

GUILTY OCTEL SHOW NO REMORSE

Chemical Co fork out £290,000 for toxic leak that "didn't" endanger community

It was revealed in court that the root cause of the major emergency at the Associated Octel chemical works in Ellesmere Port on February 1st 1994 was poor maintenance procedures.

The damage limitation process began immediately. Within hours of the leak of approximately five tonnes of ethyl chloride from their lead additives factory in Ellesmere Port on the Wirral, north west England, Associated Octel with the support of its apologists in government and industry began explaining away the "accident" of February 1 1994. And so it continued. Exactly two years later, on February 2 1996, at Chester Crown Court Octel's counsel agreed to plead guilty to the charges that it failed to ensure the health and safety of workers and other persons provided that the Health and Safety Executive (HSE) stated that the prosecution under sections 2 and 3 of the Health and Safety at Work Act, 1974 referred to firefighters and not to neighbouring communities.

Although Octel disagreed with the HSE about the cause of the leak judge Elgan Edwards, imposing a fine of £75,000 for each of the two charges and costs of £142,655, said that Octel "should have been more alive to the possible risks involved in this clearly hazardous operation". That it has taken this "accident" to force Octel to install a new ethyl chloride plant with proper, adequate environmental control equipment shows the contempt this company has for the neighbouring community. But for the heroism of workers and firefighters, who risked their lives, this "accident" might have had tragic consequences for the people of Ellesmere Port. Octel were lucky. They got away with not having automated, remote controlled shut-off valves, a run-off lagoon for spills and adequate environmental control equipment. They had played the risk management game and got away with it.

Despite the harrowing reports from firefighters, residents and journalists it was clear in the aftermath of the "accident" that the industry, regulatory authorities and central government would try to explain away the events of February 1, 1994, when Ellesmere Port was "twenty minutes" away from a catastrophe. The government's procrastination over a public inquiry into the incident, saying that the HSE's investigation would be adequate, in the weeks that followed was seen by

Communities Against Toxics coordinator Ralph Ryder as the ruling elite, "looking after its friends and their interests in industry". So it has proved. Officially Octel endangered the lives of its workers and the firefighters who had dutifully stemmed the leak and fought the fire but they did not endanger the people of Ellesmere Port. Thus the fine at Chester Crown Court was a 'slap on the wrist' for a company that records its profits in millions. "They probably took it out of the Old Holborn tin they keep the tea kitty in," said Ralph Ryder

"We always thought, no, we always knew something like this would happen if the inquiry was conducted behind closed doors". said Pat Blackmore a resident of Crescent Road. "Our mistrust in the Health and Safety Executive has proved to be more than justified".

The British chemical industry's third major accident in less than two

agency team the highly flammable liquid; and putting the emergency services into action.

The first fire engines, four from Cheshire, arrived just after nine o'clock. Donning protective clothing the firefighters began to disperse the cloud of ethyl chloride which was being taken on an easterly wind away from Ellesmere Port.

At 9.26pm the firefighters managed to shut valves in the proximity of the leak. Shortly after this a decision was taken to evacuate hundreds of workers from factories to the east of Octel's complex which is located on a 87 acre industrial site between the Manchester Ship Canal and the M53 motorway, approximately 1400 metres from the Civic Centre and main shopping arcade. There are residential properties approximately 500 yards away from the factory.

Police, who had told the media to broadcast messages about the accident, decided not to directly inform

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years began shortly before half past eight on the evening of February 1 1994 when one of Octel's 150 workers on duty heard a leak alarm. Octel's management ordered the sounding of two sirens to alert local residents of the accident. Five tonnes of ethyl chloride had begun to leak from a reactor processing 48 tonnes of the chemical.

Following an 999 call from Octel, the area's chemical emergency programme 'Operation Cloudburst' was launched, bringing in two hundred firemen from Merseyside, Cheshire, North Wales and Manchester in an attempt to control alongside Octel's own emer-

gencies in nearby townships because, according to one police spokesman, "it would only have created unnecessary panic". They did attempt to alert residents in the streets adjacent to Octel and messages were subsequently broadcast on radio and a newsflash went over local TV at 10.40pm.

By then the escaping ethyl chloride had ignited, sending flames and a thick black toxic plume into the Merseyside sky. Between eight minutes past ten, when the gas ignited causing a flashback, and ten to twelve, with the fire at a critical stage, the firefighters pulled back from the danger area on three occa-

sions. By now 25 fire engines were fighting the flames, pouring 225,000 litres of foam and 500,000 litres of water into the disintegrating reactor which had contained the ethyl chloride. By eight the following morning the fire was out and the inquest had begun.

Octel's safety procedures state that "fugitive emissions noted during routine plant tours by the process operator are reported to the supervisor who ensures action is taken to minimise the emission and arrange for repairs".

