



## Department of Energy

Washington, DC 20585

February 8, 2023

Mr. Jeff Scott  
President  
North Wind Portage, Inc.  
2800 Solway Road  
Knoxville, Tennessee 37931

WEA-2023-01

Dear Mr. Scott:

This letter refers to the Department of Energy's (DOE) investigation into the facts and circumstances associated with the bulldozer track roller hand crush injury (amputation) event that occurred on December 15, 2021, at the Moab Uranium Mill Tailings Remedial Action Project Site. The DOE Office of Enterprise Assessments' Office of Enforcement provided the results of the investigation to North Wind Portage, Inc. (NWP) in an investigation report dated October 19, 2022. An enforcement conference was convened on November 29, 2022, with you and members of your staff to discuss the report's findings and NWP's response. A summary of the enforcement conference and attendance roster are enclosed.

DOE considers the bulldozer track roller hand crush injury (amputation) event to be of high safety significance. The worker's injury was severe requiring surgical amputation of portions of the injured worker's left middle and ring fingers. The event occurred when a worker was installing new track rollers on a bulldozer using a boom crane winch line, rigged with a sling, to lift and position a 142-pound track roller into a track bar. The track roller shifted out of the sling and fell approximately 18 inches, crushing two fingers of the worker's left hand against the concrete floor. The event revealed deficiencies in: (1) hazard identification and assessment, (2) hazard prevention and abatement, and (3) emergency response and training and information.

Based on an evaluation of the evidence in this matter, including information presented at the enforcement conference, DOE concludes that NWP violated requirements prescribed under 10 C.F.R. Part 851, *Worker Safety and Health Program*. Accordingly, DOE hereby issues the enclosed Preliminary Notice of Violation (PNOV) which cites two Severity Level I violations and one Severity Level II violation with a total base civil penalty, before mitigation, of \$265,000.

NWP conducted a root cause analysis that included an extent-of-condition review. NWP developed eight corrective actions to prevent recurrence of this event and to



address the conditions found in the extent-of-condition review. NWP's corrective actions to prevent recurrence partially address the noncompliances identified in the PNOV, as explained below.

The Office of Enforcement determined that NWP's corrective actions partially address the noncompliance related to identifying and assessing hazards of preventive and corrective maintenance activities. While NWP's corrective actions included revising the job safety analysis to incorporate use of the lifting aid for track rollers, they did not address noncompliances related to breaking out maintenance tasks on the job safety analysis into discrete activities/tasks, differentiating between routine and nonroutine activities, or identifying and assessing hazards associated with each work activity as required by NWP's work planning and control procedure. Also, the corrective actions did not address compliance with manufacturer requirements during maintenance activities as required by NWP's activity-level hazard analysis. As a result, the Office of Enforcement grants a 10 percent reduction in the base civil penalty for the Severity Level I violation for hazard identification and assessment.

Furthermore, the Office of Enforcement determined that NWP's corrective actions adequately address the noncompliance related to securely attaching track rollers to the sling but did not address noncompliances related to selecting hazard controls based on the Part 851 hierarchy of controls, NWP's hoisting and rigging program, and Occupational Safety and Health Administration requirements for use of slings and truck cranes. As a result, the Office of Enforcement grants a 20 percent reduction for NWP's corrective actions, in the base civil penalty for the Severity Level I violation for hazard prevention and abatement.

Finally, the Office of Enforcement determined that NWP's corrective actions adequately address the noncompliance related to developing a formal skill-of-the-craft process to qualify mechanics to perform assigned duties but did not address the noncompliance related to emergency response. As a result, the Office of Enforcement grants a 20 percent reduction for NWP's corrective actions, in the base civil penalty for the Severity Level II violation for emergency response and training and information.

As a result of mitigation for NWP's corrective actions, the total proposed civil penalty is \$222,600.

Pursuant to 10 C.F.R. § 851.42, *Preliminary Notice of Violation*, you are obligated to submit a written reply within 30 calendar days of receipt of the enclosed PNOV and to follow the instructions specified in the PNOV when preparing your response. If you fail to submit a reply within the 30 calendar days, then in accordance with 10 C.F.R. § 851.42(d), you relinquish any right to appeal any matter in the PNOV, and the PNOV, including the proposed civil penalty assessment, will constitute a final order.

