A major investigation into the blasts at the Buncefield oil depot has begun.

The Health and Safety Executive (HSE) said it would be the most wide-ranging investigation of its kind since the Potters Bar train derailment in 2002.

Justin McCracken, of the HSE, said he hoped to produce an interim report "within weeks".

Prohibition notices have been issued at the Hertfordshire site to prevent firms from clearing up until experts say it is safe for the people and environment.

The Health and Safety Commission, which oversees the HSE's work, served the notices on Hertfordshire Oil Storage Ltd (a joint venture between Texaco and Total) and British Pipeline Agency Ltd.

The commission said being issued with a notice did not suggest the firms had done anything wrong.

Police have said they had found nothing "malicious" in the incident, which happened in Hemel Hempstead on 11 December.

The HSE is now in charge of the full investigation.

At a press conference, deputy chief executive Mr McCracken revealed the HSE had reviewed and approved fire measures in the weeks leading up to the blasts.

He said in the "specific" areas they looked at "nothing came out which caused us undue concern".

According to the Health and Safety Commission, the inquiry would consider issues such as the factors leading up to the blaze, what ignited it, and the root causes.

The commission's chairman, Bill Callaghan, said the inquiry would also "make recommendations for future action to ensure the effective management and regulation of major action risk" at sites similar to Buncefield.

An initial report would be prepared as soon as "main facts" had been established, and made public unless there were legal obstacles, he said, adding that it would be chaired by an independent figure

Mr Callaghan said his HSE colleagues investigated many incidents each year, and it was clear Buncefield was "no routine incident".

He said: "It's considered by the HSE and the Environment Agency to be a significant event.

"In regard to the severity of the incident, the degree of public concern, and the enforcing authority's previous involvement with the duty holders at the depot, it is therefore one that merits a major incident investigation."

An HSE spokesman said the prohibition notices were served on two of the three firms based at the depot as a way of controlling the recovery operation after such a major incident.

"We were very fortunate that there were no deaths in this incident.

"Our aim is to ensure that in recovering the site that work is not done that would inadvertently create a risk to people, or the wider environment," said the spokesman.

Winners and losers in Hong Kong

One of the stated ambitions at the 2001 Doha meeting of the World Trade Organization (WTO) was that the developing world would get a trade round for free.

This meant it would not have to make concessions in order to secure benefits.

But four years on in Hong Kong, according to Oxfam's head of research Duncan Green, "the developed world has won a round for free".

"There is very little in here for developing countries," he says.

Behind the rhetoric of this so-called WTO 'development round' lies the hard-headed reality that trade terms really matter to the relative strength of a country's economy.

Strong positions are not easily given away to help development.

That's why the poorest countries have found it hard to make headway in these talks: they have little to offer in return for their demand that the richest countries 'level the playing field' in food prices by cutting subsidies.

Their claim that the cuts would remedy inequalities of the past does not carry any weight at the negotiating table.

The key concrete concession they won in Hong Kong, which dominated the conference, was an agreement that rich countries should end export subsidies to farmers by 2013.

But most of these subsidies were being phased out anyway.

According to analysis by the aid agency Cafod, the share of export subsidies fell from 50% of EU agricultural spending in 1980 to 5% in 2004, and were set to drop still further.

The US had already promised to abolish export subsidies before coming to Hong Kong.

Cotton is treated differently from other agricultural products, and the US has now agreed to cut export subsidies here too - although this was no more than has already been demanded of it by a WTO ruling.

A separate requirement to reduce US domestic support for cotton farmers in the final Hong Kong text is not mandatory.

US cotton farmers receive funding worth more than the entire GDP of any of the four west African countries who are campaigning on this - Benin, Burkina Faso, Chad and Mali.

In return for modest gains in agriculture, the poorest countries have made modest concessions in the other two pillars of the WTO process, services and non-agricultural manufactured goods.

But there was significant disappointment among interests in the richest countries that these did not go further towards a more comprehensive free trade treaty.

Most countries united against Japan, the European Union and the US on farm subsidies, in an alliance of four-fifths of the population of the world.

This unity did not extend to services and non-farm manufactured goods.

Larger developing countries like Brazil and India want more liberalisation in these sectors and liked the progress made.

Poorer countries still want to be protect their economies while they grow, and are concerned that they may have given away too much.

None broke ranks to walk out, but Venezuela and Cuba reserved their right to oppose the document, which should give them more leverage in re-opening discussions on these issues.