According to Ralph Ryder this was probably the only thing Octel managed to get right on the night. "We weren't far off another Bhopal. People could have been dead in their beds for all they knew about this so-called accident. All too often communities living in heavily industrialised areas are just treated like mushrooms. They are kept in the dark and fed bullshit, which is what happened on Tuesday, February 1

"Despite what we were told immediately after the accident, it is now clear that neither Octel nor the emergency services managed to tell people what was going on. Their pathetic attempts to inform the public through the media failed because most people simply did not hear the warnings on the radio or the newsflash on the TV. It is a fact that most people only found out about it the following morning when it was all over. It was only by the grace of God that the wind was blowing in the other direction, because we don't know what the effect on the people of Ellesmere Port might have been."

During the week after the accident angry communities demanded to know why they had been kept in the dark. Local journalists laced their reports with quotes from people who said they knew nothing of the leak and subsequent explosion. Residents from the streets opposite Octel's had heard the sirens but as they "hear it all the time" did not associate it with anything out of the ordinary. Those who did hear it and rang Octel were told there was no danger. Others did not hear the sirens or were asleep.

As the residents of Ellesmere Port and the surrounding townships began to contemplate what had happened at Octel the previous evening - several people arrived at work with streaming eyes and sore throats - fire chiefs prepared to give their customary briefing to the media. "At first we sent two crews from Ellesmere



Port to the incident, but the leak just kept coming," Cheshire Fire Brigade's Evan Morris told the assembled press. "When the fire broke out we were told we had 30 minutes to bring the flames under control, otherwise the integrity of the tanks would be lost and we would have had to evacuate. At this stage we took the decision to launch a major foam attack to prevent the fire from becoming a possible disaster."

Because the reactor had been specially treated to insulate it from fire for at least two hours the fire chiefs knew they had until ten past twelve to control the blaze. For 100 minutes the firefighters fought the flames, retreating on three occasions as the intensity of the blaze threatened more explosions. Seven firemen from Cheshire and Merseyside needed medical treatment.

At ten to twelve the fire chiefs had the flames under control. So, asked the press, did this mean we were twenty minutes from disaster? Cheshire Chief Fireman Dennis Davis concurred with his colleague. "If the container (reactor) had gone up we would have been forced to withdraw to a safe distance and leave it to burn, leading to a significant off-site release."

Octel, the local authority and the government saw the events of that Tuesday night differently. Ellesmere Port had not, as they put it, "been 20 minutes from Armageddon". Octel's health and safety manager Rod Atkins got himself embroiled in pedantics, insisting that there had been a flash-over not an explosion

It is the presence on site of Chlorine, Lead Alkyls, Ethyl Chloride, Didromoethane and Methyl Chloride which requires the Ellesmere Port plant to operate within the CIMAH regulations.

Because of the nature of these chemicals, we go to great lengths to ensure that they are always contained.

However, a major accident involving any of them could result in off-site harm to people and the local environment.

Associated Octel Public Information Sheet.

when the ethyl chloride ignited. "An explosion suggests mass devastation when in reality there was only fire damage. The vessels concerned were fully protected by cladding for a minimum of two hours, giving more than sufficient time for the fire brigade to fight the fire." Ellesmere Port & Neston Borough Council chief executive Stephen Ewbank said they had been practising Operation Cloudburst and were ready to handle anything "as a result of the live situation". In the House of Commons on Friday, February 11, in answer to a motion tabled by Ellesmere Port Labour MP Andrew Miller, who called for a public

Associated Octel is 89% owned by the US Great Lakes Chemical Corp., In the year of the emergency (1994) it accounted for 60% of Great Lakes \$405 million operating profit and 26% of its \$2billion in sales

inquiry, the Tory employment minister Michael Forsyth said a decision on a public inquiry would have to await the outcome of the HSE's investigation. Despite the support of 135 MPs for a public inquiry, Forsyth was ambivalent about the accident. "I have been advised by the Health and Safety Executive that 20 minutes to disaster is a gross exaggeration."

Gross exaggeration or not the general feeling among the immediate communities indicated that they wanted a public inquiry. "We are sick and tired of seeing investigations like this held behind closed doors," Ralph Ryder said a week after the disaster. "As this was a major incident involving dangerous chemicals, we believe we are entitled to be there when explanations are given. If there is nothing to hide there should not be a problem and Associated Octel and the authorities should welcome an open door policy."

Not content to wait for action from the regulatory authorities the residents closest to the factory issued a statement, following a meeting of concerned people in Crescent Road, requesting a meeting with Octel to discuss the company's safety processes and what efforts it was making to protect the community. The residents added that they wanted to know why "the emergency was so poorly handled".