After reviewing your reply to the PNOV, including any proposed additional corrective actions entered into DOE's Noncompliance Tracking System, DOE will determine whether any further activity is necessary to ensure compliance with DOE worker safety and health requirements. DOE will continue to monitor the completion of corrective actions until this matter is fully resolved.

Sincerely,

A handwritten signature in black ink, appearing to read 'Anthony C. Pierpoint', with a long horizontal flourish extending to the right.

Anthony C. Pierpoint  
Director  
Office of Enforcement  
Office of Enterprise Assessments

Enclosures: Preliminary Notice of Violation (WEA-2023-01)  
Enforcement Conference Summary and Attendance Roster  
Electronic Funds Transfer Instructions

cc: Matthew Udovitsch, CC  
Greg Church, North Wind Portage, Inc.

**Preliminary Notice of Violation**

North Wind Portage, Inc.  
Moab Uranium Mill Tailings Remedial Action Project Site

WEA-2023-01

A U.S. Department of Energy (DOE) investigation into the facts and circumstances associated with the December 15, 2021, hand crush injury (amputation) event at the Moab Uranium Mill Tailings Remedial Action Project Site revealed violations of DOE worker safety and health requirements by North Wind Portage, Inc. (NWP). The event resulted in a worker receiving a crush injury to their left-hand during installation of a 142-pound track roller on a Caterpillar model D6 bulldozer. The injury was severe, requiring surgical amputation of portions of the injured worker's left middle and ring fingers.

DOE provided NWP with an investigation report dated October 19, 2022, and convened an enforcement conference with NWP representatives on November 29, 2022, to discuss the report's findings and NWP's response. A summary of the conference and attendance roster are enclosed.

Pursuant to Section 234C of the Atomic Energy Act of 1954, as amended (codified at 42 U.S.C. § 2282c), and DOE regulations set forth at 10 C.F.R. Part 851 (Part 851), *Worker Safety and Health Program*, DOE hereby issues this Preliminary Notice of Violation (PNOV) to NWP. The violations included deficiencies in: (1) hazard identification and assessment, (2) hazard prevention and abatement, and (3) emergency response and training and information. DOE has grouped and categorized the violations as two Severity Level I violations and one Severity Level II violation.

Severity Levels are explained in Part 851, appendix B, *General Statement of Enforcement Policy*. Subparagraph VI(b)(1) states that “[a] Severity Level I violation is a serious violation. A serious violation shall be deemed to exist in a place of employment if there is a potential that death or serious physical harm could result from a condition which exists, or from one or more practices, means, methods, operations, or processes which have been adopted or are in use, in such place of employment.”

Subparagraph VI(b)(2) states that “[a] Severity Level II violation is an other-than-serious violation. An other-than-serious violation occurs where the most serious injury or illness that would potentially result from a hazardous condition cannot reasonably be predicted to cause death or serious physical harm to employees but does have a direct relationship to their safety and health.”

In consideration of the mitigating factors, DOE imposes a total proposed civil penalty of \$222,600.

As required by 10 C.F.R. § 851.42(b) and consistent with Part 851, appendix B, the violations are listed below. If this PNOV becomes a final order, then NWP must prominently post a copy of this PNOV at or near the location where the violation occurred until the violation is corrected in accordance with 10 C.F.R. § 851.42(e).

## I. VIOLATIONS

### A. Hazard Identification and Assessment

Title 10 C.F.R. § 851.10, *General requirements*, subsection (a), states that “[w]ith respect to a covered workplace for which a contractor is responsible, the contractor must: (1) [p]rovide a place of employment that is free from recognized hazards that are causing or have the potential to cause death or serious physical harm to workers; and (2) [e]nsure that work is performed in accordance with: (i) [a]ll applicable requirements of [Part 851]; and (ii) [t]he worker safety and health program for that workplace.”

