

Explosion och brand på en anläggning för återvinning av potentiellt explosivt avfall.

930911

MARS 1993_04

oklar

Två explosioner inträffade tätt inpå varandra på en anläggning för återvinning av avfall som kunde vara explosivt. Den första explosionen inträffade i en matarskruv, antingen på grund av ett materialfel i skruven, eller på grund av förekomsten av främmande föremål i matarskruben. Man antar att den andra explosionen inträffade då stötvågen för den första explosionen rev sönder annan utrustning. Anläggningen utrymdes och räddningstjänsten tillkallades.

Inblandade ämnen och mängder

	CAS Nr.	Mängd
potentiellt explosiva substanser		

Skador:

Människor: 2 personer omkom i explosionen. 5 personer skadades och fördes till sjukhus.

Materiella: Anläggningen totalförstördes.

Miljö/ekologi: Inga effekter rapporterade.

Infrastruktur: Inga.

Erfarenheter redovisade (Ja/Nej): Nej

Report Profile

Identification of Report:

country: FA ident key: 1993_004_01

reported under Seveso I directive as major accident reports: SHORT

Date of Major Occurrence: Time of Major Occurrence

start: 1993-09-11 start: 06:00:00

finish: finish:

Establishment:

name:

address:

industry: - not applicable -

Plant for production, treatment, processing, recycling or destruction of potentially explosive subst

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:** 1993_004_01**Accident Types:****release:** No **explosion:** Yes**water contamination:** No **other:** No**fire:** Yes**description:**

In a cartridge building for the production of gelatinous rock-blasting explosive two explosions occurred with consequent fire. In the cartridge building were max: 500 ... see Appendix Short Report / description of accident types

Substance(s) Directly Involved:**toxic:** No **explosive:** Yes**ecotoxic:** No **other:** No**flammable:** Yes**description:**

Potentially explosive substances

Immediate Sources of Accident:**storage:** No **transfer:** No**process:** No **other:** No**description:**

Production of gelatinous rock-blasting explosive

Suspected Causes:**plant or equipment:** No **environmental:** No**human:** No **other:** Yes**description:**

The cause of the primary explosion is the failure of the worm gear feeder (material fatigue, material rupture) or a foreign body in the worm gear feeder. It is supposed that the second explosion in the packing room was triggered in that way... see Appendix Short Report / description of suspected causes

Immediate Effects:

material loss: Yes

human deaths: Yes

human injuries: Yes **community disruption:** No

other: No

ecological harm: No

national heritage loss: No

description:

- 2 persons killed by explosion... see Appendix Short Report / description of immediate effects

Emergency Measures taken:

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

external services: No **restoration:** No

sheltering: No **other:** No

evacuation: No

description:

According to the current alarm procedure the plant was evacuated and the fire brigade was advised.

Immediate Lessons Learned:

prevention: No **other:** No

mitigation: No

description:

- not applicable -

Appendices for the FA / 1993_004_01 report

Appendix Short Report / description of accident types:

In a cartridge building for the production of gelatinous rock-blasting explosive two explosions occurred with consequent fire. In the cartridge building were max: 500

kg of potentially explosive substances, which did not detonate completely (primary explosion). As consequence exploded and took fire a cartridge amount of about 30

- 40 kg, that were in the packing room (the same building). Due to the explosion two employees died and five received ambulatory cares. According to the current alarm procedure the plant was evacuated and the fire brigade advised.

Appendix Short Report / description of suspected causes:

The cause of the primary explosion is the failure of the worm gear feeder (material fatigue, material rupture) or a foreign body in the worm gear feeder. It is supposed that the second explosion in the packing room was triggered in that way that the pressure wave has teared out with force the steel plate in the input of the transport tunnel and this has teared out the l'imbuto engaged which was 50% filled (12-15kg) and leaded to detonation. At the same time 10-15 cartridges with bullets were ignited for impact or pressure. The projectiles were in a shoot.

Appendix Short Report / description of immediate effects:

- 2 persons killed by explosion

- 5 persons hospitalized by explosion

- material damage (total destruction of the plant) amounting to many millions of DM