

India will insist that safeguards should be applicable only to future activities and kick in along with international cooperation

N-deal: Now, focus on IAEA safeguards

C. RAJA MOHAN
NEW DELHI / DECEMBER 24

AS India and the United States put the implementation of their nuclear pact on a fast track, the government is expected to shortly begin consultations with the International Atomic Energy Agency on safeguards arrangements for its civilian nuclear facilities.

Foreign Secretary Shyam Saran and his US interlocutors last week in Washington appear to have concluded that an early closure to the deal would dramatically change the political setting for Bush's India visit in late February or early March.

Accelerating the nuclear pact's implementation necessarily involves a formal Indian un-

derstanding with the IAEA. The prospects for such an understanding have been good, thanks to the immediate support from the Director General of the IAEA, Mohammad El Baradei for the Indo-U.S. nuclear pact when it was unveiled last July.

El Baradei, who received the Nobel Peace Prize this year, strongly defended the US nuclear deal with India in a conclave of non-proliferation hawks in Washington last month. Under the nuclear pact signed by President George W. Bush and Prime Minister Manmohan Singh, the US will resume atomic energy cooperation with India, once India identifies its civilian military facilities and puts them under IAEA safeguards.

Saran had a useful exchange

of views in Washington on India's nuclear separation plan and the language of the nuclear legislation that the Bush Administration. These discussions, which reportedly went way beyond Indian expectations, would be continued at the next round in Delhi in January.

Further clarifications from both sides should help finalise the separation plan and the legislative language. That would allow the Bush Administration to approach both the US Congress, which reconvenes in the third week of January, and the Nuclear Suppliers Group to change the nuclear rules in favour of India.

It is learnt that Saran also discussed the nature of IAEA safeguards on India's civilian facilities. While the safeguards

agreements would have to be negotiated directly between Delhi and the IAEA, American support would be crucial.

India's nuclear separation plans are inextricably linked to the type of IAEA safeguards to be put in place. A unique safeguards arrangement with Delhi, that fully recognises the reality of a military nuclear programme in India, would make it easier for Delhi to put a larger number of facilities on its civilian list.

Analysts say, it would make sense for India to negotiate a separate agreement with the IAEA—referred to in the IAEA jargon as Information Circular 66—for every nuclear facility it chooses to put under international safeguards.

The existence of a weapons-

oriented component in the Indian nuclear programme automatically rules out the possibility of the comprehensive safeguards arrangement called INFCIRC 153.

Under the July 18 pact, India also agreed to negotiate "an additional protocol" with the IAEA. The system of additional protocols, modeled after INFCIRC 540, were developed by the IAEA in the 1990s to ensure stronger verification of the commitments of the non-nuclear weapon states.

By definition again, this dimension of the INFCIRC 540 has no relevance to India. The only provisions of the INFCIRC 540 that will be applicable to India are the declarations on nuclear exports, which India as a responsible nuclear weapon state would

be ready to undertake.

One criterion, officials have said over recent weeks, that will guide India's decision to place a particular facility under safeguards, would be the benefit of international cooperation.

India would, however, insist that the application of safeguards on its nuclear facilities would be "prospective" not "retrospective". In other words, IAEA safeguards should be applicable only to future activities. India would also like to ensure that safeguards would only kick in along with the initiation of international cooperation. This would require total clarity in the language of the proposed new US law on nuclear operation with India and the wording of the IAEA safeguards agreements.

INDO-US ■ He rejects proposal for moratorium on fissile material production

No change in civilian n-deal: Saran



Saran with US Secretary of State Condoleezza Rice in Washington on Wednesday.

SRIDHAR KRISHNASWAMI
WASHINGTON, DECEMBER 21

IN a rebuff to non-proliferation hawks in the US, Indian Foreign Secretary Shyam Saran today ruled out changes in the Indo-US civilian nuclear deal and rejected inclusion of proposal for a moratorium on fissile material production in it.

Addressing a distinguished audience at the Carnegie Endowment for International Peace, Saran shot down the notion that there could be some "improvements" in the now agreed upon cooperative framework, suggesting these are simply non-starters. "Let us be honest, these suggestions are deal breakers and are intended as such. The proposal for a moratorium on fissile material production was not part of this agreement and will not become so. However, in the conference of disarmament in Geneva, India has reiterated its commitment to negotiations for a multilateral and verifiable FMCT," he added. Saran countered

the suggestion that the deal constituted a "radical departure" from the NPT regime and said India's participation into the global nuclear regime was indispensable to not only further the cause of international non-proliferation but countering proliferation of weapons of mass destruction.

"Bringing India into the fold is not only a gain for international non-proliferation efforts but indispensable for the emergence of a new global consensus on non-proliferation in response to current challenges. Any objective assessment of efforts to counter WMD proliferation would surely put a high value on Indian participation," he said.

Seeking to address the issue of safeguards of India's nuclear programmes, the Foreign Secretary said "Obviously, this cannot be on the non-nuclear weapon state model. While concerns of our partners will be taken into account, it is best to avoid unilateral interpretations and positions." He cautioned against continuance of some curbs

on transfer of high technology from the US to India and said if it persisted, this could affect the "reform-minded and forward-thinking" constituency in India, which is forcefully advocating a closer relationship with the US. "It has been said that India has made no new commitments on July 18th and simply restated its current policies. Even assuming that this is true, it then begs the question whether the non-proliferation record of India should be diminished, even devalued, merely because it can be taken for granted," Saran said.

By strengthening its export control regime and committing to non-transfer of reprocessing and enrichment technologies and to international efforts to limit their spread, India has actually undertaken additional commitments that place it in an 'NPT plus' category," he added.

