



August 24, 2020

Dr. Weiquan Dong, PE
Bureau of Industrial Site Cleanup
Nevada Division of Environmental Protection
375 E. Warm Springs Rd.
Suite 200
Las Vegas, Nevada 89119

Subject: Contingency Plan for GW-11 Initial Pre-Closure Investigation Activities

Dear Dr. Dong:

At the direction of the Nevada Environmental Response Trust (NERT or Trust), Tetra Tech, Inc. (Tetra Tech) has prepared this Contingency Plan for implementing an initial embankment characterization of the GW-11 Pond and a geotechnical evaluation of the shared embankment between the GW-11 Pond and the WC-West¹ pond. The attached Figure 1 shows the location of the GW-11 Pond and WC-West pond on the NERT site.

In 2015, an evaluation of the integrity of the GW-11 Pond liner indicated degradation of the primary liner was occurring and continued degradation would occur. In response, the Trust initiated an active leakage monitoring program in late 2015 and is ongoing. Since 2015, leakage data has been generally consistent and has not demonstrated a material change in leakage rates. Additionally, the pond was reclassified to a High Hazard Structure by the Nevada Division of Water Resources on January 15, 2019. The Trust presented its intent to permanently close the GW-11 Pond either in connection with or ahead of implementation of the NERT final remedy for Operable Unit 1. The Trust has conducted various investigations in and around the GW-11 Pond to support its closure planning and the work described in this contingency plan is a continuation of this effort. The results of this and prior investigations will be included as an appendix to the GW-11 Pond Closure Plan currently anticipated to be submitted in late 2020.

In connection with the Trust's continued effort to collect data to support the preparation of the GW-11 Pond Closure Plan, Tetra Tech will advance and backfill ten soil borings to an approximate depth of 25 feet and two deeper soil borings to a depth of approximately 50 feet along the GW-11 embankment to support this program (Figure 2). The soil borings will be backfilled with bentonite chips or slurry. Soil cuttings from boring will be placed in roll-off bin. Investigation derived waste (IDW), including soil cuttings from borings, will be managed in accordance with Section 4.2.1 of the NERT Site Management Plan, Revision 5, dated December 31, 2019 (SMP), characterized in accordance with Section 4.2.2.1 of the SMP, and taken off site for disposal following the investigation. Some of the activities performed as part of this scope of work will occur within 50 feet of GWETS components or monitoring wells.

¹ The WC-West pond is managed by EMD Acquisition, LLC

Tetra Tech will oversee the drilling and ensure protection measures to mitigate risk to existing GWETS components are implemented. This Contingency Plan summarizes the identified actions that will be followed to protect GWETS components and monitoring wells and identifies response procedures that will be followed in the event of a release of groundwater. The activities will be performed in accordance with Section 5.7 of the SMP to prevent damage to any GWETS components and monitoring wells.

Protection Measures

Tetra Tech personnel and its subcontractors will protect the GWETS components and monitoring wells by using the following precautions and procedures during investigation activities:

- Cones, caution tape, or safety fence will be installed as a visual indicator and protective barrier around the GWETS components or monitoring wells within 50 feet of the work area before activities involving heavy equipment are performed.
- Notify the GWETS operator prior to beginning drilling.
- Daily health and safety tailgate meetings will be held prior to the start of field work. During that time, the Health and Safety Plan (HASP) will be reviewed. Discussions of health and safety hazards and preventions will also be held at that time. The names and contact numbers for all Tetra Tech field staff and Tetra Tech subcontractors will be confirmed. Clear lines of communication will be established to ensure a swift and coordinated response to a potential release.
- A task-specific Activity Hazard Analysis (AHA) will be prepared and reviewed prior to field implementation. Hazards related to each step of a task will be identified, including working in proximity to existing GWETS components or monitoring wells. Procedures needed to mitigate those hazards will be identified and implemented.
- Equipment transport routes will be established to avoid an encounter with GWETS components and monitoring wells. Drivers and operators will be well-informed of the hazards prior to operating equipment at the facility.
- The roll-off disposal bin for handling the soil cuttings will be staged at a minimum of a 100-feet away from any existing GWETS components or monitoring wells.
- Work areas will be delineated as necessary to avoid unauthorized entry into the work area.
- A designated spotter will be used during movement of heavy machinery. A policy of no vehicle backing without performing a 360-degree inspection and spotter guidance will be enforced.

