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**M E M O R A N D U M**

**TO:** Kevin Pierard, HWB Bureau Chief, File WIPP 2020  
**FROM:** Ricardo Maestas, Staff Manager, HWB WIPP Group  
**SUBJECT:** September 29-30, 2020 NMED HWB Inspection of the  
Waste Isolation Pilot Plant Shaft Temporary Authorization Activities  
**DATE:** October 14, 2020

**Attendees:**

<b>NMED:</b> Ricardo Maestas - HWB Avery Young - GWQB	<b>Facility:</b> Mike Brown-CBFO Rick Chavez-NWP Stewart Jones-NWP Bill Jaco-NWP
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**Purpose:** NMED HWB Inspection to verify status of Shaft construction and compliance with the April 24, 2020 Temporary Authorization ("TA") Approval.

**Photos Taken:** Yes.

**Attachments:**

- A. Selected Photos
- B. Inspection List
- C. Inspection Sign-In Sheet

**Summary:** No violations of the TA Approval conditions were observed. Compliance with the conditions of the WIPP Permit was confirmed. One concern was identified: The Permittees do not have a firm plan in place for completely halting construction by the October 24, 2020 expiration date of the TA term. Their current plan includes a "safing-down" period that is proposed to extend several weeks past the TA expiration date.

**Tuesday:** Ricardo Maestas, HWB WIPP Group Manager, and Avery Young, Groundwater Quality Bureau ("GWQB") permit writer, traveled in separate NMED vehicles to Carlsbad on Tuesday, September 29, 2020. Young oversees WIPP's GWQB discharge permit, which is currently being renewed, adding an additional salt cell and lagoon for excavated salt from the new shaft, among other modifications.

Maestas and Young caravanned from Santa Fe leaving at 8:30 am and arriving in Carlsbad at 1:30 pm. From a parking lot in town, Mike Brown from the Department of Energy Carlsbad Field Office (“DOE-CBFO”) and Rick Chaves from Nuclear Waste Partnership (“NWP”) (collectively, “the Permittees”) were called and informed that NMED was in town to perform an unannounced inspection of the WIPP Shaft Temporary Authorization activities.

NMED met personnel at the WIPP site at 2:45 pm. Temperature and proper face covering checks, as well as hard hat, reflective vest, and eye wear checks, were performed before entering the Shaft #5 construction area. Introductions followed by a Job Hazards Analysis discussion occurred before proceeding to inspect the new construction. A facility photographer took photos as part of this inspection. No obvious violations of the TA Approval conditions were observed. Compliance with the WIPP Permit appears to continue to be met. Departure from the WIPP site occurred at 6:00 pm when NMED inspectors headed back to Carlsbad to overnight.

**Wednesday:** In the morning, on September 30, 2020, Maestas and Young met with WIPP personnel in an outdoor park in Carlsbad. Masks and social distancing were in place due to the COVID-19 Executive Order. Additional information concerning the new Shaft schedule and the ability to safely shut-down operations on October 24, 2020 (the expiration date of the current TA) and on April 22, 2021 (expiration date should the TA be re-issued) was requested by Maestas.

Since the return to Santa Fe, further discussions with the Permittees have shaped the scope and response time for this request. NMED anticipates a timely response.

**Notes from Tuesday’s Inspection:**

- Harrison Western - Shaft Sinkers Joint Venture is the contractor for the shaft project.
- Shaft has diameter of 28 ft.
- Shaft depth is currently 116 ft.
- There will be a pause in further excavation for the next 2 months while the project focuses on installing the plenum, headframe, and large galloway.
- The small galloway should be completed the first week of October 2020 and will be lowered into the shaft in order to construct the concrete lining of the shaft with pours taking place every 5 ft moving from bottom to top.
- After lining has been completed, plenum will be installed, followed by lowering large galloway.
- Headframe and galloway should be operational by early January 2021.
- Site geologists (who previously mapped the other existing WIPP shafts (Air-Intake, Salt, Exhaust)) have been mapping the new shaft at 5-ft intervals and comparing samples to initial cores.
- Shaft should be around 167 ft depth in January 2021.
- Crews are managing water from excavation activities:
  - First encountered water at depth of 35 ft;
  - Current water flow is 1/3 gallon per minute;
  - Currently managing water in two 20,000 gal frack tanks; one tank is already full;
  - Samples are being taken and next steps will be evaluated;
  - Project would like to discuss with GWQB if using water as dust control is an option.
- Fire-water loop should be completed by early Fall 2021.
- Electrical substation has been completed and power will be connected soon.
- 22-acre Property Protection Area (“PPA”) fencing around shaft area should be completed first week of October 2020.

