 

## 8.8 CHANGE LUBRICANT HOIST GEARBOX (ANNUAL – LEAP YEARS ONLY)

- [ ] 8.8.1 **ENSURE** Safety Glasses with side shields are worn when using lubricants.
- [ ] 8.8.2 **OBTAIN** Hoist Gear Box lubricant sample.

### SIGN-OFF CRAFT

- [ ] 8.8.3 **DRAIN** lubricant from Hoist Gear Box **AND REFILL** with SHC 634 lubricant to full.

### SIGN-OFF CRAFT

## 8.9 EQUIPMENT AND POWER LINEUP

- [ ] 8.9.1 **REMOVE** Maintenance locks and tags.

### SIGN-OFF CRAFT

- [ ] 8.9.2 OPS – **REMOVE** Lockout/Tagout (LO/TO).

### SIGN OFF OPS

## 8.10 POST MAINTENANCE TESTING

- [ ] 8.10.1 Operations – **PERFORM** pre-operational function checks per approved procedures.

### SIGN-OFF OPS

## 8.11 OPERATIONAL ACCEPTANCE

- [ ] 8.11.1 **ENSURE** the following:
- Deficiencies are documented in the Comments section,
  - WGM/FWM was notified of the deficiencies,
  - An AR has been generated for uncorrected deficiencies.
- [ ] 8.11.2 Operations **ACKNOWLEDGE** maintenance is field work complete.

### SIGN-OFF OPS

## 8.12 POST-JOB REVIEW

- [ ] 8.12.1 WGM/FWM or Designee, **CONDUCT** post-job review per WP 04-AD3030.

## 9.0 RECORDS

### 9.1 QUALITY RECORDS

- [ ] 9.1.1 This procedure generates the following Quality records in accordance with WP 13-1, Quality Assurance Program Description (QAPD).
- Attachment 1 – Sign-off Sheet

**ATTACHMENT 1 – SIGN-OFF SHEET**

**M&TE DOCUMENTATION**

Instrument Description	Instrument Number	Date Cal Due	M&TE Initials
Digital Caliper, Calibrated.			

**PREREQUISITES**

Section	Action	Initials
[ ] 7.2.4	Positioned equipment	OPS_____

**PERFORMANCE**

Section	Action	Initials
[ ] 8.1.1	Ensured LO/TO; placed Maintenance locks and tags	CRAFT_____
[ ] 8.1.4	Verified equipment did NOT operate	CRAFT_____
[ ] 8.2.5	Measured Wire Rope: _____ Inches SAT: <input type="checkbox"/> UNSAT: <input type="checkbox"/> (Acceptance Criteria: ≥0.8125 inches)	CRAFT_____
[ ] 8.2.6	Inspected Wire Rope: SAT: <input type="checkbox"/> UNSAT: <input type="checkbox"/>	CRAFT_____
[ ] 8.2.7	Lubricated Wire Rope	CRAFT_____
[ ] 8.3.1	Inspected hoist: SAT: <input type="checkbox"/> UNSAT: <input type="checkbox"/>	CRAFT_____
[ ] 8.4.2	Lubricated listed items	CRAFT_____
[ ] 8.4.3	Checked Reducer/Worm gear level: SAT: <input type="checkbox"/> ADDED: <input type="checkbox"/>	CRAFT_____ N/A_____
[ ] 8.4.4	Checked hoist gearbox level: SAT: <input type="checkbox"/> ADDED: <input type="checkbox"/>	CRAFT_____ N/A_____
[ ] 8.5.2	Measured air gap: _____ Inches SAT: <input type="checkbox"/> ADJUSTED: <input type="checkbox"/> (Acceptance Criteria: ≥0.019 <0.047 inches)	CRAFT_____

