HERMOSA
TSF EMERGENCY PLANNING

Emergency Preparedness and Response Planning (GISTM Requirement 15.1 B8)

Hermosa has provided local authorities and emergency services with relevant information as part of our emergency preparedness and response planning.

The Hermosa Project Dam Safety Emergency Plan (DSEP) defines responsibilities and provides procedures to identify conditions that may endanger the existing dry stack tailings storage facility (TSF) and/or underdrain collection pond (UDCP). The DSEP outlines actions for an appropriate response and to notify internal and external emergency management entities of possible, impending, or actual failure event. The DSEP considers credible failure modes determined in the Failure Modes and Effects Analysis (FMEA) and the scenarios evaluated in the Dam Breach Analysis (DBA). Trigger Action Response Plans (TARPs) exist for the existing TSF and UDCP. All TARPs are detailed in the Operation, Maintenance and Surveillance (OMS) Manual.

Emergency management follows the four-step process described below.

1. Incident detection, evaluation, and emergency level determination

An unusual event or emergency event may be detected by:

- Observations at or near the TSF by Hermosa team members or contract personnel;
- Evaluation and monitoring instrumentation data associated with the structure;
- Earthquakes felt or reported in the vicinity of the site; or
- Forewarning of conditions that may cause an unusual or emergency event like severe weather or flash flood forecast.

After an unusual or emergency event is detected or reported, the Dam Operator, or alternate, will be responsible for classifying the event, with advice from subject matter experts, into one of the following three emergency levels:

Level 1 – Non-Failure Alert Status
The non-failure emergency level is appropriate for an event that will not, by itself, lead to a dam failure, but requires investigation and notification of internal and/or external personnel.

Level 2 – Potential Failure Alert Status
The potential failure emergency level indicates a condition at the TSF and/or UDCP that could lead to dam failure. Potential failure situations allow time for analysis and action before a potential failure. Response actions may dampen or alleviate failure.

Level 3 – Imminent Failure Alert Status
The imminent failure emergency level indicates that the dam has failed, is currently failing, or is about to fail. Imminent failure typically involves continuing and progressive loss of material from the dam and an impending or occurring loss of contact solutions stored in the impoundment.

2. Notification and Communication

After an emergency level has been determined, personnel are to be notified based on the level of the emergency, which includes but is not necessarily limited to the Health, Safety and Security (HSS) Manager (or On-Call Duty Manager), Superintendent Water Treatment Plant (WTP), Vice President Project Delivery and Accountable Executive.

External stakeholder notification of an emergency declaration is dependent on the level and nature of the emergency. External stakeholders that may be notified of a Level 2 or Level 3 emergency declaration are: Arizona Department of Water Resources (ADWR) Dam Safety division, Arizona Department of Environmental Quality (ADEQ), Santa Cruz County Emergency Management, Santa Cruz County Sheriff, Mine Safety and Health Administration (MSHA), and/or United States Forest Service (USFS).

During an emergency, an Incident Management Team (IMT) may be formed in accordance with

Hermosa's crisis and emergency management plan.

3. Emergency Actions

Emergency actions will be based on the alert level. Example lists are included in the DSEP as a quick reference.

Level 1 – Non-Failure Alert Status

- Dam Operator contacts the HSS Manager (or On-Call Duty Manager), Responsible Tailings Facility Engineer (RTFE), and any other relevant personnel or contractors; and
- Dam Operator makes initial assessment of the emergent condition at the TSF or UDCP using performance instrumentation data and visual observation.
- The condition of the TSF or UDCP will be monitored, with changes reported to relevant stakeholders until the TSF conditions are considered stable.

Level 2 – Potential Failure Alert Status

- Dam Operator contacts the HSS Manager (or On-Call Duty Manager), Superintendent WTP, RTFE, and any other relevant personnel or contractors;
- Dam Operator makes initial assessment of the emergent condition at the TSF or UDCP using performance instrumentation data and visual assessment.
- The condition of the TSF or UDCP will then be monitored, with regular updates reported to relevant stakeholders until the TSF conditions are considered stable.
- If conditions warrant, an IMT may be formed to follow the Crisis and Emergency Management Plan;
- The area will be evacuated or secured to restrict access, as necessary;
- Subject matter experts (SMEs) will be contacted to assist in recommending corrective actions, as necessary;
- Ongoing monitoring and complete visual inspections and surveys will occur.

Level 3 – Imminent Failure Alert Status

- Dam Operator contacts the HSS Manager (or On-Call Duty Manager), Superintendent WTP, RTFE, and any other relevant personnel or contractors;
- Vice President Project Delivery and Accountable Executive will be notified;
- If conditions warrant, an IMT may be formed to follow the Crisis and Emergency Management Plan;
- The area will be evacuated or secured to restrict access; and
- The condition of the TSF or UDCP will be closely monitored with regular updates reported to relevant stakeholders until the risk of imminent failure passes.

Ongoing monitoring and a complete visual inspection and survey will occur where it is safe to do so. Emergency remedial action plan will be developed and enacted which includes actions ranging from temporary pumping to shutdown of operations.

4. Termination and Follow-up

Once the emergency event is over, the emergency must be closed out and follow-up procedures completed. Findings should be used to revise the DSEP, as necessary.

Assessment of social, environmental, and local economic impacts will be conducted as soon as possible after people are safe and short-term needs have been met.

Hermosa will also facilitate the monitoring and reporting of post-failure outcomes and work with regulators and affected people towards the development of reconstruction, restoration and recovery plans that address medium- and long-term social, environmental, and local economic impacts of the failure.