- PPA fence will not be released to WIPP Permittees for a couple of years but will be maintained by the contractor who has control of the shaft project area.
- Salt pond/pad are almost complete; Young of GWQB asked for pertinent information.
- Discussions at inspection site:
  - Project procedures or processes for safely winding down shaft work if necessary.
  - Project does have short-term and long-term plans for ceasing operations; short-term plan includes continuing to pay contractor to be on standby; long-term plan involves a change order to the contract. Both plans involve safeguarding hardware and equipment on site.
- Northern by-pass road has been completed and is in use. This by-pass has greatly reduced the traffic near the Shaft construction area and has been a great addition to the WIPP project, according to site personnel.

### **Attachment A: Selected Photos**

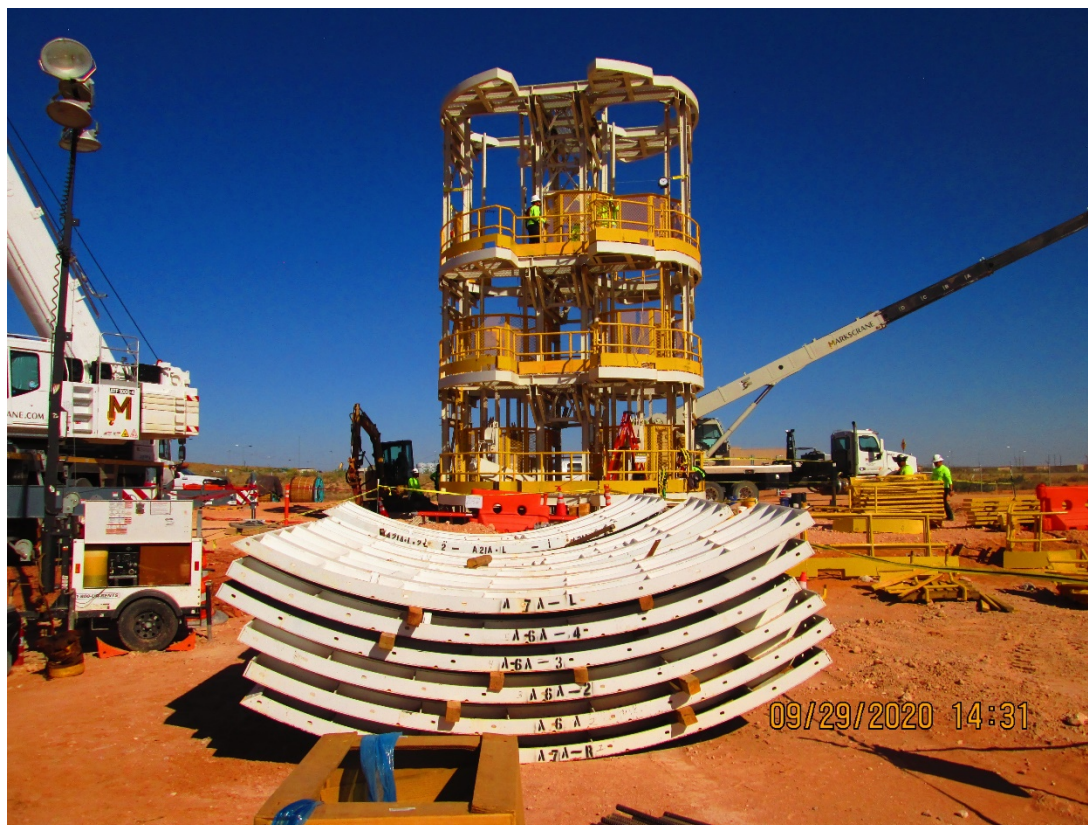


**Photo 1: NMED and WIPP Personnel looking into Shaft #5.**





**Photo 2: Shaft #5 is 28ft wide and 116ft deep. Notice small backhoe at the bottom.**



**Photo 3: Concrete forms for shaft lining in front and Large galloway being constructed in back.**





Photo 4: Excavation of plenum area, 45-degree angle that will connect to Shaft #5.



