

Utsläpp av naturgas från ett underjordiskt naturgaslager.

890925 MARS 1800_31

Under arbete på en pump i gasinsprutningssystemet till ett underjordiskt naturgaslager förlorade man av ej redovisad anledning kontrollen och naturgas strömmade ut. Utströmningshastigheten uppskattades till 100 000-150 000 m³/h vid et tryck på 100-120 bar. Gasen fattade dock inte eld. Den interna katastrofplanen sattes i verket och de lokala myndigheterna underrättades. En specialist kallades in för att åtgärda utsläppet. Utsläppskällan täcktes över med slam.

Inblandade ämnen och mängder

	CAS Nr.	Mängd
naturgas		okänt

Skador:

Människor: Inga.
Materiella: Endast förlusten av naturgasen till ett värde av 0,44 MECU.
Miljö/ekologi: Inga effekter rapporterade.
Infrastruktur: Inga.

Erfarenheter redovisade (Ja/Nej): Nej

Report Profile

Identification of Report:

country: FA ident key: 1800_031_01

reported under Seveso I directive as major accident reports: SHORT+FULL

Date of Major Occurrence: Time of Major Occurrence

start: 1989-09-25 start: 11:00:00

finish: finish:

Establishment:

name:

address:

industry: 2008 wholesale and retail storage and distribution (incl. LPG bottling & bulk

distrib., more: F1!)

Storage Activities (Underground Natural Gas Storage)

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_031_01

Accident Types:

release: Yes **explosion:** No

water contamination: No **other:** No

fire: No

description:

ACCIDENT CASE HISTORY DESCRIPTION:... see Appendix Short Report / description of accident types

Substance(s) Directly Involved:

toxic: No **explosive:** Yes

ecotoxic: No **other:** No

flammable: Yes

description:

- Natural Gas [mainly Methane] (C.A.S. CODE: 74-82-8, E.E.C. CODE: 601-001-00-4): amount involved = not known.

Immediate Sources of Accident:

storage: Yes **transfer:** No

process: No **other:** No

description:

The accident occurred in an underground natural gas storage during the maintenance of the water pumping system filter in the gas-injection system.

Suspected Causes:

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

human: No **other:** Yes

description:

CAUSES:

When the Original Report was prepared the causes of the accident were still under investigation.

Immediate Effects:

material loss: Yes

human deaths: No

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

other: No

ecological harm: No

national heritage loss: No

description:

MATERIAL LOSS:

The accident caused the loss of natural gas to a value of about 3 millions of French Francs (about 0.44 MECU).

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: No

description:

When the Original Report was prepared no measures were established because the causes of the accident were not yet clarified by the internal and administrative inquiries that were carrying out.

A Occurrence Full Report

country: FA **ident key:** 1800_031_01

1 Type of Accident

remarks: During the replacement of a water pumping filter in the gas injection system of an underground natural gas storage area, the control over a bar used for mounting the bottom packing of it was lost. The pressure of the gas forced the bar to b... see Appendix Full Report A / type of accident

2 Dangerous Substances

remarks: No data are available about the amount of natural gas (mainly methane) released during the accident.

3 Source of Accident

illustration: - not applicable -

remarks: The accident occurred in an underground natural gas storage (codes 2008 and 3202) during the maintenance of the water pumping system filter (code 4007) in the gas-injection system. The operating pressure in the gas-injection system was betw... see Appendix Full Report A / source of accident - remarks

4 Meteorological Conditions

precipitation none: **fog:** **rain:** **hail:** **snow:**

No No No No No

wind speed (m/s):

direction (from):

stability (Pasquill):

ambient temperature (°C):

remarks: - not applicable -

5 Causes of Major Occurrence

main causes

technical / physical 5501 other: not identified

- not applicable -

- not applicable -

- not applicable -

- not applicable -

human / organizational - not applicable -

- not applicable -

- not applicable -

- not applicable -

- not applicable -

remarks: When the Original Report was prepared, the causes of the accident were still under investigation (code 5501).