Title 10 C.F.R. § 851.21, *Hazard identification and assessment*, subsection (a), states that “[c]ontractors must establish procedures to identify existing and potential workplace hazards and assess the risk of associated worker injury and illness. Procedures must include methods to... (5) [e]valuate operations, procedures, and facilities to identify workplace hazards; [and] (6) [p]erform routine job activity-level hazard analyses.”

NWP document DOE-EM/GJ3002, *Moab UMTRA Project 10 CFR 851 Worker Safety and Health Program (WSHP) Description*, revision 9, April 2021, section 4.3, *Hazard Identification and Assessment*, states that “[t]he identification and analysis of workplace hazards is part of the work planning process...to ensure the hazards associated with work activities and operations are clearly understood and appropriately managed.” Section 4.3.5, states that “[t]he [i]ntegrated [w]ork [p]lan/[j]ob [s]afety [a]nalysis (IWP/JSA) and supporting documents...serve as the primary activity level work control documents...” Additionally, Attachment 1, *Crosswalk between the Requirements of 10 CFR 851 and the Remedial Action Contractor/Technical Assistance Contractor (RAC/TAC) Implementing Documents*, states that “RAC implementing documents [include] DOE-EM/GJ1038 *Moab UMTRA Project Health and Safety Plan* and DOE-EM/GJ1550, *Moab UMTRA Project Integrated Work Planning and Control Procedure*.”

NWP document DOE-EM/GJ1550, *Moab UMTRA Project Integrated Work Planning and Control Procedure*, revision 12, December 2019, section 5.4, states that “[c]ategory 2 IWPs/JSAs: contain work steps, hazards, and controls [that] are easily understood by the worker(s) and appropriate for the complexity of the work.” Section 5.4.1, states that “[f]or the hazards to be identified correctly and the work to be performed safely, the overall scope of work must be defined into discrete and discernible activities/tasks and associated steps so that the work is accurately described, bounded, and clearly communicated through the IWP/JSA to the supervisors/leads and workers.” Section 5.4.3, states that “[w]hen completing the...IWP/JSA development team members shall consider the following

guidelines...[t]o ensure worker understanding of the hazards identified during the hazard analysis process: [i]nclude...the hazards of the work tasks/steps the workers are actually performing.”

NWP document MB-IWP/JSA-002, *General Equipment Maintenance*, requires preventive maintenance to be performed “in accordance with the...operator’s manual and the service manual.” Additionally, it requires corrective maintenance to be performed “according to the manufacturer’s recommendations and specifications....”

Contrary to these requirements and as evidenced by the following facts, NWP did not comply with applicable requirements of Part 851 and the approved WSHP for the workplace. Specific examples include the following:

1. NWP did not adequately identify and assess the hazards of performing preventive and corrective maintenance activities. Specifically, NWP’s activity-level hazard analysis did not reduce maintenance tasks into discrete activities/tasks, differentiate between routine and nonroutine activities, or include all hazards associated with each work activity, contrary to NWP’s work planning and control procedure. For example, the hazards associated with lifting a track roller using a sling rigged to a boom crane were not identified or assessed.
2. NWP did not require compliance with the manufacturers’ service manuals or the manufacturers’ recommendations and specifications during the performance of maintenance activities, contrary to NWP’s activity-level hazard analysis. Specifically, the investigation revealed that management allowed required corrective maintenance steps to be circumvented based on an informal skill-of-the-craft process, potentially exposing workers to hazards that were not identified or assessed.

Collectively, these noncompliances constitute a Severity Level I violation.

Base Civil Penalty – \$106,000

Proposed Civil Penalty (with 10 percent reduction for NWP’s corrective actions) – \$95,400

## **B. Hazard Prevention and Abatement**

Title 10 C.F.R. § 851.22, *Hazard prevention and abatement*, subsection (a), states that “[c]ontractors must establish and implement a hazard prevention and abatement process to ensure that all identified and potential hazards are prevented or abated in a timely manner.” Subsection (b), states that “[c]ontractors must select hazard controls based on the following hierarchy... (2) engineering controls where feasible and appropriate; (3) work practices and administrative controls that limit worker exposures....”