Still, the success of Pascal Lamy - the WTO director-general - was in producing any consensus at all after the collapse of the process at the Cancun WTO meeting two years ago, and the very low expectations of progress in the months leading up to Hong Kong.

The biggest disappointment of the poorest, so-called "least developed countries", was the development package tacked onto the rest of the deal.

The key new element gives them the right to sell their goods into developed countries without paying tariffs or being limited by quotas.

But it is too full of exemptions to make a real difference. America is expected to continue to put obstacles in the way of textile imports, while Japan has proposed to exempt rice, fish, sugar and maize.

The offer should, however, allow the poorest countries to sell goods with added value at the tariff-free rate, enabling them to develop food-processing industries. At the moment they have to pay high tariffs to sell processed food.

Some of the least-developed countries were happy that the process was now back on track.

Uganda's Trade Minister, Gaudi Megeleko, said that there was now "something to build on" before another full ministerial meeting early next year to put flesh on the bones of the agreement.

Developing countries know that they have nowhere else to turn.

Double X-rays give 'speedy scan'

A hi-tech scanner has been developed which takes images in less time than it takes the human heart to beat.

The Somatom Definition machine contains two X-ray scanners so full body images can be taken twice as fast.

Manufacturer Siemens said the scanner, which will be available in the UK next autumn, is ideal for diagnosing heart problems because of its speed.

Scanning experts said such technology might reduce the need for more invasive diagnostic techniques.

CT (computed tomography) scans use special x-ray equipment to obtain image data from different angles around the body.

A computer then processes the information to show a cross-section of body tissues and organs.

Traditional scanners contain one X-ray tube, with one detector directly opposite.

The scanner spirals around the patient's body, moving down from head to toe to give a complete picture.

The machines can currently complete around three rotations a second.

Scientists want to speed up the pace of the rotations, so the check is completed more quickly.

This would mean the patient could be tested faster, and potentially enable hospitals to scan more patients in the time available.

But Gunter Dombrowe, head of Siemens Medical Solutions in the UK, said it has been physically impossible to develop a conventional CT scanner which works any faster.

To get around that problem, the Somatom Definition machine uses two X-ray tubes and two detectors.

One X-ray starts at 0° and continues round the body to 90°, while the second starts at 90° and finishes at 180° - and can therefore complete the scan twice as fast.

Mr Dombrowe said that was particularly important when carrying out heart checks.

Taking CT scans of the heart currently requires the patient to take beta-blockers to slow the heart to allow its workings to be seen clearly.

Mr Dombrowe added: "This machine gives you a 'freeze frame' of the heart.

"And it allows you to get images fast and reliably.

"It's ideal for emergency departments because it allows you to complete a full body scan and to see the entire vascular system, aiding diagnosis."

4

Fatal Cyprus jet flight recreated

Greek investigators have taken part in a re-enactment aimed at determining what caused a Cypriot airliner to crash near Athens in August

All 121 people on board died when the Helios Airways Boeing 737-300 lost cabin pressure and hit a hillside.

Greek investigation chief Akrivos Tsolakis said the re-enactment was unprecedented for Greece.

A Greek F-16 fighter jet also flew alongside the plane on Monday, as happened on the fatal day.

"We hope certain basic questions will be answered," said one of the investigators, Serapheim Kamoutsis.

Monday's reconstruction flight left Larnaca airport at 1107 - two hours after the original flight on 14 August - due to the position of the sun, the AFP news agency reported.

An Olympic Airways Boeing 737-300 was used, taking the same flight path as the Helios jet.

As a mark of respect, the re-enactment was given the symbolic flight number 121, in memory of the crash victims.

Coroners said those on board the Helios jet were alive - though possibly unconscious - when it crashed.

A pressure valve left in manual mode is thought to have contributed to the crash by failing to adjust the in-flight cabin pressure.

All but 11 of the victims were Cypriot.

The crash orphaned 47 Cypriots, 26 of them children.

A flight attendant is believed to have tried to take control of the airliner during its final moments.

The pilots of two Greek F-16s who shadowed the airliner just before the crash said they saw the co-pilot slumped over the controls and the captain was missing from the cockpit.

Flight 522 had been heading for Athens en route to Prague when it lost contact with air traffic controllers, sparking a security alert before it crashed.

5 Europe's fish quota battle begins

Cod stocks remain well below minimum recommended levels and the advice is zero catch

The European Commission is proposing cuts in quotas for cod, a small increase for herring and major curbs on deep-sea fishing.

Scientific advice issued in October recommended the suspension of all cod fishing in some areas.

But lobbying by the industry means it is likely to continue, despite the parlous state of some populations.