One resident, Pat Prescott, said her two sons had felt a worsening of their asthma conditions following the fire. "Nearly all residents complained of headaches and sore throats and after visiting the asthma clinic the three family members who have asthma have shown a deterioration of their condition." It has been estimated that roughly half of the 35

children who live in Crescent Road have asthma.

Within a fortnight of the "accident" the local community nearest Octel were demanding as a matter of course a public enquiry. Cora Lonsdale was adamant. "We are entitled to a public enquiry and they are trying to say it wasn't serious. They are trying to get away with it."

Andrew Miller, who had told the House of Commons that the HSE investigation would be too narrow, said that a public enquiry "would embrace the legitimate concerns of residents in the area, dispense invaluable advice to our emergency services, who dealt with this incident

in such a sterling fashion, and would serve the industry itself by providing extensive guidelines to help prevent such accidents in the future". Miller said he was baffled by the government's response. The cynical view, as more than 6,000 signed a petition demanding a public enquiry, was that the government was only interested in looking after industry. After all the balance of payments had to be maintained. In 1993 Octel exported 92,000 tonnes of tetra-ethyl lead and tetra-methyl lead worth £240 million.

Associated Octel has been in Ellesmere Port since the late forties manufacturing lead additives for petrol. According to Bob Larbey, the company's manager of external affairs, Octel is a safe place to work in. Octel management stress that during 40 years in the area they have had few incidents and none of any significance except a chimney fire in 1986. A look at Octel's recent history shows that its safety record is not as unblemished as the company would like the public to believe. In March 1993 a chlorine leak from Octel reduced workers in a nearby factory to a heap as they succumbed to the toxic fumes, gasping for breath. But this incident did not go unreported. The local media ran the story and claimed that 14 Octel workers exposed to the chlorine had received medical treatment.

November 1993 Octel admitted to the regulatory authorities an unauthorised release of approximately one tonne of ethyl chloride at ten to seven on November 11. Octel also admitted there had been two similar escapes of ethyl chloride on June 11 and July 27, 1992. Action, the company stressed, had been completed to prevent recurrence of the specific causes. Apart from the application in

1989 of a protective insulation to vessels containing toxic substances following the first safety review of the Octel site under the Control of Industrial Major Accident Hazards (CIMAH) Regulations 1984 there is no evidence, claim local anti-toxic campaigners, that the company has gone out of its way to implement comprehensive safety and environmental control features. During the court case Octel's counsel said the company had invested £2.1 million in safety measures between 1987 and 1992. "Did all this money go on insulation?" Ralph Ryder of CATS wondered, "because there's not much evidence it went on protecting

the workers and the community from a potential disaster like this." Perhaps, he also wondered, that was why two workers, with more than 20 years experience in Octel, rang him to explain their concerns about health and safety in the factory since Great Lakes took over in 1988, immediately reducing maintenance staff.

"When I asked the Health & Safety Executive official if checks were made on maintenance records etc by local and regulatory official I was assured they were. This is obviously not the case here or the inadequacies in the maintenance procedures would have been picked up before the emergency". said Pat Blackmore.

In isolation these incidents can be dismissed by Octel as part of the everyday running of the factory until we look at the company's application for an integrated pollution license (IPC) under the EPA legislation. On 29 July 1992 Her Majesty's Inspectorate of Pollution (HMIP) requested additional information from Octel to complete the IPC authorisation.

"What standby/emergency systems are installed to prevent/minimise any potential environmental

Ethyl chloride and methyl chloride are highly flammable liquefied gases and ignition of a major release of either of these chemicals could result in a fire or, in exceptional circumstances, an explosion. Both events would generate a toxic smoke which could cause off-siter effects.

Associated Octel Public Information Sheet

The Health and Safety Executive has assessed that in the very unlikely event of a major accident the area most likely to be affected is within 1500 meters of the site boundary.
Associated Octel Public Information Sheet.

releases in the event of a plant item failure (including monitoring equipment)?" the HMIP asked. Octel were also asked to provide details of the programme for improvements which would eliminate and reduce emissions.

The HSE are empowered under the legislation to investigate not only the cause of the ethyl chloride leak but the complaints from the public about the ineffectiveness of the emergency plan. As Dr Roger Nourish put it, "the extent to how the emergency plan should have been implemented is paramount".

Because of the quantity of chemicals stored at its site which form part of the aggregation of chemicals in the area, Octel comes under the 1982 EC Seveso directive on major accidents involving the chemical industry. Off-site emergency plans are a statutory requirement under the Seveso Directive and are not, as one Octel manager said after the fire, solely the responsibility of the local

authorities and the emergency services.

