

Klorutsläpp från en kloralkalifabrik.

850714

MARS 1985_02

Mycket kortfattad

Efter en regenerering av ett aktivt-kolfilter uppstod en brand då filtret skulle sättas i bruk igen. Klorgas slapp ut i omgivningen.

Inblandade ämnen och mängder

	CAS Nr.	Mängd
klor	7782-50-5	550 kg

Skador:

Människor: Inga.

Materiella: Inga angivna.

Miljö/ekologi: Växtligheten i närheten av fabriken skadades av klorutsläppet.

Infrastruktur: Inga.

Erfarenheter redovisade (Ja/Nej): Ja.

Kortfattat anges förebyggande åtgärder.

Report Profile

Identification of Report:

country: FA ident key: 1985_002_01

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

Date of Major Occurrence: Time of Major Occurrence

start: 1985-07-14 start:

finish: finish:

Establishment:

name:

address:

industry: 2001 general chemicals manufacture

Chlorine-Alkali Electrolysis

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: 1985_002_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: Yes explosive: No

ecotoxic: No other: No

flammable: No

description:

- Chlorine (C.A.S. CODE: 7782-50-5, E.E.C. CODE: 017-001-00-7): amount involved = 550 kg.

Immediate Sources of Accident:

storage: No transfer: No

process: No other: Yes

description:

The accident occurred after the regeneration of an active coal filter in a chlorine-alkali electrolysis.

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 under investigation.

Immediate Effects:

material loss: Yes

human deaths: No

human injuries: No community disruption: No

other: No

ecological harm: Yes

national heritage loss: No

description:

MATERIAL LOSS:... 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:

INTERNAL TO THE ESTABLISHMENT:

The Emergency plant shut-down was activated.

Immediate Lessons Learned:

prevention: No **other:** No

mitigation: No

description:

... see Appendix Short Report / description of immediate lessons learned

A Occurrence Full Report

country: FA **ident key:** 1985_002_01

1 Type of Accident

remarks: After the regeneration by desorption of an active coal filter by means of air, a chlorine-iron fire occurred when the chlorine was reloaded (code 1999). The fire resulted in a chlorine release into the environment (code 1101).

2 Dangerous Substances

remarks: The total establishment and the potential directly involved inventories of chlorine refer to the amount involved in the accident.

3 Source of Accident

illustration: - not applicable -

remarks: The accident occurred after the regeneration of an active coal filter(codes 3104 and 4007) in a chlorine-alkali electrolysis (code 2001).

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 under investigation

(code 5501).

6 Discussion about the Occurrence

- not applicable -

Type of Accident country: FA ident key: 1985_002_01

event:

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

initiating event 1999 other: other

associated event - not applicable -

Dangerous substances

country: FA ident key: 1985_002_01

a) total establishment inventory

CAS number: 7782-50-5 **identity:** Chlorine

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): 0,55

use of substance as: NORMAL FINISHED PRODUCT

b) substance belongs to relevant inventory directly involved: Yes

actual quantity: 0,55 **potential quantity:** 0,55

c) substance belongs to relevant inventory indirectly involved: No

actual quantity: -1 **indir_pot_quant:** -1

Source of Accident - Situation country: FA ident key: 1985_002_01

situation

industry

initiating event 2001 general chemicals manufacture

associated event - not applicable -

activity/unit

major occurrence 3104 process: physical operations (mixing, melting crystallizing, etc.)

initiating event 3104 process: physical operations (mixing, melting crystallizing, etc.)

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:** 1985_002_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 - not applicable -

remarks In the Original Report there is no evidence of significant effects outside the e... 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)** not applicable

- **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** Suspected

preventing human access or activities)

- **marine or fresh water habitat** Suspected

- **areas of high conservation value or given special protection** Suspected

remarks The chlorine release caused damages (etching) to the vegetation outside the esta... 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 ECU

material losses

response, clean up, restoration

remarks The chlorine release caused material damages inside the establishment but no dat... 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** Yes No No

- **media interest** No No No

- **political interest** No No No

remarks In the Original Report there is no evidence of significant effects outside the e... see Appendix

7 Discussion of Consequences

Ecological Components involved

country: FA ident key: 1985_002_01

type: 6108 inland: woodland; predominantly or totally natural

threatened: not applicable affected: not applicable

type: 6107 inland: woodland; predominantly or totally plantation

threatened: not applicable affected: not applicable

C Response Full Report

country: FA ident key: 1985_002_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

- not applicable -

measures to mitigate consequences:

- not applicable -

useful references:

- not applicable -

5 Discussion about Response

- not applicable -

Appendices for the FA / 1985_002_01 report

Appendix Short Report / description of accident types:

ACCIDENT CASE HISTORY DESCRIPTION:

After the regeneration by desorption of an active coal filter by means of air, a chlorine-iron fire occurred when the chlorine was reloaded. The fire resulted in a chlorine release into the environment.

Appendix Short Report / description of immediate effects:

MATERIAL LOSS:

The chlorine release caused material damages inside the establishment but no data are available about the cost of the material losses.

ECOLOGICAL HARM:

The chlorine release caused damages (etching) to the vegetation outside the establishment.

Appendix Short Report / description of immediate lessons learned:

Appendix Full Report B / area concerned - remarks:

In the Original Report there is no evidence of significant effects outside the establishment except the etching of vegetation.

Appendix Full Report B / ecological harm:

The chlorine release caused damages (etching) to the vegetation outside the establishment. From the Original Report it is not fully clear if vegetation was natural or not.

Appendix Full Report B / material loss:

The chlorine release caused material damages inside the establishment but no data are available about the cost of the material losses.

Appendix Full Report B / disruption of community life:

In the Original Report there is no evidence of significant effects outside the establishment except the etching of vegetation.