

Gasbrand på ett hotell.

960821

Vid påfyllning av propangas (LPG) från en tankbil begick tankbilschauffören som var ansvarig för lossningen ett misstag. Då slangen brast hann han inte stänga av flödet. Propanångorna nådde en gnistkälla, exploderade och antände hotellet som totalförstördes av branden. Gästerna evakuerades från hotellet. Chauffören avled till följd av skadorna han ådrog sig.

Inblandade ämnen och mängder

	CAS Nr.	Mängd
propan	74-98-6	0,6 ton

Skador:

Människor:	En person omkom.
Materiella:	Hotellet totalförstördes. En närliggande bungalow fattade också eld och skadades.
Miljö/ekologi:	Inga effekter rapporterade.
Infrastruktur:	Inga effekter.

Erfarenheter redovisade (Ja/Nej): Nej

Report Profile

Identification of Report:

country: FA ident key: 1800_192_01

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

Date of Major Occurrence: Time of Major Occurrence

start: 21/08/1996 start: 09:20:00

finish: 21/08/1996 finish: 10:00:00

Establishment:

name:

address:

industry: 2022 fairgrounds/amusements

hotel trade

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_192_01

Accident Types:

release: Yes explosion: Yes

water contamination: No other: No

fire: Yes

description:

One operator (worker) deadly injured (with a fatal injury), residents (guests) evacuated, total (complete) destruction of the hotel.

Substance(s) Directly Involved:

toxic: No explosive: Yes

ecotoxic: No other: No

flammable: Yes

description:

propane

Immediate Sources of Accident:

storage: Yes transfer: No

process: No other: No

description:

filling hose (pipe) from a road tanker

Suspected Causes:

plant or equipment: Yes environmental: No

human: Yes other: No

description:

hose(pipe) in a bad shape (condition), during the transfer the (safety rules) instructions have not been respected

Immediate Effects:

material loss: Yes

human deaths: Yes

human injuries: No community disruption: No

other: No

ecological harm: No

national heritage loss: No

description:

1 operator was deadly injured (with fatal injuries), the Hotel was destroyed

Emergency Measures taken:

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

external services: No **restoration:** No

sheltering: No **other:** No

evacuation: Yes

description:

evacuation of the clients (guests) and the neighbours

Immediate Lessons Learned:

prevention: Yes **other:** No

mitigation: No

description:

review of the procedures, analysis of the possibilities to reinforce the regulations (norms)

A Occurrence Full Report

country: FA **ident key:** 1800_192_01

1 Type of Accident

remarks: the cloud which was formed after the gas release ignited causing a

flash-fire outside of the hotel and a deflagration inside the hotel. This

explosion initiated a fire inside an adjacent (nearby) bungalow

2 Dangerous Substances

remarks: the propane present onsite was contained: in the hotel tank which was being

filled up (0,6 tonnes); and in the supplying lorry (road-tanker) with a

capacity of 6.7 tonnes

3 Source of Accident

illustration: Regulations (instructions) on the use of the engines of road tankers during

loading and unloading operations of LPG, a detailed technical scheme of a

tank and the equipment of a small carrier (road tanker), two schemes on the

functioning ... see Appendix Full Report A / source of accident -

illustration

remarks: it has to be pointed out that the (human) failure of the operator (worker)

and (of the) hose (pipe) (e.g. the bad state of the same) indicate clearly

the responsibility of the company charged (entrusted with) the fuel (LPG)

supply.

4 Meteorological Conditions

precipitation none: fog: rain: hail: snow:

Yes No No No No

wind speed (m/s):

direction (from):

stability (Pasquill):

ambient temperature (°C):

remarks: a weak (light) wind

5 Causes of Major Occurrence

main causes

technical / physical 5101 operation: vessel/container/containment-equipment failure

- not applicable -

- not applicable -

- not applicable -

- not applicable -

human / organizational 5401 person: operator error

- not applicable -

- not applicable -

- not applicable -

- not applicable -

remarks: If the operator (worker) would have respected (observed) the transfer (unloading) procedure, he would have held in his hand the emergency shut-down control allowing to stop the release consequent to the rupture of the hose(pipe).

