America's nuclear deal with India

Blast from the past

America won't, but others should hold the anti-nuclear line

AFTER a final joint polish from House and Senate, the controversial deal that for the first time in 30 years would open up civilian nuclear co-operation between the United States and a nuclear-armed India is expected soon to be signed into American law. This is no triumph of Republican-Democrat bipartisanship. The damage to the global anti-nuclear regime—founded on the bargain written into the Nuclear Non-Proliferation Treaty (NPT) that only those who renounce nuclear weapons should benefit from civilian nuclear trade and assistance—will be lasting and will spread. America now wants the informal Nuclear Suppliers Group (NSG) and the board of the International Atomic Energy Agency (IAEA), the UN's nuclear guardian, to change their rules to accommodate India's bomb-making as well. Doing so will make it that much harder to contain the proliferating fallout from North Korea's bomb test and Iran's continuing nuclear defiance.

George Bush calculates that the future benefits of pleasing India, a hoped-for ally in balancing the rise of China, will outweigh the blow to the NPT. India (like Pakistan and Israel) never signed the treaty, so unlike North Korea and a suspect Iran, it is argued, broke no rules with its weapons-making. Yet tossing aside 30 years of efforts to persuade others not to trade in nuclear materials and technology, unless countries accept full international safeguards on all their nuclear facilities (India doesn't now and won't in future), breaks America's faith with the treaty in two ways. India is being offered all the benefits of NPT membership without any of its obligations, thereby reducing the incentive for others to stick to their promises. Easing the squeeze on its uranium imports—India was running short of the enriched stuff for its civilian and military needs—will also indirectly help its weapons programme, something the NPT says quite clearly America should not do.

Congress chose not to salvage some good from a bad deal, by amending it to require that India cap its production of uranium and plutonium for weapons (as America, Russia, Britain, France and, it is thought, China have done). Lobbying from industry groups hoping for nuclear and other contracts won out.

With Congress backing the deal (a technical agreement must still follow), some NSG members are keen to join the scrum for nuclear contracts. Russia jumped in earlier this year by supplying nuclear fuel to India, claiming "safety" as a reason for providing uranium to an Indian reactor that could simply have been shut down. Others in the suppliers' group, though unhappy with an Indian exception, are reluctant to offend either America or India. Unless they find the courage of their anti-nuclear convictions, their choice will be to knock an India-sized hole in the guidelines for nuclear trade or, as China may insist, rewrite them so that others, such as proliferation-skilled Pakistan, could one day qualify too.

Will history repeat itself as folly?

India is first supposed to conclude a safeguards agreement with the IAEA. The Bush administration sold the deal to Congress by promising that India would separate out its civilian reactors and put them under full safeguards in perpetuity. India's civilian nuclear industry, however, is closely tied in with its weapons-making. That is why none of its own uranium-enrichment and plutonium-reprocessing plants, or its planned fast-breeder reactors (previously claimed to be civilian, but ideally suited for making plutonium for bombs) are on its inspection list. It wants the agency's 35-nation board to agree that inspectors can snoop around its "civilian" reactors only when foreign fuel is in use.

The irony is that the suppliers' group was set up in the first place, and nuclear safeguards extended, after India's first supposedly "peaceful" nuclear test explosion in 1974. Though the Indians claim (inaccurately) an unblemished record in recent years in preventing the leakage of weapons secrets, their first bomb—for that is what it was—was knocked together using technologies and materials provided for civilian use. Since then India has exploded five more, built around 50 and plans a stockpile of several hundred. Bending the anti-nuclear rules for India, whose weapons effort first inspired them, can only encourage others to consider a nuclear option too. ■

published a leaked memo written by Stephen Hadley, Mr Bush's national security adviser, saying of Mr Maliki that he "wanted to be strong but was having difficulty figuring out how to do so". The memo emphasised Mr Maliki's need to put some distance between himself and Mr Sadr. Mr Sadr is meanwhile putting pressure on Mr Maliki to distance himself from the Americans. After a triple car-bombing in the Mahdi Army's east Baghdad support base of Sadr City killed more than 200 people last week, Sadrist officials said that the Americans were primarily to blame for failing to provide security. They threatened to pull out of the government if Mr Maliki went through with his meeting with Mr Bush, though in the event, the Sadrists merely "suspended participation", a good step short of a full walk-out.

