

How should we operate heavy equipment around excavations?

[Ask the following questions and give time for answers.]

What are the hazards? Trench collapse, body parts caught in or between equipment and surface, overhead materials dropping on workers in trenches, equipment rollover

What are the results? Broken or crushed limbs and bones, entrapment, head injury, internal damage, and death

What should we look for? Equipment operating near trenches, equipment working in tight areas, equipment backing up without spotters, fractures in soil caused by equipment near trenches, barricades and spoil piles not appropriately established.

[Relate this incident or better one you know.]

Actual Incident: In May 2003, a Hispanic male pipe layer aged 23 years died after being struck by the teeth of an excavator bucket while in a trench. The pipe layer was in the trench connecting pipe sections and working around the moving excavator bucket. A "spotter" designated to ensure that workers remained out of the way of the moving excavator had been assigned to another task. The operator was reversing the excavator to make a new soil cut when the pipe layer was struck by the bucket causing fatal injuries.



[Ask the following question and ensure every item is covered.]

How do we prevent these results?

- Spotters should be used for backing up equipment and guiding operations that pose extra risk. If spotters can't be seen, the operation should stop.
- A competent person must evaluate excavations daily and after evaluated after rains.
- Warning systems such as back-up alarms, warning vests and barricades must be checked and used.
- Seat belts must be worn whenever the equipment is moving.
- Spoil piles must be maintained at least two feet from the edge of the excavation.
- Rollovers should be ridden out as long as there is ROPS in place. Jumping increases risk.

[Ask the following questions about this site and ensure every item is covered.]

Let's talk about this site now.

- Have the spoil piles been maintained well? *At least 2 feet back.*
- Have workers in the trench stayed far enough back from the equipment?
- Have we had any close calls during the backing of equipment?
- What do we have in place to warn operators when they are getting close to the trench edge? *Barricades, logs, etc.*

[Record questions below that you want to ask about this site.]