



Ministerie van Sociale Zaken en
Werkgelegenheid



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safety, major risks, productsafety and
market surveillance

Mutual Joint Visit 2016 - Workshop on Explosives and
Pyrotechnics



S.E. Fireworks

- Stored and sold firework for concerts and shows
- Founded in 1977 when they produced fireworks (permission for 18.450 kg)
- The firework was produced in China since 1985
- In 1998 the company was sold to 2 employees
- Located on a small old industrial area nearby the Grolsch brewery and nearby the residential area Roombeek.



S.E. Fireworks

- Permit for 158.500 kilo firework
- Permit lasted to 2002 and then the company had to move
- The location had:
 - a bunker with 17 compartments
 - 2 warehouses,
 - 16 containers
 - 7 temporary garage boxes
- Sings of illegal activities since the end 80's



Site before 13 May 2000



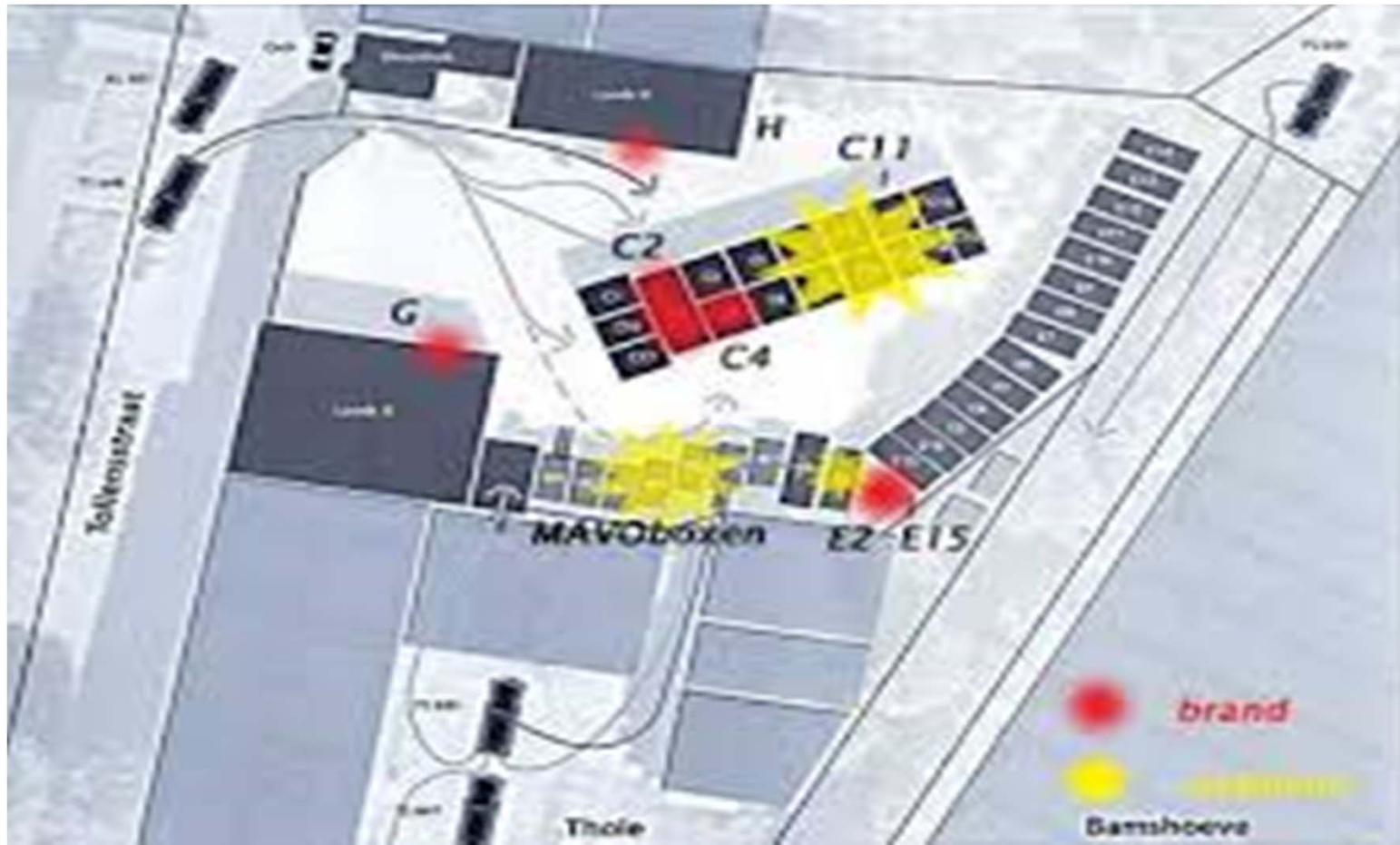


Incident on 13 May 2000

- 13.30 Handyman is collecting a machine
- 14.45 neighbors hear popping of firework
- 14.50 small fires in the grass around the storage places
- 15.00 heavy rumble in a warehouse
- 15.02 Police reports popping and an explosion nearby the brewery
- 15.03 Report of a fire in the outside area of the company
- 15.05 Fire brigade goes to the site
- 15.08 Fire brigade arrives at the site and finds several fires in the assembly and packaging area G, on the roof of the warehouse H and garage boxes
- 15.15 Owners arrive at the site and tell the fire brigade that there is only fireworks from category 1.4
- 15.22 Fire in storage area C4 and fireworks is getting everywhere



Site lay-out during the incident





Incident on 13 May 2000

- 15.28 Fire in 2 containers E2 and E15
- 15.30 Fire is several places
- 15.34 1st explosion in container E2 en more fireworks is shot from C4
- 15.34 Garage boxes explode quickly one after another
- 15.35 explosion in C11 followed by the rest of the bunker and other containers
- Fireworks and debris is spread over the area and hundreds offires start





The incident





Result of the incident

- 23 people died (including 4 firemen)
- 947 injured (525 hospitalised)
- 42 hectare was ruined
- 200 houses were completely destroyed
- another 282 damaged in the direct area
- 1500 more outside the area
- The costs were around 1 billion Euro



The incident in view





Result of the incident – 2 weeks later





Reason for the incident

