



Safety alert

21/10/2024

Injury caused by dropped object

1. What happened?

Workers were working down in the headgate of the dam, about 10M below the surface of the dam deck in an open cavity. Tools are lowered by rope down to the work crew as required by personnel on the dam deck. The work crew on the headgate moved back to the far side of the gate from the tool bag as it was being lowered. As the tool bag was lowered over the edge, a spanner, about 400mm long and weighing approx 4kg became dislodged from the bag and fell approx 10 metres down to the gate. As it fell it hit the wall and bounced a couple of times and then landed on the top of the gate where it bounced up and hit a staff member on the knee and then on the head. He was wearing his hard hat which protected his head. His knee was bruised but he was able to climb up the ladder to get out unaided. He was taken to the medical centre as a precaution and went home. He returned to work the next day.



2. How did it happen?

Just as the toolbag was being lowered, a team member made a decision to reach for a tool out of the bag for a job he was doing on the dam deck. It caught on the spanner, which caused the spanner to drop. The toolbag was not fastened at the top.

The safety paperwork for this job did not cover dropped object exclusion zones (the workers on the headgate just made a good call to stand back, away from the toolbag), and procedure did not cover toolbag fastening.



3. What did we learn?

Not standing under, or near a suspended load in this instance could have saved a life. The drops calculator indicates this force (4kg x 10metres) was strong enough to penetrate a hard hat, and we now understand the force considering the bounce impact it had (causing injury).

Procedure and hazard ID for work such as this should have indicated dropped object hazards and mitigations, such as toolbag fastening, exclusion zones, tool lanyards for workers, and good work practice (not touching a suspended load).

The spanner was able to be retrieved, however could have had negative consequences to plant had it have dropped down into the penstock.

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