



Significant Near Miss – 3T Excavator nearly overturned



<p>Events leading up to Incident</p> <p><i>What was the work to be carried out by the IP, what planning had been carried out, had there been any changes or unusual events?</i></p>	<p>A temporary sewer connection was being installed for the site offices. The route for the pipe is from the compound to an existing sewer in front of the AW offices. The route ran through a grassed area adjacent to existing buildings. During investigation for the route, local AW staff advised that there had been a heating oil spill (approximately 10 years ago) close to the proposed line. To reduce the risk of encountering contaminated soil and the impact on the amenity of the lawned area, it was decided to construct the sewer close to the boundary fence.</p> <p>Prior to construction and before the Permit to Dig could be issued, the area was scanned for services. A number of services were located. These had not been identified on the service plan and were not shown on the Randall's survey / service drawing. The services were exposed by hand excavation prior to starting work with a machine.</p> <p>A risk assessment/method statement (RAMS) had been completed identifying the size and type of excavator. The method of work identified constructing the trench in a continuous line, away from the open face, side casting excavated material for later backfilling.</p> <p>Prior to the incident, the original RAMS did not identify how to deal with the trial hole. The trial hole had been left open to ensure the operatives knew where the services were. The RAMS was not reviewed to consider the new hazard of an open hole or how the trench and trial hole would be connected. To connect the trenches, a site decision was made to reverse the excavator and dig 'backwards' from the trial hole. As it approached the original trench the excavator straddled the trench behind.</p>
<p>Description of Incident</p> <p><i>What happened - only state known facts. Include sketches, photos after incident, distances, heights.</i></p> <p><i>If any vehicles or equipment involved clearly identify the make, name and size.</i></p>	<p>A 3T Hitachi excavator was being used to excavate a trench, approximately 800mm deep and 300mm wide. The work was being carried out in a grassed area and the trench was approximately 1m away from a boundary fence.</p>  <p>The trench was being dug towards a previously excavated section which was still open. This meant that for the last section, the excavator had to straddle the trench.</p>  <p>Excavator indicated by yellow, excavator was working back from blue circle.</p>

What went wrong:

- The excavator was straddling the service trench that had previously been dug. The excavator had to slew its tracks slightly to avoid coming into contact with one of the fence posts and in doing so got too close to the trench edge causing the inside tracks (and trench edge) to slip into the excavation. As the trench was only 300mm wide the machine did not overturn but leaned over until the underside of the excavator came to rest on the ground.

Primary Causes:

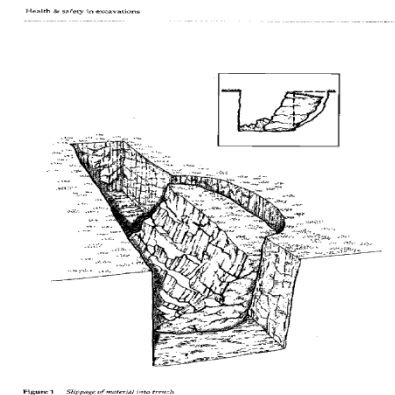
- There was a change in the methodology of the works but the RAMS was not reviewed prior to continuing with the work. The excavator operator did not inform management.
- The excavator should not have straddled the excavation. Track loading should be away from trench.
- Trench should have been positioned further away from fence to allow adequate working room.
- The Banksman should have informed the excavator operator he was too close to the edge of the excavation.
- Banksman in attendance did not have formal training.
- Experienced ground worker in attendance did not have formal "Excavator Banksman" training.

Corrective actions :

- All Special Projects PM's to issue instruction to their site teams that excavators are not to straddle trenches unless temporary works design is in place for the activity.
- Special Projects PM's to review safety planning on current sites with particular emphasis on detail of method statements in relation to site/programme constraints and changes.
- All Special Projects Partners to review their behavioural awareness campaign progress.
- All Special Projects site teams to complete a TBT on what went wrong, and what could have gone wrong (Injury to operator and plant)
- All Special Projects sites to update site induction and site rules, with the NO straddling rule.
- Competence of operatives to be detailed in RAMS.

HSE Guidance :

- Health and safety in - Excavations
- "be safe, be shore"
- HSG 185



NOTHING WE DO IN SPECIAL PROJECTS IS SO IMPORTANT THAT WE CANNOT TAKE TIME TO DO IT SAFELY