India's top foreign policy official also took on those who have argued that new Delhi had come away with

the accord giving nothing in return and that India would offer only a "token" separation of its civil facilities. "This displays a lack of comprehension of our objectives in entering into this understanding. India's energy security will be advanced by obtaining international cooperation on as wide a scale as feasible without accepting limitations on our strategic programme," he said. "Indo-us relations are at a crossroads. We have two clear choices before us. One is the road that we have travelled before — one that will maintain the status quo and the distance between our two democracies."

"The other, not without its challenges, recognises the enormous changes of the last decade, appreciates the resulting opportunities, and is prepared to depart from established positions to realise a genuine strategic partnership. Its realisation could make our ties one of the principal relationships of the international system," he added.

23 DEC 2005

INDIAN EXPRESS

95% of India's N-sites in US wish-list

ISIS Wants Nuclear Facilities Placed Under International Safeguards

By Chidanand Rajghatta/TNN

Washington: Egyptian folklore has it that the Goddess Isis possesses great skill in extracting secrets. She obtained the sun god Ras name by having him bitten by a venomous reptile made out of dust and spittle.

The Washington-based ISIS, acronym for the think-tank Institute for Science and International Security, is not known for such mystique or such methods. But as India's foreign secretary Shyam Saran meets his US counterpart Nicholas Burns on Wednesday for crucial talks on nuclear issues at a pivotal moment, the anodyne-sounding ISIS is taking a leaf of out of the Egyptian fable.

In an extraordinary intervention on Monday, ISIS, fronting for Washington's powerful non-proliferation lobby, furnished a list of nuclear sites and facilities that it says should be placed under international safeguards. The list covers nearly 95 per cent of India's nuclear facilities and is also aimed at sussing out secret facilities.

Besides demanding placement under safeguards of some two dozen current and planned nuclear power reactors, the ISIS safeguards wish-

list also includes six major fuel fabrication plants, four reprocessing plants, two breeder reactors, four enrichment facilities, nine research reactors, and nine heavy water production plants, all of which the think-tank deems as civil nuclear facilities.

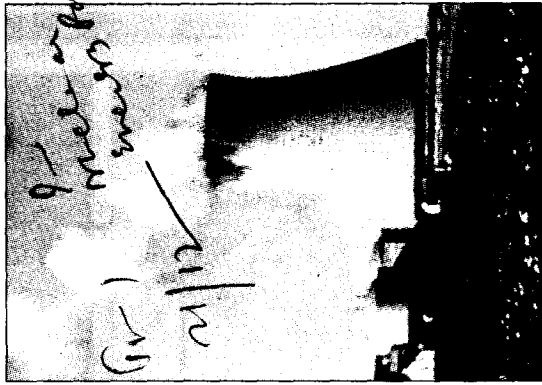
The only units recognised as being associated with India's fissile material production for nuclear weapons—and, therefore, possibly outside the ambit of safeguards—are five facilities in Trombay and the Rare Materials Project outside Mysore. These facilities produce and process plutonium and uranium for possible use in nuclear weapons.

Even in this limited list, the ISIS managers have a problem with a couple. The Cirus reactor, which was supplied by Canada and supported by US under a peaceful nuclear pledge by India, should be safeguarded, the Institute said, arguing that "if India declares this reactor as military, it would directly violate its commitment to Canada." The non-pro lobby is also pushing to wrap-up India's super-secret Rare Materials Project (RMP) in Mysore to the safeguards lists, suspecting it of producing a limited amount of highly enriched uranium

guards. Indian officials declined to speak on record on issues pertaining to the so-called separation of civil and military nuclear facilities, but they ridiculed any wish-list that did not take into account India's unique status that was acknowledged in the July 18 agreement between President Bush and Prime Minister Manmohan Singh and also the overarching political objectives stated by Washington.

The unmistakable suggestion was that David Albright, the President of ISIS and co-author of the wish-list, viewed the India-US nuclear deal from the limited prism of non-proliferation whereas the ongoing talks have a broader ambit.

Albright is a familiar critic of India's nuclear programme and Washington's latest deal with New Delhi. In a testimony before Congress in October, he told lawmakers that the agreement "could pose serious risks to the security of the United States," a statement that caused a great deal of mirth on the Indian side considering how feckless the so-called non-pro lobby in Washington has been while US security has been endangered by its frontline ally Pakistan and its proliferation.



for nuclear weapons, including some which may have been used in two of the low yield tests at Pokhran in 1998.

It is also possible, says ISIS, groping for answers, that the plant may be making enriched uranium for naval reactors and civil research reactors. In which case it says the prototype naval reactor too should be under safe-

Track record to help India join N-league: PM

AGENCIES
Indore, December 17

PRIME MINISTER Manmohan Singh on Saturday expressed optimism that India will soon be part of the nuclear mainstream as a result of the constructive dialogue with the international community.

"Our non-proliferation track record and our scientific credentials will only add to India's weight in international cooperative endeavours to harness all the applications of nuclear energy for the country's social and economic development, for meeting our growing energy needs and for the greater glory of global scientific advancement as a whole," he said.

"In this journey of excellence, the Centre for Advanced Technology at Indore will have a critical role to play," Singh said. He arrived here on Saturday morning on his first visit to Madhya Pradesh after becoming Prime Minister.

He said the scientific and technological abilities of Indian scientists match the best in the world. "This gives us the confidence to pursue increased exchanges with the outside world with India as an equal partner with the most advanced countries in the world," he said.

"Just last week, India joined a select group of countries participating in ITER — the International Thermo-Nuclear Experimental Reactor project," Singh said and congratulated the department of atomic energy for this achievement.

Lauding Dr Ramanna's contribution to India's nuclear programmes, the PM said Dr Ramanna was instrumental in setting up the Centre for advanced technology with a view to mastering advanced technology, especially in the areas of lasers and accelerators.

CAT renamed

MANMOHAN SINGH on Saturday renamed the Centre for Advanced Technology after noted physicist late Dr Raja Ramanna and dedicated the Indus-II-Synchrotron radiation source to the country. "The re-christened Raja Ramanna Centre for Advanced Technology will play an important role in harnessing applications of nuclear energy for the country's social and economic development and in meeting the growing energy needs," he said.

