

Ammoniakutsläpp från en jordbruksanläggning.

960419 MARS 1800_009_01

Olyckan inträffade vid underhållsarbete på en strypventil. Ventilen kontrollerade nivån i en sfärisk tank. Vid arbetet begicks ett misstag och ventilen öppnades. Flytande ammoniak rann ut och förångades. De två underhållsarbetarna omkom efter svåra skador. Ammoniakflödet dirigerades om och den aktuella tanken isolerades från övriga tankar på anläggningen. Tanken tömdes så fort som möjligt.

Inblandade ämnen och mängder

	CAS Nr.	Mängd
ammoniak	7664-41-7	okänt

Skador:

Människor:	De två underhållsarbetarna omkom efter svåra skador.
Materiella:	Inga skador.
Miljö/ekologi:	Inga effekter rapporterade.
Infrastruktur:	Inga effekter.

Erfarenheter redovisade (Ja/Nej): Ja

Mycket kortfattat anges förebyggande åtgärder

Report Profile

Identification of Report:

country: FA ident key: 1800_009_01

reported under Seveso I directive as major accident reports: SHORT

Date of Major Occurrence: Time of Major Occurrence

start: 19/04/1996 start: 10:33:00

finish: 19/04/1996 finish:

Establishment:

name:

address:

industry: 2015 agriculture

Seveso II status: not applicable: Yes art. 6 (notification): No

art. 7 (MAPP): No

art. 9 (safety report): No

Date of Report:

short: full:

Authority Reporting:

name:

address:

Authority Contact:

rep_cont_name:

rep_cont_phone:

rep_cont_fax:

Additional Comments:

- a) - not applicable -
- b) - not applicable -
- c) - not applicable -
- d) - not applicable -
- e) - not applicable -

Short Report

country: FA ident key: 1800_009_01

Accident Types:

release: Yes explosion: No

water contamination: No other: No

fire: No

description:

Release of ammonia

Substance(s) Directly Involved:

toxic: Yes explosive: No

ecotoxic: No other: No

flammable: No

description:

On 19.04.1996 at 10:33 a release of ammonia occurred from a spherical storage tank

Immediate Sources of Accident:

storage: No transfer: No

process: No other: Yes

description:

Two workers of a subcontractor (external company) were performing the repair (maintenance) of an engine throttle valve for the level control of a spherical tank. During the repair the spindle was pushed out of the fitting. Liquid ammonia wa... see Appendix Short Report / description of immediate sources

Suspected Causes:

plant or equipment: No environmental: No

human: Yes other: No

description:

human error during repair / maintenance act by external company subcontractor workers

Immediate Effects:

material loss: No

human deaths: Yes

human injuries: No community disruption: No

other: No

ecological harm: No

national heritage loss: No

description:

Both workers of the subcontractor (external company) died as a consequence of their severe injuries (two fatalities).

Emergency Measures taken:

on-site systems: Yes **decontamination:** No

external services: No **restoration:** No

sheltering: No **other:** No

evacuation: No

description:

The following measures were taken in order to block the release of ammonia: Immediate switch of the Ammonia equipment to (deep cold) cryogenic (operation) system and storage of the entire production in depressurised tanks; separation (isolation) see Appendix Short Report / description of emergency measures taken

Immediate Lessons Learned:

prevention: Yes **other:** No

mitigation: No

description:

Substitution of the engine throttle valve (spindle valve, shaft valve), installation of a ball plug valve; revision (review) of the safety analysis (safety report), revision of the on-site and off-site emergency plan and the corporate (company) instructions (guidance, manual) for repair and maintenance work and particularly when employing subcontractors (external companies)

Appendices for the FA / 1800_009_01 report

Appendix Short Report / description of immediate sources:

Two workers of a subcontractor (external company) were performing the repair (maintenance) of an engine throttle valve for the level control of a spherical tank. During the repair the spindle was pushed out of the fitting. Liquid ammonia was released with 14 bars through the section of the opening.

Appendix Short Report / description of emergency measures taken:

The following measures were taken in order to block the release of ammonia: Immediate switch of the Ammonia equipment to (deep cold) cryogenic (operation) system and storage of the entire production in depressurised tanks; separation (isolation) of the other spherical tanks from the system and emptying of the damaged tank as fast as possible in direction of the plant; closure of the fitting of the main pipe (collector, collecting pipe) towards the pressure tanks, the exit hole (exit port) which was formed at the fitting was closed with a flap.

Appendix Short Report / description of immediate lessons learned:

Substitution of the engine throttle valve (spindle valve, shaft valve), installation of a ball plug valve; revision (review) of the safety analysis (safety report), revision of the on-site and off-site emergency plan and the corporate (company) instructions (guidance, manual) for repair and maintenance work and particularly when employing subcontractors (external companies).