Title 10 C.F.R. § 851.23, *Safety and health standards*, subsection (a), states that “[c]ontractors must comply with the following safety and health standards that are applicable to the hazards at their covered workplace... (3) Title 29 [C.F.R.] Part 1910, *Occupational Safety and Health Standards*....”

Title 29 C.F.R. § 1910.180, *Crawler locomotive and truck cranes*, subsection (h)(4), states that while “[h]olding the load (i) the operator shall not be permitted to leave his position at the controls while the load is suspended.”

Title 29 C.F.R. § 1910.184, *Slings*, subsection (c), states that “[w]henver any sling is used, the following practices shall be observed... (6) slings shall be securely attached to their loads...and (9) all employees shall be kept clear of loads about to be lifted and of suspended loads.”

NWP document DOE-EM/GJ3002, *Moab UMTRA Project 10 CFR 851 WSHP Description*, revision 9, April 2021, section 4.4, *Hazard Prevention and Abatement*, states that “[h]azard controls are selected based on the following hierarchy...[u]se of engineering controls where feasible and appropriate. Application of work practices and administrative controls that limit worker exposures.” Additionally, it states that “IWPs/JSAs are used extensively both to identify hazards and to implement controls for ongoing work for potentially hazardous activities.”

NWP document DOE-EM/GJ1038, *Moab UMTRA Project Health and Safety Plan*, revision 11, September 2021, section 4.3.5, states that “[h]oisting and rigging operations shall comply with and be executed in accordance with the *Moab UMTRA Project Hoisting and Rigging Procedure (DOE-EM/GJ1613)*.”

NWP document DOE-EM/GJ1550, *Moab UMTRA Project Integrated Work Planning and Control Procedure*, revision 12, December 2019, section 5.3.7, states that “[s]upervisors/leads are responsible for ensuring hazard controls are based on the hierarchy of control principles (e.g., elimination, substitution, engineering, administrative, PPE) and clearly delineated in the IWPs/JSAs.”

NWP document DOE-EM/GJ1613, *Moab UMTRA Project Hoisting and Rigging Program*, revision 2, January 2014, section 7.1, states that “[s]lings shall be securely attached to their load.” Additionally, Section 9.0, *References and Source Documentation*, incorporates 29 [C.F.R.] § 1910.180, *Crawler locomotive and truck cranes*, and 29 [C.F.R.] § 1910.184, *Slings*.

NWP document MB-IWP/JSA-002, *General Equipment Maintenance*, states that “[f]or standard lifts, the lift supervisor, qualified crane operator, and qualified rigger, will establish and document on a [*Standard Lift Plan*] (HS-F-009) the appropriate means, methods, and equipment necessary to perform a safe lift.”

Contrary to these requirements and as evidenced by the following facts, NWP did not comply with regulatory requirements for the use of slings and truck cranes and with the approved WSHP requirements for a safe lift, and did not adequately abate hazards to limit worker exposures. Specific examples include the following:

1. NWP did not require the lifting sling to be securely attached to the track roller during the installation activity. Specifically, the investigation revealed that NWP allowed the work practice of placing the track roller into the sling, perpendicular to the circumference of the roller, without securely attaching the sling to the roller. Consequently, the worker was injured when the track roller slipped out of the sling. Additionally, NWP was aware of previous incidents where the track roller slipped from the sling and did not abate this hazard.
2. NWP did not select hazard controls to keep workers clear of suspended loads based on the Part 851 hierarchy of controls. Specifically, the investigation revealed that NWP relied on the use of an administrative control (training on hand position to keep clear of the suspended load) rather than an engineering control to prevent the track roller from slipping out of the sling.
3. NWP did not document on the *Standard Lift Plan* form the appropriate means, methods, and equipment necessary to perform a safe lift for the standard lift of the track roller during the rebuilding of the undercarriage on a D6 bulldozer, as required by the IWP/JSA.
4. NWP did not require the mechanic operating the boom crane to remain in positive control of the remote controller while the load was suspended. Specifically, the investigation revealed that NWP used a one-person process to position and place the track roller, which required the mechanic to lay on the ground near the undercarriage while guiding the suspended load with one hand and operating the crane with a remote controller in the other hand.