In Washington, debate is transfixed on the report expected next week from the Iraq Study Group, a bipartisan committee promising sagacious advice on how America can best extract itself from the quagmire (see page 31). One much-leaked idea is said to be for American talks with Iran and Syria about how they could help calm Iraq, perhaps in the context of a regional peace conference that would touch on Palestine too. But Iran and Syria do not feel they need America's invitation to become involved. Syria established formal ties with Baghdad last week after a break of 25 years. This week, Iraq's president visited Tehran (see next story) while Mr Maliki was packing for Amman. Iraq's neighbours have their own interest in limiting the chaos. That does not make them eager to help America. And nor did Mr Bush say anything in Amman to suggest that he is in the market for that "graceful exit". ■

Iran and America

What hope of a grand bargain?

Two countries, never in tune

FOR close to three decades America and Iran have had little to say to each other officially except by megaphone. Now George Bush's Democratic critics want him to talk to both Iran and Syria to help find a way out of Iraq. Iran's fiery president, Mahmoud Ahmadinejad, who was this week hosting his Iraqi counterpart, Jalal Talabani, in Tehran, certainly pretends to the role of regional power-broker: he says America should get out of Iraq.

But Iran is not only a player in Iraq's violent politics. It also arms Hizbullah in its face-off with Israel, and funnels cash to militant Palestinian factions, including Hamas. It supports Syria's meddling in Lebanon, and continues to defy UN Security Council demands that it suspend the most dangerous bits of its nuclear programme.

Iraq's president meets Iran's

What to do about Iran divides the Bush administration in part because the stakes are so high. Mr Ahmadinejad's virulent rhetoric, his desire to see Israel "wiped from the map" and his bid for wider Muslim leadership make an Iranian bomb a nightmare for America, Israel and a Europe soon to be in range of Iran's missiles. Some Iranian officials hint that they might consider helping in Iraq only if pressure on the nuclear programme is lifted.

Americans debate whether a "grand bargain" might bury the hatchet. The idea would be to end Iran's support for terrorism and clear up nuclear suspicions by restoring relations, improving political and trade ties and addressing Iran's security concerns. The trouble is, Iran's interests seldom chime with America's.

A bid by some in Iran's leadership to open a dialogue after America's invasion of Iraq in 2003 was rebuffed by the Bush administration, whose loudest voices were for "regime change". A missed opportunity? Iran's continued arming of anti-Israeli terrorists, and its refusal to hand over members of al-Qaeda, supposedly under "house arrest" in Iran but suspected of having planned further attacks, helped kill the proposed talks.

Iran's ruling factions are likewise divided over how, or whether, to deal with America. Mr Bush's predicament in Iraq has emboldened the hardliners. For now, Iran appears not to want serious talks.

In an effort to strengthen the hand of European diplomats trying to talk Iran out of its nuclear ambitions, Mr Bush last year agreed to a package of trade and other incentives, including some advanced nuclear technology. In May this year he said America would take part in negotiations, once Iran suspended its suspect nuclear activities. Each time he took a step towards Iran, it stepped up its nuclear work. An offer from America's ambassador in Baghdad to discuss ways of quelling the violence in Iraq was likewise spurned.

With his coffers full of oil money, and Europeans dependent on his oil, Mr Ahmadinejad is confident he can ride out any sanctions. He boasts that with America tied down in Iraq, it is in no position either to try a military strike against Iran's nuclear facilities or assist an Israeli one.

That could prove a miscalculation. America has been gambling on a diplomatic solution to the nuclear issue, with some in the administration hoping other talks might follow. But Mr Bush insists that, despite Iraq, all options are open.