6 Discussion about the Occurrence

- not applicable -

Type of Accident country: FA ident key: 1800_192_01

event:

major occurrence 1307 explosion: VCE (vapour cloud explosion; supersonic wave front)

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

associated event 1401 other: combustion products into air

Dangerous substances

country: FA ident key: 1800_192_01

a) total establishment inventory

CAS number: 74-98-6 **identity:** propane

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): 6

use of substance as: - not applicable -

b) substance belongs to relevant inventory directly involved: Yes

actual quantity: 67 **potential quantity:** -1

c) substance belongs to relevant inventory indirectly involved: No

actual quantity: 0 **indir_pot_quant:** 0

Source of Accident - Situation **country:** FA **ident key:** 1800_192_01

situation

industry

initiating event - not applicable -

associated event - not applicable -

activity/unit

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

initiating event - not applicable -

associated event - not applicable -

component

major occurrence 4011 general pipework/flanges

initiating event - not applicable -

associated event - not applicable -

B Consequences Full Report

country: FA **ident key:** 1800_192_01

1 Area concerned

affected

extent of effects installation: Yes

establishment: Yes

off-site; local: Yes

off-site; regional: No

off-site; transboundary: No

illustration of effects (suspected regional and transboundary effects are indicated in the report,

which... see Appendix Full Report B / area concerned - illustration of

effects

remarks the hotel collapsed completely, whereas the neighbouring (adjacent) house (bunga... see Appendix

Full Report B / area concerned - remarks

2 People

establishment popul. emergency personnel off-site population

total at risk -1 -1 -1

immediate fatalities -1 -1 -1

subsequent fatalities 1 0 0

hospitalizing injuries 0 0 0

other serious injuries 0 0 0

health monitoring 0 0 0

remarks the person with fatal injuries is the propane road-tanker driver, charged with t... see Appendix

Full Report B / people

3 Ecological Harm

pollution/contamination/damage of:

- residential area (covered by toxic cloud) not applicable
- common wild flora/fauna (death or elimination) not applicable
- rare or protected flora/fauna (death or elimination) not applicable
- water catchment areas and supplies for consumption or recreation not applicable
- land (with known potential for long term ecological harm or not applicable

preventing human access or activities)

- marine or fresh water habitat not applicable
- areas of high conservation value or given special protection not applicable

remarks - not applicable -

4 National Heritage Loss

effects on:

- historical sites None - historic monuments None
- historic buildings None - art treasures None

remarks - not applicable -

5 Material Loss

establishment losses off site losses

costs (direct costs to operator) (social costs)

in ECU FFR ECU FFR

material losses -1 -1 -1 -1

response, clean up, restoration -1 -1 -1 -1

remarks - not applicable -

6 Disruption of Community Life

establishment/plant evacuated disabled/unoccupiable destroyed

- nearby residences/hotels Yes Yes Yes
- 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 Yes No No

- media interest Yes No No

- political interest Yes No No

remarks - not applicable -

7 Discussion of Consequences

C Response Full Report

country: FA ident key: 1800_192_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

no information is given

measures to mitigate consequences:

no information is given

useful references:

no information is given

5 Discussion about Response

- not applicable -

Appendices for the FA / 1800_192_01 report

Appendix Full Report A / source of accident - illustration:

Regulations (instructions) on the use of the engines of road tankers during loading and unloading operations of LPG, a detailed technical scheme of a tank and the equipment of a small carrier (road tanker), two schemes on the functioning (operation) and maintenance during the delivery of LPG, one for the start of the delivery operation and one for the end of the delivery operation.

Appendix Full Report B / area concerned - illustration of effects:

(suspected regional and transboundary effects are indicated in the report, which apparently is wrong)

Appendix Full Report B / area concerned - remarks:

the hotel collapsed completely, whereas the neighbouring (adjacent) house (bungalow) took fire

Appendix Full Report B / people:

the person with fatal injuries is the propane road-tanker driver, charged with the filling of the hotel tank.