- There was more firework on the site than permitted (177.000 kilo)
- Many containers were built without permission, wrong building demands and on the wrong place in case of an emergency
- Most of the firework wasn't category 1.4
- There was firework out of the package on places where this was not allowed
- There are several scenarios for the start of the fire:
 1. In storage unit C2 a malfunctioning lamp created a short circuit which started the fire. In that storage unit there were fireworks out of the packaging which were seen at 14.45 by neighbors. The fact that the fireworks went straight up can't be explained.
 2. The company and workers were selling and storing illegal fireworks and there was a demonstration that afternoon. The fire was caused when "old" fireworks were tested and this went wrong.
 3. Self-combustion of fireworks in the boiler-room
 4. Arson in storage unit C2 where shells were stored



Conclusions Commission Oosting on the government

- The government failed in the permit procedure on several points and afterwards in inspecting and upholding the permit
- Containers were being placed without building permission on places which were crucial for emergency response units and these containers did not measure up to the building demands and the government knew this
- The labeling of the firework in china was wrong too elope higher transportation cost and the government knew this
- The company would transport and deliver fireworks without the proper permits
- All the information was available with too many different inspections and government parties which did not communicate with each other
- The government did not learn from a previous incident and did not recognize external safety policy as important
- The fire brigade had no action plan, no overview on the situation and wasn't prepared



Legislative changes and lessons learned

- No firework or explosion storage and handling in residential areas
- The safety contour on firework and explosives sites has been enlarged in the legislation
- Fewer government parties involved
- Better communication between government parties
- The quality of the (local) government has to be improved on permitting, inspection and enforcement (special environment agencies)
- Integral environmental and planning legislation
- More control on fireworks from China which often was labeled wrong
- Modification of European legislation