Octel has said that it conforms with the necessary regulations and provides regular information to the public (leaflets on how to respond to a potential disaster have been circulated every two years since 1986, according to the company - residents claim they haven't seen a leaflet in two years) yet the people of Ellesmere Port and the nearby townships believe they came very close to what has euphemistically been described locally as THE BIG ONE - the total destruction of a vast area of the Wirral and would never have known about it.

This was the essential point made in a letter from Don Horwell to a local paper. "The nearest we, the local residents as well as the majority of the rest of the nation, ever come close to hearing the truth about these so-called accidents is immediately after the event, with the media on the scene and before the company have any chance to prepare their non-committal story and begin the cover up. It is at this point where they let some if not all of the truth slip out, as occurred on this occasion."

Despite the dismissive comments by the government in the aftermath of the "accident" the possibility of a BLEVE (a boiling liquid expanding vapour explosion) was very real. During the court hearing the HSE's counsel commented on this and said a BLEVE could have generated "missiles that could have gone into other parts of the plant and one can envisage a toxic gas cloud that might

have moved off the site". Trevor Britton, the HSE's Principal Inspector for the chemical industry in Cheshire, said that Octel "did not pay sufficient regard to the possibility of a substantial leak" and added that chemical companies should carry out "detailed risk assessments designed to prevent or, failing that, control the loss of dangerous chemicals".

The fact that there were no records of which components had been repaired, replaced or which were likely to fail through age means that the people of Ellesmere Port have undoubtedly been in very real danger for a considerable length of time from this chemical plant" said Ralph Ryder, "I am disgusted that an official regulatory body can lawfully participate in a 'deal' behind closed doors to enable a company to incur a lesser penalty. It is also very disturbing that the legal system which is supposed to be in place to protect the public from such irresponsible practices within industry and general cowboy operations has sanctioned such a deal."

"The extent to how the emergency plan should have been implemented is paramount".
Dr Roger Nourish
Health & Safety Exc

"Ethyl chloride is highly flammable and represents a very dangerous fire hazard when exposed to heat or flame. The vapour is heavier than air and may travel a considerable distance to a source of ignition and flashback.
The vapour forms explosive mixtures with air and the gas is a severe explosion hazard when exposed to flame. Cylinders containing ethyl chloride are liable to explode quickly if involved in a fire.
When heated to decomposition ethyl chloride produces toxic fumes of phosgene, hydrogen chloride and carbon monoxide.
It also generates toxic and corrosive fumes on reaction with steam or water."

Chemical Safety Data Sheets:
 The Royal Society of Chemistry

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Octel is currently the worlds largest manufacturer of transport additives. The Octel group contributes more than £225 million annually to the UK's balance of trade. It was recently announced (April) that in an effort to improve efficiency and keep up with rival companies up to 400 of its workforce could go.

Highest Fines Against Chemical Industry

BP Oil, Grangemouth: Fined a total of £750,00 in March 1988 for two incidents in March 1987 which killed three people.

Nobel Explosives (subsidiary of ICI), Peterborough: Fined £250,000 in April 1990 for an incident in March 1989 which killed a fireman and injured 100.

Hickson and Welch, Castleford: Fined £250,000 in July 1993 for an incident in September 1992 which killed five.

BP Chemicals, Grangemouth: Fined £200,000 in April 1994 for an incident in February 1992 which killed one and injured three.

Coalite, Bolsover: Fined £150,000 in February 1996 for failing to control emissions from incinerator during the eighties and early nineties. Also ordered to pay HMIP's costs of £300,000.

In 1993 Coalite paid £200,000 compensation to neighbouring farmers for contaminating their lands with dioxin. (The fine is a record for HMIP; the ruling judge said that if Coalite hadn't pleaded guilty he would have imposed a fine of £200,000.)

Associated Octel, Ellesmere Port: Fined £150,000 in February 1996 for breaches of safety regulation as a result of an explosion in February 1994. Also ordered to pay costs of £142,655.

Shell, Stanlow: Fined £100,000 in December 1991 for an incident in November 1990.

Nobel, north Wales: Fined £100,000 in March 1990 for an incident in 1988 which killed two.

Shell UK, Shellhaven: Fined £100,000 in May 1992 for an incident in May 1991 which injured 37 including 10 who breathed toxic substances.

Allied Colloids, Bradford: Fined £100,000 in January 1993 for an incident in July 1992.

Octel's prosecution under sections 2 and 3 of the Health and Safety at Work, Act, 1974 resulted in a fine that is no more than a slap on the wrist. BP Oil's combined fine of £750,000 remains the highest since the legislation was changed to allow for higher fines in October 1992. In the year immediately after the change the Health and Safety Executive won 1,843 cases out of 2,129 prosecutions in Crown and Magistrates Courts resulting in an average fine of £1,384.