PTI, Indore

Keep fast breeder reactor out of IAEA inspections: U.S. expert

✓ 17/12
10-12

‘Only imported fuel and reactors should be placed under in-perpetuity safeguards’

Siddharth Varadarajan

NEW DELHI: On the eve of crucial negotiations with the U.S. on the separation of India's civilian and military nuclear facilities, a well-known American analyst has strongly defended the Indian atomic establishment's desire to keep indigenous programmes such as like the fast breeder reactor (FBR) outside the purview of international safeguards and inspections.

In an interview to *The Hindu* on Friday, Selig S. Harrison, director of the Washington-based Center for International Policy's Asia programme, said Indian negotiators had to guard against hardline "American nationalists" in the Bush administration who are reluctant to accept India's nuclear status. Among them are Robert Joseph, Under-Secretary of State for Arms Control, whose "abhorrent" testimony at a Senate hearing last month on India accepting 'in-perpetuity' safeguards for all its civilian facilities, Mr. Harrison says, "made my hair stand on end".

Mr. Harrison, an India hand of long standing and a keen watcher of Beltway politics, says opposition in the U.S. to the July 18

- Indian negotiators should guard against hardline "American nationalists" who are reluctant to accept India's nuclear status

- Demand for in-perpetuity safeguards on all civilian facilities is "an affront to Indian sovereignty"

- Placing imported nuclear fuel or reactors in in-perpetuity safeguard, a pragmatic adjustment

nuclear agreement comes from two different quarters. "Too much emphasis in India has been given to non-proliferation theologians like Bob Einhorn, George Perkovich and Michael Krepon — who have strong feelings about this agreement and are a problem — but another strong focus of opposition is the 'nuclear dominance' types in the administration like Bob Joseph and J.D. Crouch II, the Deputy National Security Adviser."

Describing Mr. Joseph as "a John Bolton in different cloth-

ing," Mr. Harrison said that hardliners like him are "stuck on the idea that the U.S. is entitled to exercise a dominant global position through its nuclear dominance... They have zeroed in on 'in-perpetuity safeguards' because this is what most clearly defines for them the fact that the U.S. is a nuclear power and India is not".

He added: "If the whole question of safeguards — in the exact way Mr. Joseph expressed it in his testimony to the Senate on November 2 — is in fact this administration's settled policy, then we are in for a very difficult negotiation indeed." The demand for in-perpetuity safeguards on all civilian facilities, including indigenously developed ones such as the FBR, is "an affront to Indian sovereignty," says Mr. Harrison.

Dr. Anil Kakodkar of the Department of Atomic Energy has said the FBR and other civilian R&D projects must not be subjected to safeguards for the present, and Mr. Harrison agrees. "To me, it seems clear that India cannot sacrifice the integrity of that programme... Indeed, India can afford to compromise on many of the modalities of this

agreement precisely because if the FBR programme does succeed, which I am sure it will, this will give you a tremendous military potential. This is why they don't like it."

The FBR would produce fissile material but the only U.S. concern ought to be that this material not leave India. "The July 18 agreement will bring India into the non-proliferation regime and strengthen export control so that issue is taken care of," says Mr. Harrison. "The FBR is going to be a big problem for Bob Joseph and his people but I see no scope for compromise on India's part. This has to be off the safeguards list in terms of India's strategic priorities."

Suggestion

As a sweetener, Mr. Harrison suggests India offer two compromises. First, it should place the Canadian-supplied Cirus reactor — which has so far been used for weapons-related activities but is old and on "life support" — in the list of civilian facilities. And it should be willing to accept in-perpetuity safeguards for any imported fuel, equipment or reactor. The latter would be "highly regrettable" and a "sacrifice of principle" but

is a price India should consider paying.

"The obvious compromise is that any imported nuclear fuel or reactors could be placed in safeguards in perpetuity as a pragmatic adjustment, necessitated by the importance of getting civilian nuclear cooperation", he says. "And it seems to me there will be enough facilities not under safeguards — if the U.S. is prepared to accept India's civilian list — that the Indian deterrent would be quite secure. There will be plenty of plutonium in the unsafeguarded facilities, and there's the FBR is the long run".

On the sequencing of Indian and U.S. actions, Mr. Harrison says there would also be difficulty. "In the end, I am not sure if State Department types who see a strategic benefit to the U.S. from nuclear cooperation with India will prevail. I don't know if Condoleezza Rice will get into this enough herself, or Mr. Bush, to keep the hardline nationalist types from getting terms written into this deal and then making it seem like these terms are reasonable and that India is not accepting them. So I am not sure how deeply Bush will get into this."

17 DEC 2005

THE HINDU

16 DEC 2005

THE HINDU

Talks on India-U.S. nuclear deal proceeding on "strict reciprocity"

16/12/05
Mile on Swamy's Friday

Special Correspondent

NEW DELHI: Prime Minister Manmohan Singh on Thursday said in the Rajya Sabha that there was no stalemate in the talks between India and the United States on the Joint Nuclear Statement signed on July 18. Talks were proceeding on "strict reciprocity."

Seeking to allay members' apprehensions on the U.S. seeking more concessions, the Prime Minister said the joint statement was a "binding constraint" on both the countries. "If the United States does not carry out its commitments under the joint statement, then India is also free not to carry out its reciprocity," he said.

Responding to supplementaries during the question hour, he said the Working Group headed by Foreign Secretary Shyam Sa-

Joint statement a "binding constraint" on both countries

Both working out ways and means to find satisfactory solutions

No question of putting India's nuclear facility under supervision

ran and U.S. Under Secretary of State for Political Affairs Nicholas Burns had one "good meeting" and were scheduled to meet again later this month.

