

September 14, 2016

Mr. Weiquan Dong, PE, Ph.D. Bureau of Corrective Actions, Special Projects Branch Nevada Division of Environmental Protection 2030 E. Flamingo Rd., Suite 230 Las Vegas, Nevada 89119

# Subject: Addendum to the Contingency Plan for AP-5 Phase II Project Implementation dated April 22, 2016.

Dear Mr. Dong:

At the direction of the Nevada Environmental Response Trust (NERT or Trust), Tetra Tech, Inc. (Tetra Tech) has prepared this addendum to the April 22, 2016 Contingency Plan for the AP-5 Phase II Project Implementation. The purpose of this addendum is to summarize additional activities that will be performed to complete the scope of work outlined in the Contingency Plan. These additional work activities were not included in the April 22, 2016 Contingency Plan as the specific procedures were not finalized until the design was completed.

The Contingency Plan and this addendum have been prepared in accordance with the Site Management Plan (SMP) Revision 2, dated July 17, 2015, for the NERT site in Henderson, Nevada. Per Section 5.7 of the SMP, this addendum to the Contingency Plan serves as notification to NDEP and the Trust that work during the AP-5 Phase II Project Implementation will be conducted within 50 feet of the GWETS component where use of equipment could have the potential to accidentally damage a well or other components of the GWETS. This contingency work plan outlines Tetra Tech's protocols and equipment that would be utilized in the event that damage occurred to any component of the existing remediation system, resulting in a release of untreated groundwater during the AP-5 Phase II Project Implementation.

The AP-5 Phase II Project Implementation activities will involve the slurry and transfer of sediment containing ammonium perchlorate (AP) from the lined AP-5 Pond to the Process Tanks where it will be washed to remove AP. The current phase of work described in this addendum to the Contingency Plan is scheduled to begin in late September 2016. The following summarizes the scope of work, protection measures that will be implemented to prevent damage to the GWETS components, and the response procedures and equipment that will be utilized in the event of a release resulting from accidental damage to the GWETS system.

### Summarized Additional Scope of Work

The following activities summarize the planned additional work that will be within 50 feet of a GWETS component or monitoring well:

- Preparing work areas around the AP-5 Pond
- Removing and washing of abandoned equipment in and around the AP-5 Pond
- Installing slurry transfer lines from AP-5 Pond to the Process Tanks

- Installing water lines from the existing Stabilized Lake Mead Water line to the AP-5 Pond
- Removing an existing, unused lime silo adjacent to the Fluidized Bed Reactor (FBR) system
- Installing a Receiving Tank in place of the lime silo

Many of these activities will be conducted within 50 feet of extraction wells (I-AR and newly installed IRM extraction wells), monitoring wells (M-3, M-14A, M-25, M-37, M-38, M-14A, M-126, M-159, M-160), and GWETS components (FBRs and three pipelines). The pipelines, which are located to the north and to the east of the AP-5 Pond, are not currently in use and are disconnected from any other infrastructure on the ends closest to the AP-5 Pond. One of the pipelines runs from the AP-5 Pond to the GW-11 Pond and was used during previous efforts to remediate the AP-5 Pond. The other pipelines run from the BT Tanks to the GWETS equalization area.

The newly installed IRM extraction wells have been installed in traffic rated flush mount covers. The monitoring wells and extraction well I-AR have stick-up well head assemblies and the surface completions do not include protective structures such as bollards. The following section outlines protection measures that will be implemented to during construction and operation of the system that will remove the contents of the AP-5 Pond.

## **Protection Measures**

Personnel and subcontractors will protect the extraction wells, monitoring wells, and GWETS components by using the following precautions and procedures during construction activities.

- 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 Job Safety Analysis (JSA) will be prepared and reviewed prior to beginning each new task. Hazards related to each step of a task will be identified. Procedures needed to mitigate those hazards will be identified and implemented.
- Orange safety fence and caution tape will be placed around the wells before activities involving heavy equipment are being performed in the proximity of the wells.
- Orange safety cones will be placed along the segments of the pipelines that are within the work area.
- Equipment transport routes will be established to avoid an encounter with exposed wells or other exposed GWETS components. Personnel will be well-informed of the hazards prior to operating equipment at the facility.
- Work areas will be delineated as necessary to avoid unauthorized entry into the construction area.
- Staging areas and parking areas will be identified with cones, caution tape, etc. Traffic flow maps will be prepared for these areas.
- A designated spotter will be used for all vehicle movement. A policy of no vehicle backing without performing a 360-degree inspection and spotter guidance will be enforced.
- A crane will be used to remove the lime silo and place the Receiving Tank. Three designated spotters will be assigned to assist with monitoring and controlling these activities. These activities will also be coordinated with Envirogen Technologies, Inc. the GWETS operator.

### **Response Procedures and Equipment**

The work activities outlined in this addendum will be distributed to construction personnel in order to inform them of the location of the nearest GWETS components and the response procedures to follow in the event of a release.

- The immediate action taken in response of a release of untreated groundwater during the subsurface investigation will be to shut down and contain any uncontrolled flow.
- A spill response kit will be readily available during activities and utilized in the event of a release of untreated groundwater. The spill response kit will be utilized in the event of a release of untreated groundwater or any fluids associated with the activities listed above. The spill response kit will include an absorbent compound (such as cat litter), a plastic tarp, a 5-gallon bucket and appropriate hand tools to help control the flow.
- As defined in the SMP, if construction activities results in the release of untreated groundwater, Tetra
  Tech will immediately notify NERT who will in turn notify NDEP at (702) 486-2850, extension 252 and
  GWETS operation personnel. If any GWETS components are shut down due to damage to the system(s)
  or to control the release of untreated groundwater, Tetra Tech will provide NDEP and the Trust with a
  written explanation for the shutdown.

Please contact Kyle Hansen at (801) 949-6663 if you have any questions regarding field operations at the NERT site.

## Sincerely,

Tetra Tech

Dan Pastor Project Manager

Attachments:	Figure 5b	Site Management	Plan	Revision	2
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cc: BMI Compliance Coordinator, NDEP, BCA, Las Vegas

ec: James Dotchin, NDEP Carlton Parker, NDEP Nevada Environmental Response Trust Tanya O'Neill, Foley & Lardner LLP John Pekala, Ramboll Environ Mike Del Vecchio, Enviogen Technologies, Inc.