6 Discussion about the Occurrence

- not applicable -

Type of Accident country: FA ident key: 1800_031_01

event:

major occurrence 1101 release: gas/vapour/mist/etc release to air

initiating event 1101 release: gas/vapour/mist/etc release to air

associated event - not applicable -

Dangerous substances

country: FA ident key: 1800_031_01

a) total establishment inventory

CAS number: 74-82-8 **identity:** Natural Gas

name from Seveso I Directive: - not applicable -

name from Seveso II Directive: - not applicable -

category from Seveso II: - not applicable -

other hazards (1): - not applicable -

other hazards (2): - not applicable -

maximum quantity (tonnes): -1

use of substance as: NORMAL FINISHED PRODUCT

b) substance belongs to relevant inventory directly involved: Yes

actual quantity: -1 potential quantity: -1

e) substance belongs to relevant inventory indirectly involved: No

actual quantity: -1 indir_pot_quant: -1

Source of Accident - Situation country: FA ident key: 1800_031_01

situation

industry

initiating event 2008 wholesale and retail storage and distribution (incl. LPG bottling & bulk distrib., more: F1!)

associated event - not applicable -

activity/unit

major occurrence 3202 storage: distribution-associated (not on-site of manufacture)

initiating event 3202 storage: distribution-associated (not on-site of manufacture)

associated event - not applicable -

component

major occurrence 4007 machinery/equipment (pump, filter, column separator, mixer, etc.)

initiating event 4007 machinery/equipment (pump, filter, column separator, mixer, etc.)

associated event - not applicable -

B Consequences Full Report

country: FA ident key: 1800_031_01

1 Area concerned

affected

extent of effects installation: Yes

establishment: Yes

off-site; local: No

off-site; regional: No

off-site; transboundary: No

illustration of effects - not applicable -

remarks Though the Police kept curious people away at a safe distance of 300m, in the Or... see Appendix

Full Report B / area concerned - remarks

2 People

establishment popul. emergency personnel off-site population

total at risk

immediate fatalities

subsequent fatalities

hospitalizing injuries

other serious injuries

health monitoring

remarks No people were injured during the accident.

3 Ecological Harm

pollution/contamination/damage of:

- residential area (covered by toxic cloud) Suspected
- common wild flora/fauna (death or elimination) Suspected
- rare or protected flora/fauna (death or elimination) Suspected
- water catchment areas and supplies for consumption or recreation Suspected
- land (with known potential for long term ecological harm or

preventing human access or activities)

- marine or fresh water habitat Suspected
- areas of high conservation value or given special protection Suspected

remarks In the Original Report there is no evidence of significant ecological harms. Thi... see Appendix

Full Report B / ecological harm

4 National Heritage Loss

effects on:

- historical sites not applicable - historic monuments not applicable
- historic buildings not applicable - art treasures not applicable

remarks No data available.

5 Material Loss

establishment losses off site losses

costs (direct costs to operator) (social costs)

in ECU FF ECU FF

material losses 3000000

response, clean up, restoration

remarks The accident caused the loss of natural gas to a value of about 3 millions of Fr... see Appendix

Full Report B / material loss

6 Disruption of Community Life

establishment/plant evacuated disabled/unoccupiable destroyed

- nearby residences/hotels No No No
- nearby factories/offices/small shops No No No
- schools, hospitals, institutions No No No
- other places of public assembly No No No

interruption of utilities etc. no / yes duration

- gas No
- electricity No
- water No
- sewage treatment works No
- telecommunications No
- main roads No

- railways No

- waterways No

- air transport No

significant public concern none local level national level

- off site populations No Yes No

- media interest No No No

- political interest No No No

remarks The Police kept curious people away at a safe distance of 300m.... see Appendix Full Report B / d

7 Discussion of Consequences

C Response Full Report

country: FA ident key: 1800_031_01

1 Emergency Measures

taken - on site - not applicable - - not applicable -

- not applicable - - not applicable -

- not applicable - - not applicable -

- off site - not applicable - - not applicable -

- not applicable - - not applicable -

- not applicable - - not applicable -

still - on site - not applicable - - not applicable -

required

- not applicable - - not applicable -

- not applicable - - not applicable -

- off site - not applicable - - not applicable -

- not applicable - - not applicable -

- not applicable - - not applicable -

continuing contamination or danger

-on site not applicable

-off site not applicable

remarks - not applicable -

2 Seveso II Duties

pre-accident evaluation

Article item not due yet not done done/submitted evaluated

6 notification No No No No

7 policy (MAPP) No No No No

9 safety report No No No No

9, 10, 11 update No No No No

11 internal plan No No No No

11 external plan No No No No

13 informing public No No No No

9, 12 siting policy No No No No

post-accident evaluation

Seveso II duty was actual were actual compared with actual

contingency consequences consequences, the

addressed? addressed? predicted extent was?