He said approval by the U.S. Congress to the July 18 Statement signed by U.S. President George Bush and himself was the concern of the American administration. "We have both taken certain commitments and are working out ways and means to find satisfactory solutions for both to honour their commitments."

To Samajwadi leader Amar

Singh's question whether India had accepted any provision for future fissile material cut-off, the Prime Minister said was a question for the future. "All we have agreed on is to work with like-minded countries on such a treaty. When that treaty materialises, is difficult to say."

When Chandan Mitra (BJP) sought to know what exactly was meant by "reciprocity," Dr. Singh said he had explained this in great length in his statement to the House.

Dinesh Trivedi (BJD) wanted to know if the Government had a contingency plan in case the U.S. Congress ratification did not come through.

Dr. Singh said it would not be proper to disclose any contingency plan. "If the U.S. does not carry out its commitments, we are free not to carry [out] ours," he said.

To a query by Sushma Swaraj (BJP) on whether India would separate its civil and military facilities under the supervision of the U.S., Dr Singh pointed out that he had said "unambiguously" in his statement in the last session of Parliament that whether to place Indian facilities and reactors under international supervision was entirely India's decision.

"There is no question of putting India's nuclear facility under any supervision."

N-separation on: PM

said, "They are the property of the Pathak Commission. Once they complete their work, the papers will be available to Parliament, as will the ATR. We are not going to keep anything hidden."

With the world's attention on a "historic" East Asian Summit, Singh repeatedly stressed on the positive and growing nature of relations with China, besides delivering a sweeping affirmation of India's future in the East Asian region.

Seeking to downplay Chinese reluctance to have India share the stage at the East Asian Summit, Singh said, "There is a misconception that India and China are in competition. We are partners." Replying to a question on whether parts of the Indian establishment were wary about Chinese firms, he went on to stress, "I welcome Chinese investment in the country." He had a lot more to say on China. "We need faster growth in our economic exchange with China. Even on the border issue, we are hopeful that we can make progress—we have agreed on the basic principles." Apart from China, Singh had a special word about Japan.

"There's a new wave in Japan. Not only trade and investment, India is seeking cooperation in many other fields."

The Prime Minister expressed a strong belief in India's role in East Asia. "The largest savings surplus in the world is in East Asia and South East Asia. So, If we are looking for investment, we don't have to look West—the surplus resources, surplus savings are in Asia, South East Asia."

"In our quest for foreign investment, this is the region of the greatest importance," Singh said. He also added that the region recognizes that a fast-growing Indian economy has a beneficial impact on growth processes of South-East Asia as a whole.

Trade with ASEAN has been growing at a fair clip, and will receive a further boost with the signing of a Free Trade Agreement, which will be in the works in 2007. With a web of FTAs being put in place by the 16 countries that make up the East Asian Summit, the future creation of a regional trade agreement is a distinct target. Intra-regional trade in East Asia accounts for half of total trade, setting the stage.

12 DEC 2005

DR SINGH ■ Dismisses demand for expanding scope of Justice Pathak probe, says no plan to tinker

N-separation at fairly advanced stage: PM

SUNIT ARORA

ON BOARD PM AIRCRAFT,
DECEMBER 11

INDICATING that India is pushing to quickly meet commitments made in the Indo-US nuclear deal, Prime Minister Manmohan Singh today said that the exercise for separating civilian and military nuclear facilities is at a "fairly advanced stage".

Singh's statement on the nuclear deal—made to reporters en route to Kuala Lumpur where he will attend the ASEAN summit and East Asian summit—assumes significance as there have been indications that the US has been going slow in putting in place a legislation to be approved by the US Congress. Informed sources said that India's separation exercise will



Sonia Gandhi sees off the PM. Anil Sharma

reflect a definite move forward when Foreign Secretary Shyam Saran visits Washington next week.

When questioned about Left parties' pressure to in-

crease the 8.5 per cent interest rate announced by the Employees Provident Fund Organisation (EPFO), Singh once again dropped the ball firmly in the EPFO's court, refusing Budgetary support, but did say: "If they (EPFO) can sustain a higher rate, I will be happy."

On another domestic sizzler, Singh brushed aside demands to expand the scope of the Justice R S Pathak Commission of Inquiry which is probing allegations made in the Volcker Report. "The Pathak Commission's scope has been spelt out. We have no proposal to tinker with that," he said. On the BJP demand to make public the papers Special envoy Virendra Dayal has got from the UN, the PM

CONTINUED ON PAGE 2

12 DEC 2005

INDIAN EXPRESS

Manmohan's Moscow Manoeuvre

PM to negotiate deal for supply of nuclear fuel

By Diwakar/TNN

Moscow: Manmohan Singh is likely to negotiate an agreement with Russia for the supply of nuclear fuel to Tarapur and other nuclear power plants. India is also looking to purchase more nuclear plants from Russia at the Koodankulam. Confirming that fuel for Tarapur would figure in his talks with Russian President Vladimir Putin, the PM said, as he landed to a red-carpet welcome in Moscow on Sunday: "Our relationship with Russia in the field of nuclear energy has already come to stay. The Koodankulam project has been built with their help. Cooperation in the field of nuclear energy is ongoing. There is certainly the scope for expanding that in the years to come."

The agreement, if it achieves closure, will come as a respite for India and promises to be one of the highlights of the PM's visit. Sources said a couple of months ago national security adviser M K Narayanan visited Russia to tie up the nuclear agreement, while DAE chairman Anil Kakodkar is accompanying the PM.

According to sources, Tarapur needs enriched uranium, while the other power plants require natural uranium as fuel. Since India's stocks of natural uranium

are clearly not adequate, India had repeatedly asked for fresh supplies from Russia. But, citing the Nuclear Suppliers Group (NSG) guidelines, which prevented supply of nuclear fuel to countries not under IAEA's "full-scope" safeguards, Russia has closed the tap for the past few years.