Collectively, these noncompliances constitute a Severity Level I violation.

Base Civil Penalty – \$106,000

Proposed Civil Penalty (with 20 percent reduction for NWP’s corrective actions) – \$84,800

### **C. Emergency Response and Training and Information**

Title 10 C.F.R. § 851.24, *Functional areas*, subsection (b), states that “[i]n implementing the structured approach required by paragraph (a) of this section, contractors must comply with the applicable standards and provisions in appendix A, of this part, entitled Worker Safety and Health Functional Areas.” Appendix A of Part 851, section 2, *Fire Protection*, subsection (a), states that “[c]ontractors must implement a comprehensive fire safety and emergency response program to protect workers commensurate with the nature of the work that is performed.”

Title 10 C.F.R. § 851.25, *Training and information*, subsection (a), states that “[c]ontractors must develop and implement a worker safety and health training and information program to ensure that all workers exposed or potentially exposed to hazards are provided training and information on that hazard in order to perform their duties in a safe and healthful manner.”



NWP document DOE-EM/GJ3002, *Moab UMTRA Project 10 CFR 851 WSHP Description*, revision 9, April 2021, section 4.6.2, incorporates DOE-EM/GJ2071, *Moab UMTRA Project Emergency Medical Response* into the WSHP. Paragraph 4.6.4, states that “[l]ocal emergency medical services [EMS] will provide emergency medical care for contractor personnel at the [p]roject. Once the patient is stabilized, he or she will be transferred to an off-site medical facility for continued medical care as warranted.” Section 4.7, *Training and Information*, states that “...training and qualification requirements are identified for persons participating in specific work activities.” Additionally, Attachment 1, *Crosswalk between the Requirements of 10 CFR 851 and the RAC/TAC Implementing Documents*, states that “RAC implementing documents [include] DOE-EM/GJ1533, *Moab UMTRA Project Training Manual*.”

NWP document DOE-EM/GJ2071, *Moab UMTRA Project Emergency Medical Response Program*, revision 3, October 2019, section 3.0, states that “[r]esponsibilities of First Aid CPR/AED personnel include...[d]etermining if the event is life-threatening...If the event is not life-threatening, responsibilities include notifying the *Incident Commander* and requesting additional support...If the scene is safe to enter, providing the level of medical health care specified within the scope of practice required of a First Aid CPR/AED personnel; Responders must stay within their scope of practice. Continuing care and notifying the *Incident Commander* of any changes during treatment. Transferring care to the responding agencies.” Section 4.0, *Medical Emergency Protocols*, states that “...all project employees are responsible for initiating immediate actions identified in the [m]edical [e]mergency [i]nstructions (see [a]ttachment 1).” Attachment 1, *Medical Emergency Instructions*, states that “[a]ctions do not have to be performed in a certain sequence. Immediate actions [include] [d]ial “911” to request EMS. Call the Emergency Response Coordinator (*Safety Officer*). Warn others in the area of the emergency using whatever means available...Be prepared to meet the EMS on arrival and direct them to the accident scene.”

NWP document MB-IWP/JSA-001, *General Site Hazards*, revision 17 (September 28, 2021), *Bounding Conditions*, item 2, states for “*Emergency [c]onditions* (e.g., personal injury, medical emergency, vehicle accident, fire or high fire explosion potential, bomb threat) to [s]top work. Immediately notify [Health and Safety] H&S and supervisor. Follow [the] emergency response protocol.”