Photo 5: Plenum joint pictured behind vehicles. Plenum joint will connect to Shaft #5 near 50ft depth



## Attachment B: Inspection List (2 pages)

NMED HWB Inspection List			
<b>Purpose:</b>	Inspect Shaft construction to determine compliance with TA Approval conditions		
<b>Dates:</b>	September 29, 2020	<b>NMED Inspectors:</b>	Ricardo Maestas / Avery Young (GWAB)
<b>Announced or Unannounced:</b>	Unannounced Cm. Vbad - 1:30pm Site: 2:45pm	<b>Photos Attached:</b>	yes
<b>Personnel Contacted:</b>			
- Mike Brown - CBFO		Rafael Garcia - NWP	
- Stuart Jones - NWP			
- Mark Peary - NWP Dept. Project Manager		Sign-in sheet available.	
- Rick Chmura - NWP			
- Mark Reese - NWP			
<b>Inspection of Specific Areas</b>			
<b>New Shaft Area</b>	<b>Comment</b>		
Shaft: ✓	down to 116 feet - will stop excavation for about 2 months.		
Plenum: ✓	Construction ongoing - will be installed between Oct-Dec. 2020		
2 Intake Fans: ✓	not on site yet.		
Galloway - small: ✓	on site - construction almost complete - see photo		
Galloway - large: ✓	on site - construction ongoing - see photo		
<b>Associated with Shaft</b>	<b>Comment</b>		
Property Protection Area (PPA) - New Fence ✓	Almost complete - next week		
Fire-Water Loop/Hydrants: ✓	Work continues		
Electrical Substation: ✓	Next few months - Early Dec.		
Central Monitoring Room (CMR) Fan Controls:	Fans are not on site yet. CMR was not part of inspection.		
Other Structures:	- under construction - 2 20,000 gallon tanks. 1 is full.		
- Head frame			
- Frack tanks			
-			
<b>Checks for GWQB</b>	<b>Comment</b>		
SSP5: ✓	Completed - see photo		
Salt Cell 5: ✓	Completed - see photo		
Brine Retention Pond East and West:	Still under construction -		
SWP4: ✓	Completed - empty - see photo - Viewed from outside of PPA.		
<b>Other Areas</b>	<b>Comment</b>		
- North Bypass Road	Completed - effective in relieving traffic concerns around Shaft project.		
- Sewage Lagoons -	No issues - Avery Asked questions - last item before leaving WIPP site.		