Oil, meanwhile, is off its peak and increasing Saudi capacity could soon cope with a threatened Iranian oil cut-off. The extent of Iran's military support for Hizbullah in its war with Israel earlier this year alarmed Arab neighbours. And at home, the economy needs the investment that Mr Ahmadinejad's threats scare away. Iran can miss opportunities too. ■

Israel, Palestine and America

Where Mr Bush chose not to go

JERUSALEM

Can the ceasefire survive?

THAT George Bush, who has never visited Israel or the Palestinians as president, chose not to pop over this week from Jordan, served as a useful signal to their leaders that they are in danger of becoming irrelevant to him.

Israel's misadventure against Hizbullah in Lebanon this summer ruined Ehud Olmert's credibility as prime minister and put paid to his plan to pull out of parts of the West Bank. Since then, Israel's assaults on Gaza, trying to release a captured soldier and stop rocket fire, have killed hundreds of Gazans, many of them fighters but many also bystanders and children. For his part, Mahmoud Abbas, the Palestinian president, has failed in months of attempts to broker a unity government for the Palestinian Authority (PA) between his ousted Fatah party and the ruling Hamas. With two years of his term to run, Mr Bush might well be inclined to give up on his "vision" of "two states living side by side in peace and security".

Lucky, then, that the two leaders agreed to a ceasefire between Israeli forces and the five main Palestinian militant factions, which took hold three days before Mr Bush's visit to Jordan. The truce, however, is as fragile as can be. It applies only to ▸▸

take longer to build than coal- or gas-fired units. In countries with state power firms, like China, the government can stump up the money or use its clout to reduce borrowing costs. A handful of firms, such as Electricité de France, are big and profitable enough to pay for new reactors out of regular income. Other solutions show more imagination: a Finnish consortium that is buying a new reactor consists of utilities and power users committed to buying the plant's output at cost.

The Finnish and British governments say they will not subsidise nuclear power. America's has no such qualms; in addition to the insurance against delays, it is helping to bear the cost of the permitting process and offering tax breaks on power produced by new plants. Such enthusiasm reflects the hope that nuclear power can wean America off imported fossil fuels. Elsewhere, countries that fear foreign control of their energy supply tend to be pro-nuclear. Ukraine, site of the Chernobyl catastrophe, is busily making more nuclear plants to cut its reliance on Russian gas.

In most of western Europe, feelings are more ambivalent. Many countries have cut nuclear output, or made plans to do so, and are only reluctantly reviewing that stance in the light of global warming. Indeed, some ecologists, such as Mike Townsley of Greenpeace, a lobby group, say talk of a renaissance is overdone. If there is a rebirth, it may lie in the mere fact that nuclear power is being discussed, not in any consensus about its merits. ■

Nuclear fuel

The more there is, the bigger the risk

Why proliferation gets harder to stop

IF THE nuclear industry is to flourish, as engineering firms, some governments and even a few greens now want, it must be secure from those who would misuse the uranium and plutonium technologies needed for civilian nuclear fuel and waste disposal to make bombs instead. Should it ever emerge that a rogue state, or terrorist group, has used illegally diverted material to make and let off a crude nuclear weapon, or even a less spectacular "dirty" radiological device, the power industry's hope of a nuclear future would be among the many victims.

Fear of fuel diversion is growing, along with fear of proliferation in general. North Korea did a rogue-bomb test last month; suspicion of Iran's nuclear plans is mounting; al-Qaeda is seeking nuclear material. Meanwhile the apostles of nuclear power ▸▸

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▸ confer at the International Atomic Energy Agency (IAEA, the UN's nuclear guardian) and elsewhere, to work out how to secure nuclear material and know-how.

Imagine the reaction, in this tense climate, if it was found that enough plutonium for several crude bombs had gone missing. Welcome to the so-called "back end" of nuclear-fuel management, where that much and more has collectively been "lost" at one time or another over the past decade at plants in Britain and France that separate plutonium from spent reactor fuel. (Japan has had similar discrepancies at a plant that blends plutonium with uranium to make mixed-oxide fuel.)