NWP document DOE-EM/GJ1533, *Moab UMTRA Project Training Manual*, revision 4, October 2021, section 3.1, *Formal Training*, states that “[f]ormal instruction...focuses on specific technical or administrative principles essential to the performance of assigned duties. Its purpose is to qualify individuals to perform tasks...” Section 3.2, *On-the-Job Training [OJT]*, states that “OJT is training conducted and evaluated in the normal work environment by a qualified OJT instructor. OJT requires...the documentation of the OJT process.” Section 3.5, *Equivalent Training*, states that “[i]f an employee provides documentation or certification that indicates previous work experience or training fulfills a training requirement, the employee’s manager or supervisor should request approval by the

appropriate organization...and Training [organization]. A copy of all correspondence will be placed in the employee's training file...once equivalent training is approved....”

Contrary to these requirements and as evidenced by the following facts, NWP did not comply with the approved WSHP for the workplace when responding to the hand crush injury (amputation) event. Furthermore, NWP did not comply with applicable requirements of Part 851 and the approved WSHP for the workplace with respect to defining and documenting training and qualification requirements for mechanics. Specific examples include the following:

1. NWP did not follow the emergency response protocol of calling 911 to request EMS to provide medical care, stabilize, and transport the injured worker as required by NWP response procedures for a personal injury.
2. NWP did not establish procedures and/or requirements to train and qualify mechanics on preventive maintenance and corrective maintenance activities/tasks and develop a formal skill-of-the-craft process to qualify mechanics to perform assigned duties. Specifically, NWP relied on an informal OJT process and equivalent training approval process that are not documented, contrary to the *Moab UMTRA Project Training Manual* requirement to qualify mechanics to perform assigned duties.

Collectively, these noncompliances constitute a Severity Level II violation.

Base Civil Penalty – \$53,000

Proposed Civil Penalty (with 20 percent reduction for NWP's corrective actions) – \$42,400

## II. REPLY

Pursuant to 10 C.F.R. § 851.42(b)(4), NWP is hereby obligated to submit a written reply within 30 calendar days of receipt of this PNOV. The reply should be clearly marked as a “Reply to the Preliminary Notice of Violation.”

If NWP chooses not to contest the violations set forth in this PNOV and the proposed remedy, then the reply should state that NWP waives the right to contest any aspect of this PNOV and the proposed remedy. In such case, the total proposed civil penalty of \$222,600 must be remitted within 30 calendar days after receipt of this PNOV by electronic funds transfer (EFT). EFT instructions are enclosed separately. To remit the civil penalty by check, please have your accounting department contact the Office of Enforcement's Docket Clerk at (301) 903-4033 or [enforcementdocketclerk@hq.doe.gov](mailto:enforcementdocketclerk@hq.doe.gov) for instructions. This PNOV will constitute a final order upon the filing of the reply.

If NWP disagrees with any aspect of this PNOV, including the proposed civil penalties, then as applicable and in accordance with 10 C.F.R. § 851.42(c)(1), the reply must: (1) state any facts, explanations, and arguments that support a denial of an alleged violation; (2) demonstrate any extenuating circumstances or other reason why the civil penalties should not be imposed or should be further mitigated; and (3) discuss the relevant authorities that support the position

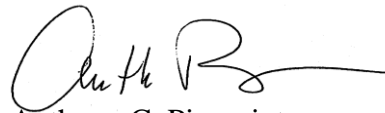
asserted, including rulings, regulations, interpretations, and previous decisions issued by DOE. In addition, 10 C.F.R. § 851.42(c)(2) requires that the reply include copies of all relevant documents.

If NWP fails to submit a written reply within 30 calendar days of receipt of this PNOV, then pursuant to 10 C.F.R. § 851.42(d), NWP relinquishes any right to appeal any matter in this PNOV and this PNOV will constitute a final order.

Please submit your reply to the Director, Office of Enforcement by email to [enforcementdocketclerk@hq.doe.gov](mailto:enforcementdocketclerk@hq.doe.gov). A copy of the reply should also be sent to the EM Moab UMTRA Federal Cleanup Director.

### III. CORRECTIVE ACTIONS

Corrective actions that have been or will be taken to avoid further violations should be delineated with target and completion dates in DOE's Noncompliance Tracking System.



Anthony C. Pierpoint  
Director  
Office of Enforcement  
Office of Enterprise Assessments

Washington D.C.  
This 8th day of February 2023