LLE604E

Lessons Learnt Template

LESSON LEARNT NUMBER:

DATE: 8/10/2018

APPLICABLE GMRs:

- 4.3 Vehicle and Plant Incidents (Worksites);
- 4.8 Excavation & Stockpile Collapse.

Location where the semi-trailer overturned.

PHOTO TITLE: Semi-Trailer transporting culverts overturns.

DETAILS:

During the delivery and transportation of culverts to site a Semi-Trailer (heavy vehicle) has travelled via an access route around a box culvert (under construction).

The vehicle trailer has inadvertently travelled over a suitable construction berm (windrow) and subsequently overturned. Works were underway near this location as part of the ongoing culvert construction.

The culvert units remained on the trailer held by the load restraints that have been designed as part of the chain of responsibility controls implemented during the procurement of the transport logistics

IMMEDIATE CAUSE:

DEF2 Alarm/Warning System - Absent or inadequate:

There was no warning signage to prevent semi-trailer access through culvert crossing and/or to advise escort and driver of an unsuitable route.

Action 6. Violation Procedures or instructions not followed:

The SWMS for regular inspections of the excavation was not completed to determine potential undercutting or compliance with excavation Code of Practice (CoP).

Action 2. Error – caused by failure to understand the task/environment:

Driver was not aware of the specific travel route, because he wasn't issued delivery instructions.

KEY LEARNINGS:

- Clear signage preventing access was not installed
- Planning the design of the workplace resulted in the benching works that accomadates the culvert apron installation contributed to the windrow being located close to edge of excavation;
- The communication of information is key factor that all stakeholders in the transportation, receipt and escort understand the planned route for heavy oversized vehicles when travelling within the construction boundaries;
- The design of haul route crossings takes into consideration the restrictions for different vehicle items and effective mitigating controls are physically implemented to prevent non-suitable vehicles accessing the area;
- Excavations that support haul route crossings are constructed in accordance with the code of practice and regularly inspected for disparities;
- The consignor requires a systematic process to ensure the transport chain receives delivery instructions prior to the dispatch of vehicles.
- The escort driver was inexperienced to be assigned the task that supports the navigation of an appropriate route for the semi-trailer.

GMR CONTROL LEARNINGS:

4.3.3 Parking and Traffic Routes:

- Provide clearly defined pedestrian routes in safe zones using hard barriers, flagging and other visual delineation to facilitate safe access and egress;

4.8.2 Excavation Management:

- Excavations greater than 1.5 metres (4.9 feet) must be benched, shored, batter back or sloped to a safe angle determined by the qualified engineer in the excavation design process. An angle of repose of 45 degrees must not be exceeded unless designed and certified by a geotechnical engineer.
- adjacent structures, roads and sidewalks must be supported or protected where necessary to prevent collapse.
- Adequate signage, physical barriers and lighting must be provided to prevent falls into excavations, especially for plant working on those excavations and vehicles or plant from adjacent thoroughfares. Temporary stairs must be installed to provide safe access into excavations where appropriate.