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伊拉克常驻联合国代表给秘书长的信

奉我国政府的指示，谨随函附上1991年11月12日伊拉克共和国外交部长艾哈迈德·侯赛因先生的信。此封信是关于英国《星期日独立》周刊就1991年4月联合王国原子能机构编制的一分报告发表的文章，该报告叙述联军在海湾战争期间使用贫铀制造的反坦克炮弹，这种材料含有预示造成大规模人类和环境灾害的化学毒素和放射性物质。

请将本函及其附件作为安全理事会的文件散发为荷。

常驻代表
大使
阿卜杜勒-阿米尔·安巴里(签名)

附 件

1991年11月12日伊拉克外交部长给秘书长的信

谨随函附上英国《星期日独立》周刊在其1991年11月10日星期日一期所发表的文章的副本，其中揭露了1991年4月联合王国原子能机构(原子能机构)编制的一分报告内的重要资料，其中叙述联军在海湾战争期间使用了贫铀制作的反坦克炮弹，该材料含有预示造成大规模人类和环境灾害的化学毒素和放射性物质。

根据原子能机构的报告，该周刊指出美国和英国的飞机和坦克向伊拉克车辆发射贫铀(U-238)制造的数以万发的穿甲弹，而这些炮弹散发的和弹片仍在散发的化学毒素和放射性废物对数以千计人民的生命造成长期的危害。

报纸提到该份报告说，美国坦克向伊拉克车辆发射了5000发贫化铀弹头，美国飞机也发射了数以万计。仅止坦克的弹药就含有5万多磅贫铀，其放射性材料按照国际辐射防护委员会风险估计足以致死50万人。报纸没有谈及美国飞机猛空袭伊拉克城镇乡村42天所发射的数以万计的这种弹头产生的辐射所危害到的人命的大概数目，但肯定是比上述数字多一倍。

此一重要的透露是每天被揭发的美国罪行的新增名目--最近但不是最后一次新名目是活埋数以千计的伊拉克士兵；这再次证实了美国违反国际法、《联合国宪章》、各项海牙和日内瓦公约、《纽伦堡法庭组织法》和武装冲突法律。命运的嘲弄是，美国居然利用国际法、《联合国宪章》和安全理事会各项决议作为借口，侵害伊拉克人民以及本区域各国人民与环境。

我们要求你派遣一队联合国专家研究这个人间和环境灾难的程度和查明补救的办法。通过你，我们又呼吁所有国家、政治组织、人道主义组织、环境组织和国际舆论强烈谴责此一罪行，并呼吁立即撤销这次专横地强加予伊拉克人民的经济封锁，让我国人民可以利用其资源抑制美国侵犯他们所产生的直接的和长期的影响。

伊拉克共和国外交部长
艾哈迈德·侯赛因(签名)

Annex

10 NOVEMBER 1991 THE INDEPENDENT ON SUNDAY

No action taken after secret report warning of health threat to Kuwaitis and clean-up teams from West

Radioactive waste left in Gulf by allies

By Nick Cohen

THE ALLIED armies left at least 40 tons of depleted uranium on the Gulf war battlefield, a secret report by the United Kingdom Atomic Energy Authority has warned. The chemically toxic and radioactive waste threatens the long-term health of thousands of Kuwaitis, as well as Western clean-up teams. It could also pass into the food chain and water supply.

The uranium was in tens of thousands of armour-piercing rounds fired at Iraqi vehicles from American aircraft and British and US tanks during the conflict.

An AEA appraisal of the threat, which has been seen by *The Independent on Sunday*, calculates that there is easily enough uranium in Kuwait and southern Iraq to cause "500,000 potential deaths".

The authority says that this is a purely theoretical calculation, which is "obviously not realistic". However, it adds that the sheer volume of depleted uranium does "indicate a significant problem".

The report was prepared in April by decommissioning and decontamination specialists working for AEA Technology, the commercial arm of the atomic authority, at the Winfrith Establishment, Dorset. The authority offered then to send "a small and dedicated team" to the Gulf "in total confidentiality". It wanted to identify the size of the problem and devise a clean-up plan. The worst concentrations of depleted uranium could then be removed and potential health hazards minimised. But, after six months, no action has been taken by the British government or by Royal Ordnance, the privatised Ministry of Defence munitions supplier responsible for clearing the British sector of the Gulf war battlefield.

