

Gasexplosion och brand på en anläggning för produktion av smörjmedel på ett oljeraffinaderi.

901115 MARS 1990_14

Under morgonen (07:00) upptäcktes en liten propanläcka. Läckan ansågs inte vara kritisk och prioriterades inte. Nästa skift (14:00) skulle åtgärda läckan och hade just stoppat processen då propangasen läckte ut och antändes (15:37). Det automatiska sprinklersystemet aktiverades, och räddningstjänsten tillkallades. Branden var under kontroll klockan 17:00. Rapporten är mycket knapphändig.

Inblandade ämnen och mängder

	CAS Nr.	Mängd
propan	74-98-6	okänt

Skador:

Människor: Två personer omkom.
Materiella: Skador på anläggningen.
Miljö/ekologi: Inga effekter rapporterade.
Infrastruktur:

Erfarenheter redovisade (Ja/Nej): Ja

Mycket kortfattat anges förebyggande åtgärder.

Report Profile

Identification of Report:

country: FA ident key: 1990_014_01

reported under Seveso I directive as major accident reports: SHORT

Date of Major Occurrence: Time of Major Occurrence

start: 1990-11-15 start: 15:37:00

finish: finish:

Establishment:

name:

address:

industry: - not applicable -

Installation for fabrication of lubricants in the harbour refinery

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:** 1990_014_01

Accident Types:

release: No **explosion:** No

water contamination: No **other:** No

fire: Yes

description:

7.00 Detection of a little leakage of propane in the exchanger joined to the plug, the solution of the problem not being considered priority due to its naturality.... see Appendix Short Report / description of accident types

Substance(s) Directly Involved:

toxic: No **explosive:** Yes

ecotoxic: No **other:** No

flammable: Yes

description:

Propane (Annex III- flammable gas)

Immediate Sources of Accident:

storage: No **transfer:** No

process: No **other:** Yes

description:

Sudden start of the unit after stopping for planned maintenance. Propane escape through the seat of the obturation plug of the orifice destined to the hydraulic assays in the heat exchanger body.

Environmental conditions: strong N.E wind.

Suspected Causes:

plant or equipment: No **environmental:** Yes

human: No **other:** No

description:

Ignition of the propane gas cloud released by the projection of the plug of the heat exchanger.

Immediate Effects:

material loss: No

human deaths: Yes

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

other: No

ecological harm: No

national heritage loss: Yes

description:

- 2 persons killed by fire
- damage of the equipment system in the involved zone (exchangers, accumulators, compressors)

Emergency Measures taken:

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

external services: Yes **restoration:** No

sheltering: No **other:** No

evacuation: No

description:

Internal to the establishment... see Appendix Short Report / description of emergency measures taken

Immediate Lessons Learned:

prevention: No **other:** Yes

mitigation: Yes

description:

- Revision of maintenance and inspection procedures.
- personal instruction improving.

Appendices for the FA / 1990_014_01 report

Appendix Short Report / description of accident types:

7.00 Detection of a little leakage of propane in the exchanger joined to the plug, the solution of the problem not being considered prioritary due to its naturality.

14.00 Shift change

- initiating of the attempts to solve the problem,
- temporary introduction of a six-sided key in the plug, no leak detection due to the omission in following procedures.

15 37 Attempts to section the circuit

- flame extinction in the burners of the furnace
- ignition of propane clouds caused by the last pilot burners still burning.
- intervention of the fire extinguishing system.
- anti fire vehicles dislocation,

- covering of the total area with foam,

17 00 Accident under total control

- controlled burning of remaining propane
- fire completely extinguished

Appendix Short Report / description of emergency measures taken:

Internal to the establishment

- 1) Sectioning of storage tank for the vacuum residue.

2) Sectioning of fuel for burners and furnaces.

3) Cooling by means of pulverized water of the adjacent systems.

External to the establishment

Intervention vehicles of the zone firemen. Stop to the access traffic in the PETROGAL installation.