

Lessons Learned Database Individual Incident Summary Report



Incident Type				
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France				
Toulouse	Date			
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Incident Description A huge explosion occurred approximately 20 minutes after a small quantity of sodium dichloroisocyanurate (C ₃ C ₆ N ₃ N ₄ NaO ₃ or "SDIC") was spilled onto a pile of off-specification ammonium nitrate (NHaNO ₃ or "AN") which had been stored in Shed 221 for recycling. The blast was equivalent to a magnitude 3.4 earthquake on the Richter scale (20 - 120 tonnes of AN detonated). Much of the plant was destroyed and significant escalation occurred (including a secondary explosion) at a neighbouring hazardous process plant owned by others. More than 1000 homes were rendered uninhabitable and many more were damaged. More than 82 schools were also damaged. Almospheric pollutants released after the detonation of the AN included nitric acid (HNO ₃), ammonia (NH ₃), nitrogen dioxide (NO ₂) and nitrous oxide (N ₂ O ₃) ammonia (NH ₃), nitrogen dioxide (NO ₂) and nitrous oxide (N ₂ O ₃) and minous oxide (N ₂ O ₃) ammonia (NH ₃), nitrogen dioxide (NO ₂) and nitrous oxide (N ₂ O ₃) and nitrous oxide (N ₂ O ₃) and minous oxide (N ₂ O ₃) and minous oxide (N ₂ O ₃ O ₃) ammonia (NH ₃ O ₃) introgen dioxide (NO ₂) and nitrous oxide (N ₂ O ₃ O ₃) and minous oxide (N ₂ O ₃ O ₃) and nitrous oxide (N ₂ O ₃			Toulouse	
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