"Discussions are continuing with various parties," a senior AEA official said last week. "They have not gone as quickly as we would have hoped." The authority has so far failed to get the go-ahead despite warning that expert assistance was needed because depleted uranium "requires sensitive equipment and well-trained operators as it is difficult to locate".

An appeal to political self-interest has also failed. The report said: "A further concern is a political one of leaving significant quantities of uranium around Kuwait. The problem will not go away and should be tackled before it becomes a political problem created by the environmental lobby. It is in both the Kuwait and the UK interest that this is not left to rear its head in years to come."

The report was sent to Royal Ordnance and unspecified British government departments. The Ministry of Defence and Foreign Office denied any knowledge of its contents. A spokesman for Royal Ordnance, which has about 250 sappers clearing mines in the desert, was unable at the time the company was contacted to say whether the company had received the report, as was a spokesman for the Kuwaiti Ministry of Defence.

The AEA would not say whether the Kuwaitis had been told. At the time the report was produced no decision had been made on whether to inform the Kuwaitis, who have passed responsibility for clearing the battlefield to contractors from the allied powers. The issue of whether the Kuwaiti government needed to know was described earlier this year as "delicate".

Delays in acting on the report are understood to be the result of problems in co-ordinating the response between the various clean-up teams in the different allied sectors and the fact that much of the waste lies in Iraqi territory.

The Atomic Energy Authority believes some of the waste could still be properly and safely cleared if a decision can be made soon.

The AEA said in April the best estimates were that US tanks fired 5,000 depleted uranium rounds, US aircraft many tens of thousands of rounds, and British tanks "a small number". The tank ammunition alone would contain more than 50,000lb of depleted uranium — enough radioactive material, on International Committee of Radiological Protection risk estimates, to cause "500,000 potential deaths" if it were inhaled, the report says.

This figure bears no relation to real hazards because for half a million to die, the uranium shells would have to be pulverised into dust and 500,000 people would have to line up in the desert and inhale equal quantities.

The AEA says that the real danger comes from uranium dust produced when depleted uranium shells have hit and burned out Iraqi armoured vehicles. If airborne particles are inhaled they can lead to "unacceptable body burdens".

The depleted uranium will be "spread around the battlefield and target vehicles in varying sizes from dust particles to full-size penetrators", the report says. "It would be unwise for people to stay close to large quantities of DU for long periods and this would obviously be of concern to the local population if they collect this heavy metal and keep it.

"There will be specific areas in which many rounds will have been fired where localised contamination of vehicles and the soil may exceed permissible limits and these could be hazardous to both clean-up teams and the local population. Furthermore if DU gets in the food chain or water this will create potential health problems."

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Hazards of war: extracts from the confidential report by the UK Atomic Energy Authority

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Gulf teams not told of risk from uranium

SOLDIERS, mine-clearing experts and reconstruction workers in Kuwait have not received the Atomic Energy Authority report on the health risks posed by depleted uranium ammunition left lying on the Gulf war battlefield by British and American forces.

The amount of uranium used in the Gulf war theatre made it very likely that there would be contaminated areas with large amounts of uranium dust, the authority said in April. Given the conditions in Kuwait, internationally-recognised uranium dosage limits "could easily be exceeded if special arrangements are not made," it predicted.

By Nick Cohen and Tom Wilkie

Gulf in June said they had never received any instructions from the Royal Ordnance project managers on what to do if they encountered depleted uranium.

Even if safety guidelines have been issued subsequently, the Atomic Energy Authority report points out that untrained workers in a contaminated area may not recognise depleted uranium when they meet it.

The authority's six-month-old proposal, still to be accepted, warned that qualified operators poisonous, like all heavy metals, and its effect was similar to that of lead, he said.

If there is uranium dust around, it is easily kicked up into the air and then people can breathe it into their lungs. The maximum permissible body burden depends on the chemical form of the uranium: some compounds of uranium are cleared from the body within a matter of days; others may reside within the body for years. For the long-residing compounds, the maximum permissible body burden is 600 becquerels — 16 billionths of a Curie — equivalent to 16 billionths of a gram of radium. The

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No action has been taken on the report and last week the Ministry of Defence, which had a squadron of Royal Engineers working on battlefield mine clearance and the removal of military equipment in Kuwait for four months this summer with Royal Ordnance, said it was "not aware" of the calls for experts to be brought in to identify and minimise health and environmental risks.