It was only because the Koodankulam plant was signed in 1988, before the NSG guidelines came into force in 1992, that the plant is still under construction.

The change in heart in Moscow came about after India signed a landmark agreement with the US on July 18, which opened up the civilian nuclear energy sector for India. Since then, it's been a race with other nuclear powers like France and Russia to get the first foothold into the Indian market.

For countries like Russia and France, the business possibilities in the nuclear energy sector in India are immense. Since Koodankulam is a Russian plant, there is also the added advantage of comfort with a tried product from an old friend. India will also ask Russia to work on the NSG to relax its guidelines for India. The US has undertaken the job of opening up this world body for India, but India reckons that the more voices in India's favour, the merrier. For



WARM WELCOME: Prime Minister Manmohan Singh shakes hands with Russian officials, as wife Gursharan Kaur looks on, after their arrival in Moscow on Sunday

the present, it is the combined energies of UK, France, US and Russia that are on India's side. What India will want from Russia and

France will be to bring around the hold-outs — the Norwegians, Latin Americans, South Africa and New Zealand.

India Inc fails to tap Russian market: PM

By Diwakar/TNN

Moscow: In what is not likely to sound like music to the business delegation accompanying Manmohan Singh, the Prime Minister said on Sunday that Indian commerce had failed to make the most of Russia's emergence as one of the world's fastest growing economies.

The PM was inclined to brush aside the standard complaints from Indian business that Russia could be more cooperative in terms of issuance of visas and some other facilities. Instead, Singh tended to put the onus of India getting a meagre slice of the Russian market on Indian business.

"Indian businessmen tend to be somewhat lazy. There may be some complaints on the Russian side, but Russia is one of the fastest growing economies. It is increasingly embracing market principles," Singh said.

The PM said: "The responsibility to explore how more efficiently the possibilities of the Russian market can be tapped lies with our business who have to find the resources and sources."

He also said that despite some problems with Russia over "geographic indicators", India would not oppose Moscow's entry into the WTO.

The rap on the knuckles of Indian businessmen and the implication that they tended to whine too much, may have come as a rude awakening for the commerce-oriented passengers on the PM aircraft. Singh also did not say much on the current boom in the stock market.

The PM, as finance minister in the Narasimha Rao government had remarked that he did not lose sleep over the stock market. Maintaining the same stance, he said, "Markets have a logic of their own. Some see optimism in the economy, some see it taken over by irrational expectations. I would rather not comment," he said.

“No compulsion for India to separate civil and nuclear facilities”

J. Nuclear Energy Review

Other “benefits” to New Delhi as per accord with U.S. may not be available

25/11 HD-1

Diplomatic Correspondent

NEW DELHI: India will be under “no compulsion” to separate its civil and nuclear facilities if it finds the process too complicated and expensive, official sources said here on Friday. “We don’t have to go ahead with this,” the sources said about India’s commitments under the July 18 civilian nuclear deal with the United States.

But in case India took the view that separation was not viable, the other “benefits” that were to flow to New Delhi as per the accord would not be available.

It is for the first time since the nuclear deal was clinched that an official indication from the Manmohan Singh Government has suggested that India reserves the right not to go ahead with the agreement if the hur-

• **Russia facilitating talks on nuclear enrichment between Iran and E.U. ‘three’**

• **India prepared to share a “road map” with U.S. on the separation of facilities**

dles to identifying the civilian nuclear facilities are too great.

In response to questions, the sources, however, said India would have no problem if Washington wanted to share the separation plan with the Nuclear Suppliers Group or the International Atomic Energy Agency (IAEA) before the U.S. Congress made the necessary legislative changes to lift nuclear restrictions on New Delhi.

The U.S. had understood that the process of identifying India’s civilian nuclear facilities was complicated and expensive

and would have to be done in a phased manner. According to the sources, the U.S. also understood that a change in its legislation would not come at the end of the process of implementing the July 18 agreement.

The sources stressed that India would be prepared to share a “road map” with the U.S. on the separation of facilities, but this had to be an exercise carried out only by the Government of India. On the absence of a resolution referring Iran to the United Nations Security Council at the IAEA governing board in Vien-

na, the sources admitted that India was “happy and relieved” that there was no vote.

Pointing out that the U.S. and the European Union had the votes to refer Iran to the Security Council, the sources maintained that had such a development taken place Iran might have walked out of the Nuclear Non-proliferation Treaty and expelled IAEA inspectors.

Suggesting that the European Union “three” (France, Germany and Britain) were likely to resume negotiations with Iran in early December, the sources said Iran’s right to nuclear enrichment had been recognised, but some of it could be offshored to another country. Russia, they said, was engaged in facilitating the talks between Iran and the E.U. “three”.

রাষ্ট্রপুঞ্জ ইরান নয়, কেন্দ্রের আশ্বাসে আপাতত নরম বামেরা

নিজস্ব সংবাদদাতা, নয়াদিল্লি, ২১
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চেষ্টার প্রসঙ্গটি যেন নিরাপত্তা পরিষদে
না-যায়। ইরান পরমাণু অস্ত্রপ্রসার রোধ
চুক্তির শরিক এবং নিজেদের দায়িত্ব
সম্পর্কে সচেতন। এখন সরকারও
ব্যাপারটাকে আন্তর্জাতিক পরমাণু শক্তি
সংস্থা (আইএইএ)-এর মধ্যে সীমাবদ্ধ
রাখার জন্য কূটনৈতিক তৎপরতা
চালাচ্ছে এবং এ বিষয়ে বামেরদের সঙ্গে
দৃষ্টিভঙ্গির কোনও তফাত নেই।”

সরকার যেন আমেরিকার সঙ্গে
হাত মিলিয়ে ভোট না-করে, সেই প্রসঙ্গে
বামেরা এত দিন সরব ছিল। আজ
তেমন কোনও আশ্বাস প্রধানমন্ত্রী
দেননি। তবে তিনি জানিয়েছেন যে,
দিল্লি চায় না, বিষয়টি নিরাপত্তা
পরিষদে যাক। গোড়া থেকে সরকারের
এটাই বক্তব্য ছিল। ইউরোপীয়
ইউনিয়নের আনা প্রস্তাবের পক্ষে