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Section	Action	Initials
[ ] 8.5.3	Measured Magnetic Disc Brake Pads: _____ Inches SAT: <input type="checkbox"/> UNSAT: <input type="checkbox"/> (Acceptance Criteria: ≥0.300 inches)	CRAFT_____
[ ] 8.6.1	Determined Holding Brake Gap: _____ inches SAT: <input type="checkbox"/> ADJUSTED: <input type="checkbox"/> (Acceptance Criteria: ≥0.019 inches <0.047 inches)	CRAFT_____
[ ] 8.6.2	Measured Brake pad thickness: _____ inches SAT: <input type="checkbox"/> UNSAT: <input type="checkbox"/> (Acceptance Criteria: ≥0.650 inches)	CRAFT_____
[ ] 8.7.2	(ANNUAL) Obtained Reducer / Worm Gear lubricant sample	CRAFT_____ N/A_____
[ ] 8.7.3	(ANNUAL) Changed Reducer / Worm Gear lubricant	CRAFT_____ N/A_____
[ ] 8.8.2	(ANNUAL, Leap Years Only) Obtained hoist gearbox lubricant sample	CRAFT_____ N/A_____
[ ] 8.8.3	(ANNUAL, Leap Years Only) Changed hoist gearbox lubricant	CRAFT_____ N/A_____
[ ] 8.9.1	Removed Maintenance locks and tags	CRAFT_____
[ ] 8.9.2	Removed Lockout/Tagout (LO/TO)	OPS_____
[ ] 8.10.1	Performed pre-operational function checks: SAT: <input type="checkbox"/> UNSAT: <input type="checkbox"/>	OPS_____
[ ] 8.11.2	Maintenance is field work complete	OPS_____



# PM041173

Revision 7

## GRAPPLE HOIST & STATIONARY ALIGNMENT SHEAVE 41-H-022 & 41-Z-023 ANNUAL

Maintenance Procedure

[WH03]

**APPROVED FOR USE**

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4.0 EQUIPMENT LIST ..... 4  
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**CHANGE HISTORY SUMMARY**

REVISION NUMBER	DATE ISSUED	DESCRIPTION OF CHANGES
7		Complete re-write/re-validation

**1.0 INTRODUCTION**

This procedure provides instructions for performing the **ANNUAL** preventive maintenance of Grapple Hoist 41-H-022 and Stationary Alignment Sheave 41-Z-023. This procedure provides instructions for the annual inspection, as identified in Hazardous Waste Facility Permit, WIPP, Permit # NM4890139088 TSDF, issued by the New Mexico Environmental Department (NMED).

Specifically, this work will accomplish the following:

- CHANGE LUBRICANT REDUCER/WORM GEAR
- CHANGE LUBRICANT HOIST GEARBOX
- EQUIPMENT AND POWER LINEUP
- TASK VERIFICATION
- RESTORATION TO OPERATIONAL STATUS

This procedure generates the following Quality records in accordance with WP 13-1, Quality Assurance Program Description (QAPD).

- Attachment 1 – Sign-off Sheet

**2.0 REFERENCES****BASELINE (DEVELOPMENTAL)**

WP 04-AD3011	Equipment Tagout/Lockout
WP 10-AD3005	Control and Use of Maintenance Locks
WP 10-2	MOIM
WP 10-WC3010	Maintenance PM/MWI Controlled Document Processing
WP 10-WC3011	Work Control Process
WP 12 IS.01	Industrial Safety Program
WP 12 IS.01-1	Industrial Safety Program-Barriers and Barricades
WP 13-1	Quality Assurance Program Description
DOE-STD-1090	Hoisting and Rigging
VARIOUS	Manufacturer's Operation and Maintenance Manuals
PROD-439	Site General JHA

## REFERENCED (REQUIRED ON-HAND)

PM411028 Wire Rope Inspection Grapple Hoist 41-H-022  
 PM411029 Grapple Hoist 41-H-022 Quarterly

## 3.0 MATERIAL LIST

ITEM	MATERIAL DESCRIPTION	QTY	UNIT	PR / WHSE STOCK NO.
1	Mobil SHC 634	1	Ea.	41-T-00023

## 4.0 EQUIPMENT LIST

## PERSONAL PROTECTIVE EQUIPMENT AND SPECIAL TOOLS

DESCRIPTION	USED AT STEP
GENERAL - SAFETY GLASSES W/ SIDE SHIELDS	[ ] 8.1

## SPECIAL EQUIPMENT

ITEM	DESCRIPTION
1	Man Lift

## 5.0 PRECAUTIONS

The JOB HAZARDS CHECKLIST indicates types of hazards that may be present during the performance of this work. See the indicated section for precautions and mitigating actions. **General hazards mitigated through training or the Site General JHA are identified on the included Hazard identification Summary (HIS).**

## JOB HAZARDS CHECKLIST

HAZARD	MITIGATED AT SECTION
CHEMICAL HAZARD	[ ] 8.1

**6.0 LIMITATIONS**

- 6.1. HOLD AND WITNESS POINTS  
None

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**NOTE**

This note applies to section  6.2

This procedure must be worked with and after the Monthly and Quarterly PMs.

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- 6.2. TAGOUT/LOCKOUT  
Tagout/Lockout performed on Monthly PM.
  