Royal Ordnance, the privatised munitions company which is under contract to the Kuwait government to clear mines and cluster-bombs from the beaches and deserts south of Kuwait City, said that it did know that there were potential dangers. The staff it had hired were under instructions to take proper precautions and wear gloves and protective clothing when they came across depleted uranium.

But former Royal Ordnance employees who returned from the and sensitive equipment were needed as the uranium would be "difficult to locate".

The largest Western contractor in the Gulf – Bechtel, a US engineering and management consultancy company, which has 1,000 employees and 9,000 subcontractors on reconstruction work in Kuwait – was unable to say if it had received any warnings about depleted uranium.

Many – perhaps most – of the uranium rounds in the desert will be in large fragments and not particularly menacing. Risks arise where they have been broken up after smashing into Iraqi armour.

Dr Roger Berry, director of health and safety at British Nuclear Fuels, said that it was the chemical toxicity of uranium rather than its mild radioactivity which posed a threat.

"The big problem is dust," Dr Berry said, "and the main route [into the body] is inhalation." Uranium is a heavy metal and is more permissive limits would allow the equivalent of 160 billionths of a gram of radium.

The body has natural mechanisms for purging such heavy metals, transferring the uranium to the kidneys and then excreting it through the urine. But too much uranium taken up at once will cause kidney failure.

Dr Berry emphasised that he had no direct knowledge of the amounts or type of uranium that might be present as a result of the use of tank-busting shells in the Gulf war, but said the main worry would be dust produced after the shells impacted.

"If it's all retained inside the tanks then there would be no environmental pollution problem." But, Dr Berry said, depending on the chemical composition of the uranium inside the tanks, he would expect that personnel dismantling them would have to be protected by respirators, or at least commercial dust masks.

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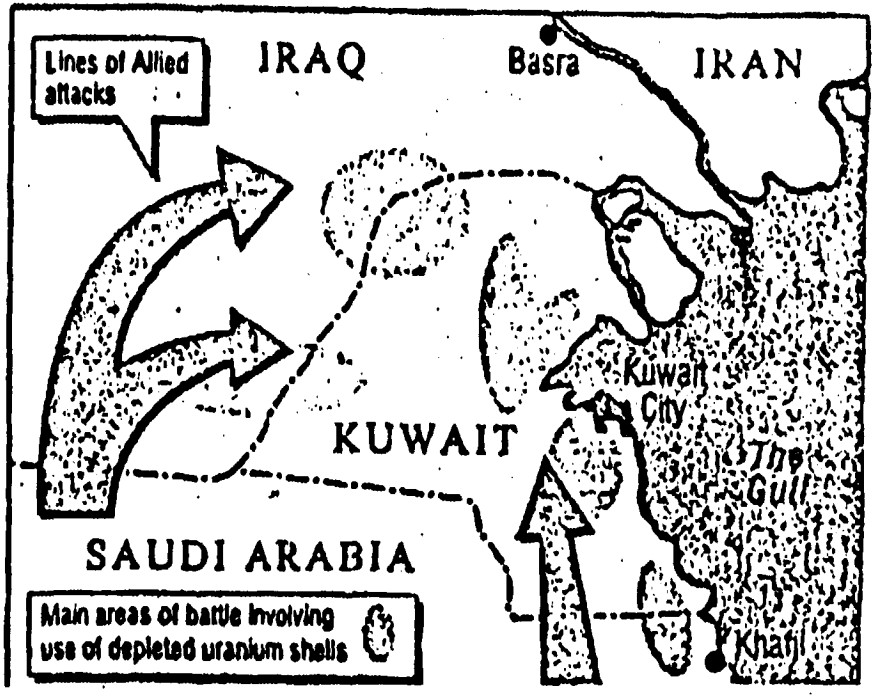
'Arrow' that can stop a tank

By Christopher Bellamy
Defence Correspondent

AN ENGLISH archer at Agincourt would have had no problem understanding the principles behind a depleted uranium anti-tank round. To penetrate armour, you want a small, hard, dense, sharp head, driven by the power of a much larger device – a longbow, or a tank gun.

Depleted uranium – U-238 – is extremely hard and dense, even more so than the tungsten alloy which is also used for solid armour-piercing shot. Because of this property, it is also used for protection, in the armour of the US M1A1 tank.



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The core of a DU round is the penetrator — an armour-piercing arrow, much like those shot at Agincourt in 1415. It even has fins or flights at the back to stabilise it.