ভোটের পরেও সরকার বলেছিল,
ইরান-প্রশ্নের নিরাপত্তা পরিষদে না-
যাওয়া নিশ্চিত করার জন্যই ভারত
প্রস্তাবের পক্ষে ভোটে গিয়েছে। কিন্তু
তখন সেই যুক্তি মানেনি বামেরা।

পাকিস্তানের পরমাণু বিজ্ঞানী
আব্দুল কাদির খান কী ভাবে ইরানকে
পরমাণু-সূত্র পাচারের চেষ্টা করছিলেন,
সেই তথ্য আইএইএ-র কাছে এসেছে।
সম্ভবত এই ঘটনার কথা সামনে রেখেই
বামেরদের মনোভাবে খানিকটা
পরিবর্তন এসেছে। ফলে, অকস্মাৎ এই
প্রসঙ্গে সংঘাত ছেড়ে তাঁরা সমঝোতার
পথে সরে এলেন। রাজনৈতিক সূত্রের
খবর, আজ প্রধানমন্ত্রীর বক্তব্যের পরে
বৈঠকে প্রকাশ কারাট-ডি রাজা-অবনী
রায়েরা ব্যাপারটা নিয়ে বেশি ঘটাঘাটি
করেননি। এ বি বর্ধন ও দেবব্রত বিশ্বাস
বৈঠকে ছিলেন না।

বৈঠকের পরে আব্দুল কাদির খান
সম্পর্কে প্রশ্ন করা হলে ইয়েচুরি বলেন,
“আই এ ই এ এই সম্পর্কে কিছু তথ্য
পেয়েছে। দেখা যাক, ওই সংস্থা কী
সিদ্ধান্তে পৌঁছয়।” তবে বাম সূত্রে দাবি
করা হয়, শেষ পর্যন্ত বিষয়টি নিরাপত্তা
পরিষদে পাঠানো হলে এবং দিল্লি সেই
প্রস্তাব সমর্থন করলে সরকারের সঙ্গে
তিজতা বাড়বে। সরকার অবশ্য মনে
করছে, এখনই ব্যাপারটা সেই পর্যায়ে
পৌঁছবে না। আমেরিকা, ব্রিটেন, ফ্রান্স-
সহ বিভিন্ন দেশের সঙ্গে ভারত এ নিয়ে
আলোচনা করছে।

বৈঠকে প্রণব মুখোপাধ্যায় প্রস্তাব
দেন, এই আলোচনার ভিত্তিতে ২৪
তারিখ সকালে সংসদে প্রসঙ্গটি যেন
না-তোলা হয়। বৃহস্পতিবার রাতেই
বিষয়টি নিয়ে আই এ ই এ আলোচনায়
বসবে। বামেরা সেই প্রস্তাবও এক
প্রকার মেনে নিয়েছে। আই এ ই এ-র
বৈঠকে যদি আপাতত ইরানের সঙ্গে
সংঘাত এড়ানো সম্ভব হলে অবশ্য পরে
সংসদে আলোচনায় ধার থাকবে না।

বামেরা আজ নটবর ও ভোলকার
রিপোর্টের প্রসঙ্গ তুললে সরকার পক্ষ
থেকে চিদম্বরম তাদের জানান, কী
ভাবে তদন্ত চলছে। আগের সরকারের
আমলের যে বরাতগুলি সম্পর্কে
বামেরদের প্রশ্ন ছিল, সেগুলি ইতিমধ্যেই
তদন্তের আওতায় রয়েছে বলে তিনি
জানান। পরে ইয়েচুরি বলেন, যে ভাবে
কাজ এগোচ্ছে, তাতে তাঁরা সন্তুষ্ট।

সমঝোতা অন্যত্রও: পেনশন বিল
প্রসঙ্গেও সিপিএম আবার সমঝোতার
ইঙ্গিত দিয়েছে। এ বার অর্থমন্ত্রী
চিদম্বরম এই ব্যাপারে একটি নোটও
তাদের দিয়েছেন। ইউনিয়নগুলির সঙ্গে
কথা বলে, ১৫ ডিসেম্বরের মধ্যে
বামেরা মতামত দেবে বলে তাঁকে
জানিয়েছে। একই ভাবে শিপিং
কর্পোরেশন-সহ ছোট লাভজনক
রাষ্ট্রায়ত্ত্ব সংস্থার বিলম্বিতকরণের
প্রস্তাবও বামেরা প্রায় মেনে নিয়েছেন।
তবে প্রতিটি সংস্থার ক্ষেত্রে তারা
আলাদা করে মতামত দেবে।

PM wants growth in N-energy

Press Trust of India

MUMBAI, Nov. 15. — Prime Minister Dr Manmohan Singh today said India was keen on establishing an environment that was conducive to international cooperation in peaceful use of nuclear energy without compromising the country's national policy of maintaining the strategic requirement.

Addressing nuclear scientists at the 16th annual conference of the Indian Nuclear Society here at Bhabha Atomic Research Centre (Barc), Singh said India must create the space for a quantum jump in nuclear energy production in the coming years. However, this will be done without constraining strategic and R&D related aspects of the country's nuclear programme.

"The future energy programme will be carried out in a manner that is consistent with our national policy of maintaining the integrity of our three-stage nuclear energy programme without constraining strategic and R&D related aspects of the programme," Singh said.

This is the Prime Minister's first visit to the Barc since the Indo-US agreement in July on cooperation in civilian nuclear

energy sector. On international cooperation, Singh said that increasingly large-scale scientific projects have made it imperative for nations to join hands both to share costs and to benefit from the largest pool of expertise.