Under Britain's EU presidency, the discussions in Brussels will be chaired by UK Environment Secretary Margaret Beckett and Marine Affairs Minister Ben Bradshaw.

Ministers will debate recommendations made by the European Commission on the basis of scientific advice from the International Council for the Exploration of the Sea (Ices).

The latest Ices advice, released in October, was that "cod stocks in the North Sea, Irish Sea and west of Scotland remain well below minimum recommended levels and the advice for these stocks... is zero catch".

Ices made a similar recommendation for hake fleets off the coast of Spain and Portugal.

However, the commission has chosen to depart from the scientific advice, and recommend a 15% reduction in cod catch and in the number of days which boats can spend at sea.

More than half of the cod killed are caught accidentally in nets designed for other fish, so the commission is also recommending a 15% reduction in trawling for whiting and flatfish, and in gillnet fishing.

This has not been received well by fisheries leaders and politicians with fleets to protect, with Scottish Fisheries Minister Ross Finnie saying he is "resolutely opposed" to any reduction in days at sea.

However, there have been some constructive proposals from the industry, including a two-month closure of the Celtic Sea fishery to allow cod a reasonable period in which to reproduce.

Of even greater concern to Ices scientists is the condition of deep-sea species, including some sharks.

Many deep-sea fish grow very slowly and take years, even decades, to reach reproductive age.

The commission is asking for a 20% reduction in take from these deep ecosystems, though many conservation bodies believe nothing less than a global moratorium is needed.

There will also be stringent curbs on fishing for sand eel, anchovy and pout.

Better short-term news for fishermen is that numbers of herring and northern hake are recovering, and an increase in quotas is likely.

A separate ambition of the negotiations is to develop longer-term agreements in order to diminish the role of the annual ructions between conservation and industry.

There will also be discussion of monitoring and enforcement, given extra urgency by recent indications that regulations are routinely flouted.

In July, the European Court of Justice fined France 20m euros (£14m) for failing to enforce EU rules on mesh sizes and catching undersized fish.

Earlier this month, almost the entire fleet in the Yorkshire port of Whitby was fined for failing to declare all of its catch

The difficult game of war reporting

A TV news correspondent who claimed he was sacked for refusing to go to Iraq has won his unfair dismissal case. The tribunal highlighted the dilemma which journalists and their bosses face.

War correspondents have always been a breed apart, rushing in where most of us fear to tread.

We remember John Simpson marching into Kabul and Max Hastings yomping into Port Stanley, "liberating" Afghanistan and the Falkland Islands and scooping their rivals into the bargain.

But the life of the war correspondent has never been more dangerous, according to the former BBC correspondent Martin Bell. "It is time to close the book on macho journalism", he said this week.

"The turning point was 9/11. Before that time, the main danger a journalist would face was to be caught in the crossfire of someone else's war. After that time, Western journalists were singled out for abduction, execution and torture."

Bell was giving evidence in support of Richard Gizbert, a London-based correspondent for the American ABC News network, who claims he was sacked for refusing to cover the war in Iraq. ABC - part of the Walt Disney empire - hotly denied the claim, saying Gizbert was simply a victim - along with others - of budget cuts.

An industrial tribunal has now accepted his claim but the amount of damages he receives will be decided in the New Year.

The case has highlighted not just the new dangers faced by war correspondents but the difficult relationship such situations can lead to with their employers.

In 1991, the BBC ordered John Simpson to leave Baghdad before the Gulf War bombing began. He refused, and a compromise was found, whereby he and two BBC colleagues were assured they would not be punished if they disregarded orders. In this case, it was claimed, the opposite happened.

Gizbert - a veteran of conflicts in Somalia, Rwanda and Chechnya - told the tribunal that ABC News had not renewed his contract after he twice refused to cover the Middle East conflict. He said they'd told him they needed reporters who "would kick down doors".

In a move with implications for all news organisations, his legal team argued that health and safety protection in UK employment law should apply to journalists assigned to war zones.

ABC News said Gizbert had switched to a freelance contract in 2002 so his work preferences could be accommodated but that such freelancers "became a luxury they could no longer afford".

Publicly, all sides accept that war reporting must be voluntary. ABC stated: "The safety of our correspondents is our first priority. All of our correspondents understand that assignments to war zones are completely voluntary."

Martin Bell told the tribunal: "Most networks mean it when they say that war zone assignments are entirely voluntary. The BBC certainly does."

He cited a cameraman and reporter who'd decided to retire from the front after starting families and who had both been promoted, not penalised.