## NMED HWB Inspection List

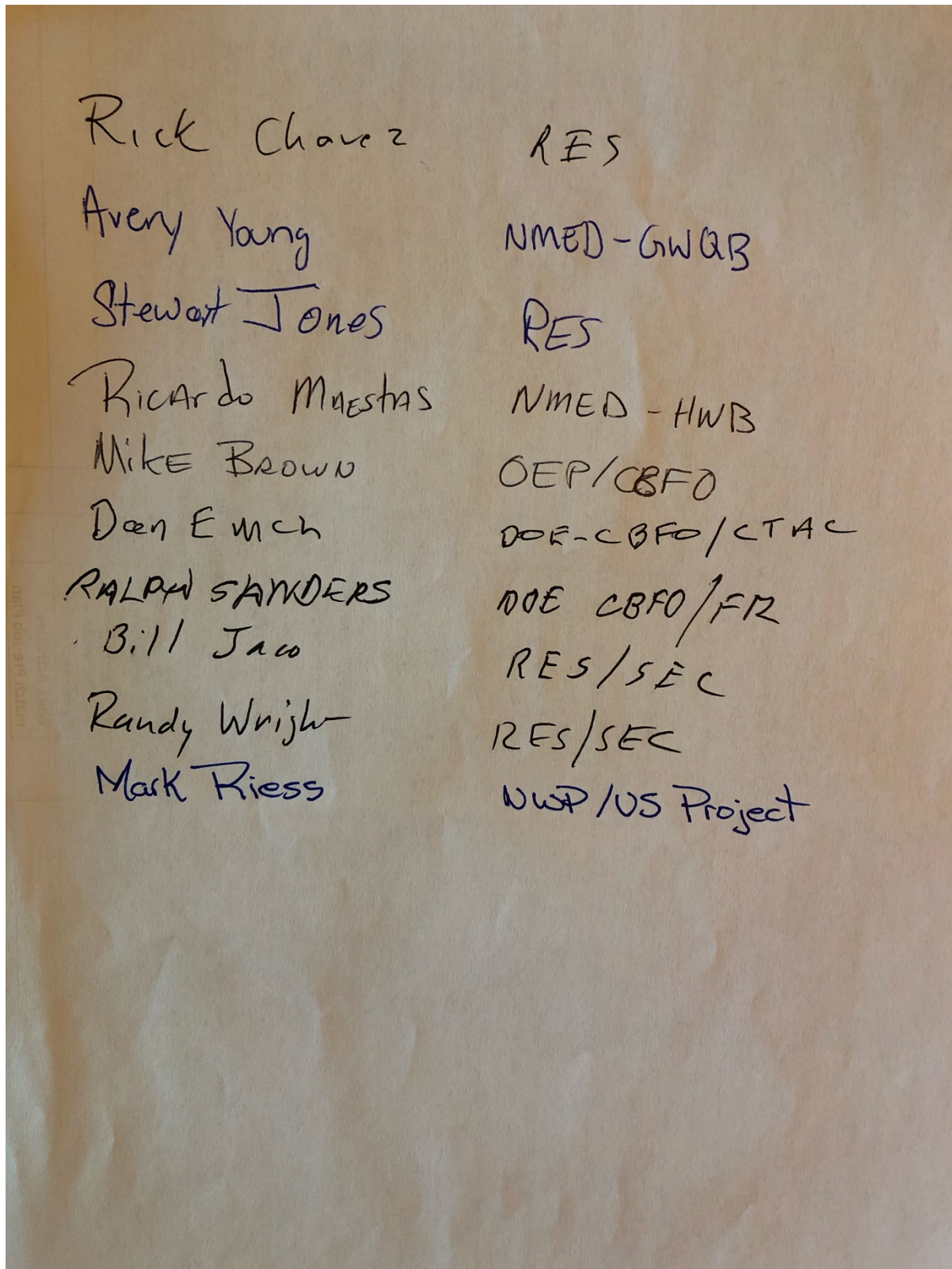
Temporary Authorization (TA) Checks against Class 3 Permit Modification Request specifications	
Item:	Issue Found:
1. Shaft 1200 ft west of Air Intake Shaft:	No issues. Design drawings and Surveys
2. Plenum connected to Shaft at 30-50 ft:	No issues - too photos of Plenum - will be installed Dec. 2020
3. 22-acre Property Protection Area (PPA):	No issues - Almost completed - will remain in control of Contractor
TA Checks against 9-17-2020 Status Update from Permittees	
Item:	Issue Found:
1. 79 ft Shaft Depth:	No issues - Cemented down to 116 feet See photo
2. Assembly of Surface Headframe Underway:	No issues - Head frame construction ongoing. Base has been constructed - see photo
TA Approval Checks (see information below)	
Item:	Issue Found:
1. Construction Outside Scope of PMR: (Yes or <u>No</u> )	None -
2. Noncompliance with Permit Conditions: (Yes or <u>No</u> )	None -
3. Discovery of Undisclosed Relevant Facts: (Yes or <u>No</u> )	None -
4. Endangerment of Human Health/Environment: (Yes or <u>No</u> )	WALK around - Weekly Environmental - no potential spills - No injuries to report.

From NMED's April 24, 2020 TA Approval (AR 200415):

1. A suspension or revocation of the TA for cause may result if the Permittees do not perform "...construction activities within the scope of the Class 3 PMR..."
2. "...During the execution of the tasks associated with the temporary authorization, noncompliance by the Permittees with any condition of the Permit, or any applicable requirement found within the Hazardous Waste Act or Hazardous Waste Management Regulations..." may result in a suspension or revocation of the TA for cause.
3. "...the discovery of the failure by the Permittees to disclose fully all relevant facts, or the Permittees' misrepresentation of any relevant facts, associated with this temporary authorization..." may result in a suspension or revocation of the TA for cause.
4. "...A determination that the temporary authorization activities endanger human health or the environment..." may result in a suspension or revocation of the TA for cause.



### Attachment C: Inspection Sign-In Sheet



A photograph of a handwritten sign-in sheet on lined paper. The sheet lists names and their corresponding roles or affiliations. The handwriting is in blue ink. The names are written in all caps, while the roles are in title case. The roles include RES, NMED-GWQB, NMED-HWB, OEP/CBFO, DOE-CBFO/CTAC, DOE CBFO/FM, RES/SEC, RES/SEC, and NWP/US Project.

Rick Chavez	RES
Avery Young	NMED-GWQB
Stewart Jones	RES
Ricardo Maestas	NMED-HWB
Mike Brown	OEP/CBFO
Don Emch	DOE-CBFO/CTAC
RALPH SANDERS	DOE CBFO/FM
Bill Jacob	RES/SEC
Randy Wright	RES/SEC
Mark Riess	NWP/US Project