Some of these projects are now subject to public interest like those of the International Thermonuclear Experimental reactor project, the Large Hadron collider in Geneva, the generation IV international forum to develop advanced nuclear reactors and the satellite navigation programme.

To cope with the requirement for the expanding nuclear energy programme, it was important that the newly-formed deemed university Homi Bhabha National Institute should try to become a major contributor to the growing pool of scientific manpower.

Science investment

The Prime Minister said today the Centre would double the investment in science and technology to around two per cent of GDP. He said: "Monitoring technological advances and widening the involvement of our young scientists in various projects, ensures that access to new developments are not restricted."

India must first begin separation of nuclear facilities, says U.S.

Gov. vs #10-12 2/14

Administration officials praise India's anti-Iran vote, Saran's promise on separation

Siddharth Varadarajan

NEW DELHI: Confirming the statement made last week by the U.S. State Department spokesman that the separation of India's civilian and military nuclear facilities was a "precondition" for Congress being asked to relax its nuclear commerce rules, senior Bush administration officials said the Indian side would have to begin implementing this commitment before the administration would present any related legislative drafts to the Hill.

They also outlined a broad vision for the U.S.-India relationship of which civilian nuclear cooperation was just one part. Cooperation in the promotion of democracy in Central Asia and Myanmar, the sale of U.S. nuclear equipment and civil and military aircraft, and future Indian participation in U.S.-led military undertakings like the Proliferation Security Initiative were described as some of the strategic and economic benefits which would accrue to Washington once the proposed nuclear deal goes through.

But for the entire process to begin, India has to effect a separation between its civilian and military nuclear facilities, the of-

• Broad vision for U.S.-India relationship outlined

• It must craft a credible and transparent plan: Burns

• Separation and safeguards must contribute to non-proliferation goals: Joseph

officials stressed.

"Our judgment is that it would not be wise or fair to ask Congress to make such a consequential decision without evidence that the Indian Government was acting on what is arguably the most important of its commitments — the separation of its civilian and military nuclear facilities," Under-Secretary of State for Political Affairs Nicholas Burns told the Senate Foreign Relations Committee on November 2. He said during his visit to New Delhi in October, he had told the Indian leadership "that it must craft a credible and transparent plan and have begun to implement it before the Administration would request Congressional action."

He added that Foreign Secretary Shyam Saran has "assured me that the Indian Government will produce such a plan."

Both Mr. Burns and Robert G. Joseph, the Under-Secretary of State for Arms Control, favoured

the U.S. side had laid out "some straightforward principles." "I will not enumerate them fully here since the negotiations remain ongoing, but would like to underscore just a couple of these. For example, to ensure that the United States and other potential suppliers can confidently supply to India and meet our obligations under the NPT, safeguards must be applied in perpetuity. Further, the separation plan must ensure — and the safeguards must confirm — that cooperation does not "in any way assist" in the development or production of nuclear weapons. In this context, nuclear materials in the civil sector should not be transferred out of the civil sector."

Mr. Joseph said that "several countries" had told the U.S. that India must not be granted "de jure or de facto status as a nuclear weapon State under the NPT." This was the reason, he said, "a 'voluntary offer' arrangement of the type in place in the five internationally-recognised nuclear weapon States would not be acceptable for India." The U.S., he said, agreed with this argument. Only if New Delhi put forward a "credible and defensible plan" of separation would many States

"become more steadfast in their support" of the plan to allow nuclear commerce with India.

Once India comes up with "credible, transparent, and defensible separation plan," the U.S. "will be ready to engage with our NSG partners in developing formal proposals to allow the shipment of Trigger List items and related technology to India. Mr. Joseph said. "Obviously, the number of facilities and activities that India places under IAEA safeguards, and the method and speed with which it does so, will directly affect the degree to which we will be able to build support for full civil nuclear cooperation."

Saying that he hoped India would "also take additional non-proliferation-related actions beyond those specifically outlined in the Joint Statement," Mr. Joseph noted "with satisfaction" the Manmohan Singh Government's vote against Iran at the IAEA in September. Turning to the commercial benefits, he said: "As a result of our involvement in India's civil nuclear industry, U.S. companies will be able to enter India's lucrative and growing energy market, potentially providing jobs for thousands of Americans."

US 'principles' guide N-deal with India

Devirupa Mitra in New Delhi

Nov. 3.—The USA has for the first time indicated some of the "principles" that should be followed for the separation of civilian and military nuclear facilities by India — one of the commitments under the 18 July India-US civilian nuclear deal.

These details were spelt out by the US undersecretary of state for arms control and

international security, Mr Robert G Joseph, at a hearing on the US-India deal before the Senate foreign relations committee.

During the recent visit of the US undersecretary of state for political affairs, Mr Nicholas Burns, the Americans had put forward some "straightforward" principles for creating a "defensible" separation plan, which Mr Joseph described as a "critical bellwether for Indian intentions".

The foremost among the "principles" is that India should put the declared civilian nuclear facilities under IAEA safeguards for "perpetuity". "For example, to ensure that the United States and other potential suppliers can confidently supply to India and meet our obligations under the NPT, safeguards must be applied in perpetuity," said the senior state department official.

He said such a demand for

Indian civilian nuclear facilities being under IAEA safeguards forever was also a pre-

'USA will engage with Nuclear Supplier Group partners on a formal proposal only after India makes demonstrable progress on key points'

condition for support from other countries.

"In this context, several

countries have argued that it is integral to maintaining the integrity of the global regime that India not be granted de jure or de facto status as a nuclear weapon state under the NPT.

"For this reason, many have indicated that a voluntary offer arrangement of the type in place in the five international-ly-recognised nuclear weapon states would not be acceptable for India," said Mr Joseph.

This position was also taken

by the USA during the meeting of the Nuclear Suppliers' group last month, when it said that "we would not view a voluntary offer arrangement as defensible from a non-proliferation standpoint or consistent with the joint statement, and therefore do not believe that it would constitute an acceptable safeguards arrangement".

