

A low consequence event with the potential for a catastrophic outcome

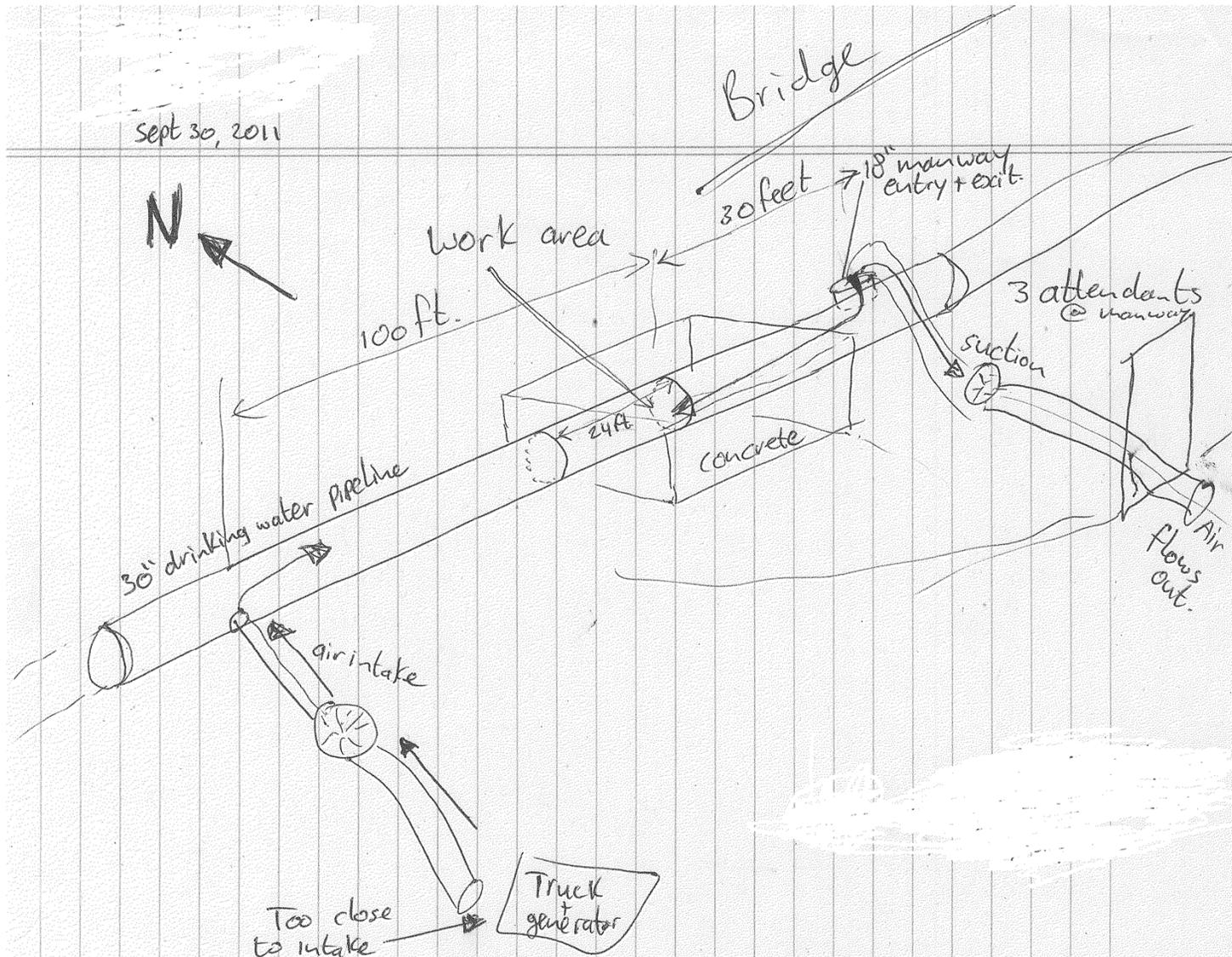
IPLOCA Workshop

Preventing Catastrophic Losses

Geneva, 11 July 2013

Event

- Two employees were working on the inside of a 30-inch waterline.
- Employees were not wearing any respiratory protection device as the confined space was being purged/ventilated, of which the client was responsible for.
- A truck and generator were later placed at the air intake while equipment are in operation.
- This error caused the introduction of carbon monoxide and other by-products of fuel combustion into the confined/work space, thereby setting-off employees' monitors (CO reading was up to 100 ppm).
- Employees immediately self-evacuated the space. There were safety watches from the client who helped them.



Consequences

- Short term exposure of employees to high level of carbon monoxide (CO).
- Very high potential for fatal outcome if employees had not evacuated before CO concentration increased further
- Consequence was mitigated by employees wearing gas monitors.

Customer reacted very relaxed to this event, either not seeing or not willing to see the potential fatal consequences

Causes

- Immediate Cause(s)
 - Contamination of confined space with hazardous gases, due to improper placement of combustion engine devices near formal confined space ventilation systems.
- Underlying Cause(s)
 - Improper equipment set-up for confined space purging/ventilation.
 - Improper placement of hazardous gas generating equipment.
 - Individual responsible for confined space purging did demonstrate inadequate knowledge of confined space purging/ventilation requirements and/or protocol.

Corrective Actions / Recommendations

- All crews
 - are required to each have a calibrated personal gas monitors on when going into confined space to do any work;
 - entering into a confined space should conduct secondary survey and/or confirm the entry permit that the space is safe to enter;
 - are encouraged to ask the client's representatives any question in order to get a satisfactory answer prior to confined space entering, if unsatisfied you may refuse to enter.
 - are to ensure that a valid confined space permit form has been properly completed and posted near the entrance.
- Supervisors
 - are to ensure that all confined space participants have a record of confined space training before participating.
 - are required to ensure that the client have designated competent Attendant/Safety watch in place.

Obtain authorisation before entering a confined space

OGP



You should...

- Confirm with the Supervisor or the Person in Charge of the work that it is safe to start work
- Confirm with the Attendant that you can enter a confined space
- Follow the requirements of the Work Permit

Attendants should...

- Approve and control access to a confined space
- Have means of communication with people in the confined space

Would following this Life Saving Rule have further helped to prevent a catastrophe?