Response Procedures

Personnel will be informed of the following response procedures in the event of a release:

- The immediate action taken in response of a release of untreated groundwater during the drilling activities will be to notify the GWETS operator to shut down the affected pipeline(s) necessary to control the release and contain any uncontrolled flow.
- If Tetra Tech's activities result in the shutdown of the GWETS components due to damage to the system(s) or to the control the release of untreated groundwater, Tetra Tech will immediately notify the Trust, who will in turn notify NDEP if the leaks exceed the notification thresholds. The notification thresholds are as follows:
 - On-site influent leak/release: greater than 10 gallons
 - On-site effluent leak/release: greater than 100 gallons
- If Tetra Tech's subsurface investigation results in the release of untreated groundwater, the release will be reported to the NDEP 24-Hour Spill Notification Line, if required by NAC 445A.345 to 445A.348.

Please contact us at (303) 664-4630 if you have any questions. Tetra Tech appreciates the opportunity to provide this Contingency Plan.

Sincerely,

Tetra Tech



David Bohmann
Principal Engineer



Kyle Hansen
Field Operations Manager

cc: BMI Compliance Coordinator, NDEP, BCA, Las Vegas

ec: James Dotchin, NDEP
James Carlton Parker, NDEP
Nevada Environmental Response Trust
Tanya O'Neill, Foley & Lardner LLP
John Pekala, Ramboll

CERTIFICATION

Contingency Plan for GW-11 Initial Pre-Closure Activities

Nevada Environmental Response Trust Site (Former Tronox LLC Site) Henderson, Nevada

Nevada Environmental Response Trust (NERT) Representative Certification

I certify that this document and all attachments submitted to the Division were prepared at the request of, or under the direction or supervision of NERT. Based on my own involvement and/or my inquiry of the person or persons who manage the systems(s) or those directly responsible for gathering the information or preparing the document, or the immediate supervisor of such person(s), the information submitted and provided herein is, to the best of my knowledge and belief, true, accurate, and complete in all material respects.

Office of the Nevada Environmental Response Trust

Le Petomane XXVII, not individually, but solely in its representative capacity as the Nevada Environmental Response Trust Trustee

Signature: Jay A Steinberg, not individually, but solely in his representative capacity as President of the Nevada Environmental Response Trust Trustee

Name: Jay A Steinberg, not individually, but solely in his representative capacity as President of the Nevada Environmental Response Trust Trustee

Title: Solely as President and not individually

Company: Le Petomane XXVII, Inc., not individually, but solely in its representative capacity as the Nevada Environmental Response Trust Trustee

Date: _____

8/25/2020

CERTIFICATION

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been prepared in a manner consistent with the current standards of the profession, and to the best of my knowledge, comply with all applicable federal, state, and local statutes, regulations, and ordinances. I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein.

Description of Services Provided: Contingency Plan for GW-11 Initial Pre-Closure Activities.



Kyle Hansen, CEM
Field Operations Manager/Geologist
Tetra Tech, Inc.

August 24, 2020

Date

Nevada CEM Certificate Number: 2167
Nevada CEM Expiration Date: September 18, 2022



Legend
 — NERT Property Boundary

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 www.tetrattech.com 150 S. 4th Street, Unit A Henderson, Nevada 89015 Phone: (702) 854-2293	NEVADA ENVIRONMENTAL RESPONSE TRUST SITE		Project No.: 117-7502020
	SITE LOCATION		Date: AUGUST 25, 2020
			Designed By: ES
			Figure No. 1



Legend

- Embankment investigation boring location
- Geotechnical investigation boring location

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 <p>TETRA TECH</p> <p>www.tetratech.com</p> <p>150 S. 4th Street, Unit A Henderson, Nevada 89015 Phone: (702) 854-2293</p>	NEVADA ENVIRONMENTAL RESPONSE TRUST SITE	Project No.: 117-7502020
	PROPOSED GW-11 EMBANKMENT BORING LOCATIONS	Date: AUGUST 24, 2020
		Designed By: ES
		Figure No. 2