Another BBC correspondent, Jeremy Bowen, made the same point in his documentary "On The Front Line" earlier this year: "What we must never forget is that we are there because we want to be. We can always get out and go home - even if we don't always want to."

But Bell said eventually all war correspondents must call it a day: "It occurred to me that courage in anyone was a finite resource, like petrol in a car. The moment when I found my own tank running low was during a Serbian artillery attack in Sarajevo in May 1992."

Maggie O'Kane, the former Guardian war correspondent, agrees up to a point: "I would not be so prosaic as to call it courage - more ambition, nerve, recklessness and, sometimes, even passion. But whatever it is, it runs out for most of us."

She wrote in the Guardian that she "basically lost her nerve in Afghanistan in 2002 after three colleagues were taken out of their car and executed by the Taliban in roughly the same amount of time as it takes to boil a kettle".

7

Scots yard lands wind farm work

Workers at Scotland's last heavy fabrication yard have clinched a big offshore wind farm deal.

Burntisland Fabrications in Fife has been awarded the contract to build two giant wind turbines for use in the Moray Firth.

The multi-million pound deal, creating 60 jobs, is for the Beatrice Wind Farm Demonstrator Project.

The structures will test the feasibility of a 200-turbine wind farm next to the Beatrice oilfield.

Located about 12 miles off the coast, it will also be the deepest and when fully operational will provide an estimated 300 jobs or more.

The five-megawatt turbines, two of the largest in the world, have been commissioned by oil firm Talisman Energy and Scottish and Southern Energy (SSE).

They would be capable of generating enough renewable energy to power the city of Aberdeen.

The Scottish Executive has set an ambitious target of 40% of Scotland's electricity to be generated by renewable energy by 2020.

A spokesman said: "The project will pioneer deep water wind farm development distant from shore and should help add to Scotland's growing renewable energy generation potential."

Mark Ruskell, Green MSP for Mid Scotland & Fife, said: "There is the potential now to establish a world class industry cluster for offshore renewables in Fife.

"The executive must now create the right climate to move beyond offshore pilot schemes and ensure that large scale wind and wave projects are built in Scottish waters to plug the energy gap."

The £3m Scottish Executive and £3m DTi backing was announced last year by the First Minister Jack McConnell, who said the plan could have the potential to take offshore wind farm technology to a new level.

During the five-year period of the pilot project, Talisman and SSE will collect performance data, look for ways to reduce costs and develop operating procedures.

Extinct mammoth DNA decoded

Scientists have pieced together part of the genetic recipe of the extinct woolly mammoth.

The 5,000 DNA letters spell out a large chunk of the genetic code of its mitochondria, the structures in the cell that generate energy.

The research, published in the online edition of Nature, gives an insight into the elephant family tree.

It shows that the mammoth was most closely related to the Asian rather than the African elephant.

The three groups split from a common ancestor about six million years ago, with Asian elephants and mammoths diverging about half a million years later.

"We have finally resolved the phylogeny of the mammoth which has been controversial for the last 10 years," lead author Michael Hofreiter of the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany, told the BBC News website.

Mammoths lived in Africa, Europe, Asia and North America between about 1.6 million years ago and 10,000 years ago during the Pleistocene epoch.

The woolly mammoth, *Mammuthus primigenius*, with its covering of shaggy hair, was adapted to the extremes of the ice ages.

The DNA of several extinct ice age mammals, preserved in permafrost, has been analysed before, but not in such detail.

"It is the longest stretch of DNA [decoded to date] from any Pleistocene species," said Professor Hofreiter.

The team of researchers - from Germany, the UK, and the US - extracted and analysed mammoth DNA using a new technique that works on even the tiny quantities of fossilised bone - in this case 200 milligrams.

1	С	21	е	41	d	61	b
2	d	22	е	42	е	62	d
3	?	23	b	43	С	63	е
4	С	24	d	44	С	64	а
5	а	25	d	45	а	65	С
6	d	26	е	46	d	66	d
7	е	27	е	47	а	67	е
8	С	28	b	48	b	68	b
9	b	29	С	49	d	69	b
10	d	30	d	50	b	70	d
11	С	31	а	51	е	71	d
12	а	32	С	52	d	72	b
13	е	33	С	53	b	73	а
14	d	34	а	54	b	74	е
15	b	35	С	55	С	75	а
16	d	36	е	56	е	76	b
17	d	37	С	57	d	77	а
18	b	38	d	58	Ь	78	b
19	е	39	d	59	b	79	b
20	b	40	е	60	а	80	d
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