The penetrator is wrapped in a "sabot" (from the French for clog) which fills the bore of the gun and imparts enormous energy. But after it leaves the barrel, the sabot is kicked off and the thin, hard core carries on. Even if the gun is rifled, the spiralling grooves will only impart spin to the sabot. So the fins are still needed to keep the penetrator stabilised after it has left its cradle. The full name is Armour-Piercing, Fin Stabilised, Discarding Sabot (APFSDS). The smaller DU rounds fired from the A-10 aircraft do not have fins, and are therefore APDS.

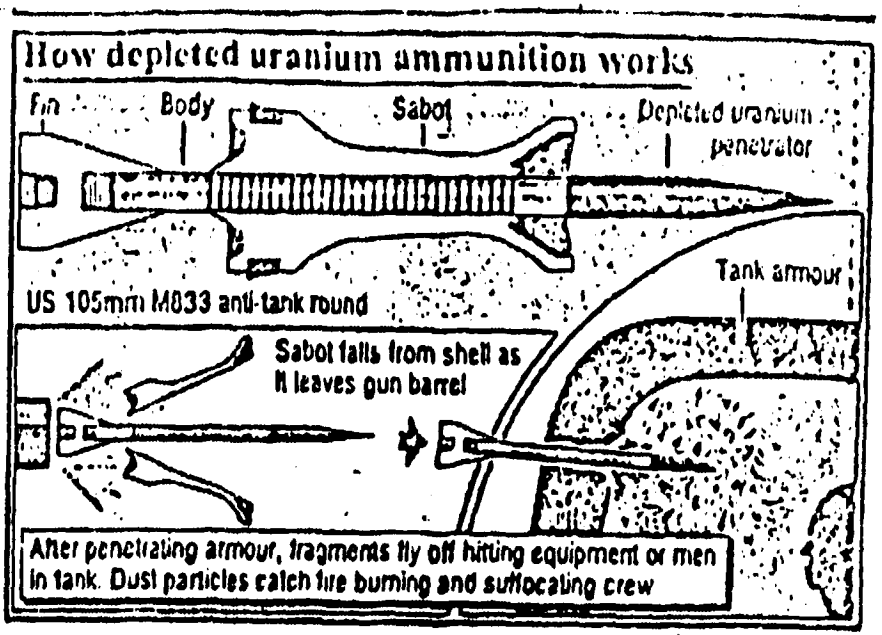
When it hits the target, the penetrator punches a hole right through the armour. There were cases in which DU rounds were fired at tanks dug in behind sand berms, and went right through both the berm and the tank. What exactly happens depends on where the round strikes. It may crash into the engine compartment, or fly through the turret, knocking out the gun elevating gear, for example, or it may fragment, killing the crew.

However, DU rounds do behave differently from tungsten. Depleted uranium dust catches fire in air, an effect called "pyrophoretic". As the round bores through the armour and heats up, it gives off dust which, when it catches alight in the crew compartment, can severely burn or kill the occupants. Vehicles hit by DU rounds will be contaminated with DU dust. Incidentally, this helped the Americans confirm that US Marine vehicles destroyed on the southern Kuwaiti border had been hit by "friendly fire", as the Iraqis had no DU ammunition. Rounds which fail to find their mark will just bury themselves in the sand, intact.

US A-10 aircraft never fire DU rounds from their 30mm rapid-firing cannon in peacetime, but it is the standard war ammunition. Many of the 750 rounds on board each A-10 would have been DU. And these would not only have been used during the ground war, from 24 to 28 February, but also throughout the air war against Iraq, which began on 17 January.

British and US tanks also used DU. The British fired fewer than 100 DU rounds; they preferred the High Explosive Squash Head (HESH) round which is of more general use. Exploding against the outside of a tank, HESH blasts a scab off the inside armour of the vehicle, with horrific results for the crew.

But the Americans undoubtedly fired many DU tank rounds. The US Marines fired DU rounds from the 105mm guns of their M-60 tanks and the US Army fired it from the 120mm guns of their M1A1s. A Pentagon spokesman said last week that it was impossible to say how much ammunition had been fired during the 100-hour ground battle, let alone what type. "You're not going to get an accurate count. There really wouldn't be any reason. There's quite enough to do without trying to count the number of bullets fired."



Graphic: Michael Rosser