- 6.3. OTHER LIMITATIONS
  - Any employee who has a concern for employee safety, the safety of the environment, or the quality of the activity has the responsibility and authority to suspend the performance of that activity.
  - Work shall be stopped when instructions cannot be performed as written.
  - Steps in section 8.0 PERFORMANCE will be performed in sequence unless otherwise noted in the WCD.
  - Brackets at the beginning of steps are optional place-keeping aids, and may be checked off as work progresses.
  - All personnel affixing initials to these work instructions shall provide the information listed in the PERSONNEL DATA TABLE.
  - Barriers are required for this work package they will be constructed and installed in a manner that will ensure their integrity throughout the expected duration of use and environmental conditions.
  
- 6.4. REQUIRED QUALIFICATIONS AND TRAINING
  - Qualified Mechanic
  - Qualified Man Lift Operator

**7.0 PREREQUISITES**

- 7.1. ADMINISTRATIVE

- 7.1.1. Personnel performing this work review these work instructions and appropriate sections of the references listed in the REFERENCED (REQUIRED ON HAND) section.
- 7.1.2. Before starting work, Work Group Manager (WGM)/ Field Work Manager (FWM) conduct a pre-job safety meeting.

**SIGN-OFF WGM/FWM**

- 7.1.3. Record work order number on Attachments.
- 7.2. TASK PREPARATION
  - 7.2.1. Obtain materials and equipment shown in Materials and Equipment section.

---

**NOTE**

This note applies to section 8.0

Performance steps  8.1 and  8.2 may be worked in any order. Other performance steps shall be worked in order.

---

**NOTE**

This note applies to section 8.0

This procedure must be worked with and after the Monthly and Quarterly PMs.

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**8.0 PERFORMANCE**

**WARNING**

**Chemical Hazard Exists**

This warning applies to section  8.1 and  8.2  
Changing lubricants will expose personnel to Chemical Hazard – Lubricants.

- 8.1. CHANGE LUBRICANT REDUCER/WORM GEAR
  - 8.1.1. Ensure eye protection by wearing safety glasses with side shields.

- 8.1.2. Change lubricant in Reducer/Worm gear for the encoder (Boston Gear R85980/710A-30-Z-J) by draining the lubricant and refilling to the proper oil level with new lubricant.

**SIGN-OFF WORKER**

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**NOTE**

This note applies to section  8.2

Change lubricant in the hoist gearbox **ONLY** during Leap years (2012, 2016, 2020, etc.)

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8.2. CHANGE LUBRICANT HOIST GEARBOX

- 8.2.1. **IF** performing this procedure during a non leap year,  
**THEN** skip step  8.2.2  
**AND** N/A sign-off at step  8.2.2.
- 8.2.2. Change lubricant in the Hoist gearbox (Nord SK9086.1) by draining the lubricant and refilling to the proper oil level with new lubricant.

**SIGN-OFF WORKER**

8.3. EQUIPMENT AND POWER LINEUP

- 8.3.1. Remove barriers and properly store or discard.
- 8.3.2. Remove maintenance locks and tags and request Operations to remove Tagout/Lockout from the equipment.

**SIGN-OFF WORKER**

8.4. TASK VERIFICATION

None Required

8.5. RESTORATION TO OPERATIONAL STATUS

- 8.5.1. Notify Waste Handling Engineer (WHE) that the procedure is complete and that the equipment may be returned to operation status.

**SIGN-OFF WHE**

- 8.5.2. WGM/FWM conduct post-job review and initiate a work request for any deficiencies found.

**SIGN-OFF SHEET****PREREQUISITES**

Section	Action	Initials
[ ] 7.1.2	Before starting work, WGM/FWM conducted a pre-job safety meeting.	WORKER____ WORKER____ WGM/FWM____

**PERFORMANCE**

Section	Action	Initials
[ ] 8.1.2	Changed lubricant in Reducer/Worm gear for the encoder (Boston Gear R85980/710A-30-Z-J).	WORKER____
[ ] 8.2.2	Changed lubricant in the Hoist gearbox (Nord SK9086.1) by draining the lubricant and refilling to the proper oil level with new lubricant.	WORKER____
[ ] 8.3.2	Removed maintenance locks and tags and requested Operations to remove Tagout/Lockout from the equipment.	WORKER____
[ ] 8.5.1	Notified Waste Handling Engineer (WHE) that the procedure was complete and that the equipment may be returned to operation status.	WHE____

Comments:

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**PERSONNEL DATA**

<b>PRINTED NAME</b>	<b>SIGNATURE</b>	<b>INITIALS</b>	<b>DATE</b>