On closer examination, such losses usually reflect bad book-keeping. But inspection of furred-up pipes and recalculations to make the books balance can take months. The sheer volume of material being processed makes it impossible to be sure none has been pilfered: the IAEA says it takes only 8kg (17.6lb) of plutonium and 25kg of highly enriched uranium to make a bomb; others say less. And inspectors cannot always count on co-operation.

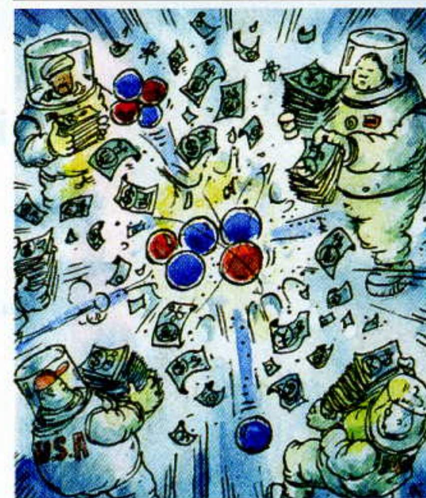
Like a pantomime horse, the nuclear industry has an ugly "front end" too. The cascades of centrifuge machines spun to enrich uranium gas to 5% or so, for use as fuel in civilian reactors, can—with tinkering—enrich to the 90% needed for bombs. And it is tough to stop small but militarily useful amounts of uranium being diverted for illicit purposes. Hence the fears over Iran, which claims to need an industrial-scale enrichment plant without having a single working power reactor.

Fears of rogue proliferators, and talk of a clampdown on uranium and plutonium technologies—claimed by some as a "right" under the Non-Proliferation Treaty—have caused mutterings from Argentina, Kazakhstan, South Africa and Australia that they may seek their own enrichment technology. But this makes no economic sense, says Henry Sokolski of the Non-Proliferation Policy Education Centre, a think-tank: without a lot of power reactors, it is cheaper to buy fuel than make it.

In a bid to capitalise on that, and expose those whose nuclear plans are less peaceful than they claim, some people advocate a fuel bank, managed by the IAEA, to ensure access to reactor fuel at reasonable prices in case of market disruption. Warren Buffett, a financier, has allowed the Nuclear Threat Initiative, an NGO, to pledge $50m of his money to help set up such a bank: he wants others to contribute in cash or kind (to the tune of another $100m at least). Those drawing fuel would have to agree to strict verification and to return spent fuel for oversight.

Britain, France, Germany, the Netherlands, Russia and America have jointly proposed a similar mechanism (Britain is keen on using "enrichment bonds"). Russia is setting up an enrichment centre, letting others share the product and the profits, but not the technology. Kazakhstan likes the idea but Iran has so far resisted.

America has also mooted a futuristic Global Nuclear Energy Partnership: those vowing not to build uranium or plutonium plants would be promised long-term fuel supply and waste handling. A small group of countries with advanced nuclear technologies would co-operate to develop new reactor designs and waste-handling methods, reducing proliferation risks. But critics call GNEP a costly gamble on unproven science that will harm the cause of nuclear energy and do little to combat proliferation. Even in a time of climate change, it's hard to be a nuclear booster. ■



Nuclear fusion

A white-hot elephant

A costly project brings countries together, but not many nuclei

GETTING power from nuclear fusion seems a great idea. The fuel is abundant, the process safe and the waste quite benign. Lots of power could be produced; the sun itself is powered by nuclear fusion. But getting more useful energy out of a machine than you put in has eluded the wit of man for 50 years—and a new move to throw more money at the problem marks political, not scientific, progress.

The project to build and run an International Thermonuclear Experimental Reactor (ITER) is 21 years old. It was proposed in 1985 by Mikhail Gorbachev, then the Soviet leader, who put the idea of working together on fusion to his American counterpart, Ronald Reagan. In its lofty origins the project resembles the International