Article item

7 policy (MAPP) not applicable not applicable not applicable

9 current safety report not applicable not applicable not applicable

11 internal plan not applicable not applicable not applicable

11 external plan not applicable not applicable not applicable

13 informing public not applicable not applicable not applicable

9, 12 siting policy not applicable not applicable not applicable

evaluation of safety organisation

organisational element element existed did element relate to actual circumstances of

yes / no no / partly / yes adequate?

- written policy objectives No

- specified management No

structure

- specified responsibilities No

- specified working procedures No

- specified procedures for No

assessment/auditing of

management system

- specified procedures for No

review and update of

management policy

- specified general training No

procedures

- specified emergency No

training procedures

evaluation of ecological impact control

organisational element element existed did element relate to actual circumstances of

yes / no no / partly / yes adequate?

- ecological status review No

before incident

- potential ecological No

consequences assessment

- ecological impact review No

after incident

- **ecological restoration** No

procedures

- **subsequent review of** No

restoration success

remarks - not applicable -

3 Official Action Taken

legal action

- not applicable -

other official action

- not applicable -

4 Lessons Learned

measures to prevent recurrence

When the Original Report was p... see Appendix Full Report C / lesson learned - prevent

measures to mitigate consequences:

When the Original Report was p... see Appendix Full Report C / lesson learned - mitigate

useful references:

- not applicable -

5 Discussion about Response

- not applicable -

Appendices for the FA / 1800_031_01 report

Appendix Short Report / description of accident types:

ACCIDENT CASE HISTORY DESCRIPTION:

During the replacement of a water pumping filter in the gas injection system of an underground natural gas storage area, the control over a bar used for mounting the bottom packing of it was lost. The pressure of the gas forced the bar to be lifted by 25m and, consequently, natural gas escaped (without igniting) from the central zone of the bar, initially at a flowrate of 100,000`150,000m³/h at 100`120 bar; afterwards the internal and external emergency plans were activated and Gaz de France put in operation the safety resources (personnel and materials) available at Beynes (Yvelines). The release was halted with the assistance of a specialized contractor called in by the manufacturer, who covered the escape source with sludge and brought the bar to its original position by increasing the loading on it.

Appendix Short Report / description of emergency measures taken:

INTERNAL TO THE ESTABLISHMENT:

The Internal Emergency Plan was activated. Gaz de France put in operation the safety resources (personnel and materials) available at Beynes (Yvelines). The release was halted with the assistance of a specialized contractor called in by the manufacturer, who covered the escape source with sludge and brought the bar to its original position by increasing the loading on it.

EXTERNAL TO THE ESTABLISHMENT:

The External Emergency Plan was activated and the Authorities were alerted. The Fire Brigade was mobilized but its intervention was not necessary. The Police kept curious people away at a safe distance of 300m.

Appendix Full Report A / type of accident:

During the replacement of a water pumping filter in the gas injection system of an underground natural gas storage area, the control over a bar used for mounting the bottom packing of it was lost. The pressure of the gas forced the bar to be lifted by 25m and, consequently, natural gas escaped (without igniting) from the central zone of the bar (code 1101).

Appendix Full Report A / source of accident - remarks:

The accident occurred in an underground natural gas storage (codes 2008 and 3202) during the maintenance of the water pumping system filter (code 4007) in the gas-injection system. The operating pressure in the gas-injection system was between 100`200 bar.

Appendix Full Report B / area concerned - remarks:

Though the Police kept curious people away at a safe distance of 300m, in the Original Report there is no evidence of significant effects outside the installation.

Appendix Full Report B / ecological harm:

In the Original Report there is no evidence of significant ecological harms. This is due to the low ecotoxic risk of natural gas.

Appendix Full Report B / material loss:

The accident caused the loss of natural gas to a value of about 3 millions of French Francs (about 0.44 MECU).

Appendix Full Report B / disruption of community life:

The Police kept curious people away at a safe distance of 300m.

Appendix Full Report C / lesson learned - prevent:

When the Original Report was prepared no measures were established because the causes of the accident were not yet clarified by the internal and administrative inquiries that were carrying out.

Appendix Full Report C / lesson learned - mitigate:

When the Original Report was prepared no measures were established because the causes of the accident were not yet clarified by the internal and administrative inquiries that were carrying out.