He added that the separation plan must confirm that the cooperation with the USA does not assist in the develop-

ment or production of nuclear weapons. "In this context, nuclear materials in the civil sector should not be transferred out of the civil sector," he said.

The official said that the USA would engage with fellow NSG partners on a "formal proposal" only after India makes "demonstrable progress" on key points, especially have "a credible, transparent, and defensible separation plan foremost on the list".

J. N. Subrahmanyan 5/3

পরমাণু অ্যালানির পক্ষেই বিদেশে সওয়াল ইয়েচুরির

সীমা সিরোহি • রোম

১ নভেম্বর: যে বামেদের বিরোধিতা নিয়ে আন্তর্জাতিক মহলে প্রশ্নের মুখে পড়েন মনমোহন সিংহ, সেই বামেদের নেতাই সওয়াল করলেন তাঁর সরকারের হয়ে। আন্তর্জাতিক মঞ্চে স্বয়ং প্রধানমন্ত্রী থেকে শুরু করে সরকারের বিভিন্ন প্রতিনিধিরা গত কয়েক মাস ধরে যে দাবি করে চলেছেন, সেই দাবিই এ বার করলেন সীতারাম ইয়েচুরি। বললেন, পরমাণু অস্ত্র প্রসার রোধ বিষয়ে আন্তর্জাতিক নীতি মেনে চলছে ভারত। ফলে ভারতের উপর থেকে পরমাণু প্রযুক্তি বিষয়ে নিষেধাজ্ঞা তুলে নেওয়া হোক। শুধু তা-ই নয়, আমেরিকার সঙ্গে

অসামরিক পরমাণু প্রযুক্তি চুক্তি নিয়ে দেশে সমালোচনায় মুখর হলেনও ইয়েচুরি বলেছেন, জ্বালানির প্রয়োজনে পরমাণু শক্তি অপরিহার্য। এবং ভারতের তা অবশ্যই দরকার। তবে তা পেতে ভারত যে আমেরিকার চাপের কাছে মাথা নোয়াবে না, তা-ও স্পষ্ট করে দেন ইয়েচুরি। নিউ ইয়র্কে আন্তর্জাতিক পরমাণু শক্তি সংস্থার রিপোর্ট প্রসঙ্গে এক বৈঠকে তাঁর এই বক্তৃতার কপি বিলি করেছে ভারতীয় দুতাবাস। বৈঠকে এই লিখিত বক্তৃতাই যদি ছবছ অনুসরণ করে থাকেন ইয়েচুরি, তা হলে বলতেই হয়, সফল চাল দিয়েছেন মনমোহন।

প্রতি বারই নিয়মমাফিক আন্তর্জাতিক পরমাণু শক্তি সংস্থার

রিপোর্টের বিষয়ে তাদের মন্তব্য জানাতে প্রতিনিধি পাঠায় ভারত। এ বার দিল্লি বুকেশনেই ইয়েচুরিকে পাঠিয়েছে বলে সংশ্লিষ্ট মহল মনে করছে। আমেরিকার সঙ্গে অসামরিক পরমাণু প্রযুক্তি চুক্তি করার পরেই সমালোচনায় মুখর হয়েছে বাম দলগুলি। আমেরিকার কাছে দেশের স্বার্থ বিকিয়ে দেওয়ার অভিযোগ তোলে তারা। সংস্থার নীতি থেকে শুরু করে পরমাণু প্রযুক্তি বা আমেরিকার সঙ্গে প্রতিরক্ষা সহযোগিতা-সব বিষয়ে বামেদের বিরোধিতা যেমন কোনও কোনও সময় ইউপিএ সরকারের কাছে অস্বস্তিকর, তেমন আমেরিকার 'অবাঞ্ছিত চাপ' ঠেকাতে এই বিরোধিতাকে ব্যবহারও করে মনমোহন

সরকার। সংশ্লিষ্ট মহলের ধারণা, ইয়েচুরিকে পাঠিয়ে তাই দিল্লি বোঝাতে চেষ্টা করেছে পরমাণু শক্তির প্রয়োজনীয়তা আছে। তেমন আমেরিকার চাপের কাছে ভারত যে মাথা নোয়াবে না, বাম নেতার এই বক্তব্য ওয়াশিংটনের কাছেও প্রয়োজনীয় সংকেত পৌঁছে দেবে। সিপিএম সাংসদ বলেছেন, অসামরিক পরমাণু প্রযুক্তির বিষয়ে সহযোগিতায় কোনও বৈষম্য চলবে না। সার্বভৌমত্বের নীতি মেনে চলতে হবে। দিন কয়েক আগেই ইরান নিয়ে ভোটভুক্তির বিষয়ে সরকারকে তুলোথোনা করেছেন বামেরা। এবং এ বিষয়ে বামেদের চাপ যথেষ্টই। বিষয়টি আন্তর্জাতিক মহলে যথেষ্ট প্রচারও

পেয়েছে। তার পরে এক বামনেতার মুখে মনমোহন সরকারের এই 'দৌত্য' শুনে আন্তর্জাতিক মহল বেশ আশ্চর্য। কারণ কারও ব্যাখ্যা, ইয়েচুরি বুঝিয়ে দিতে চেয়েছেন, ইরান বা চিনের চাপে পড়ে বামেরা যে ইউপিএ সরকারের বিরোধিতা করছে, এই ধারণা সম্পূর্ণ ভুল। বরং তাঁরা বোঝাতে চান, বামেরা এখন পৃথিবীটা দেখছে 'ভারতের চোখ দিয়েই'। পাশাপাশি, কোম্পানি সরকার টলাতে নয়, ইউপিএ-র ভিত আরও শক্ত করতেই বামেরা এখন বেশি আগ্রহী, সেটাও তিনি বোঝাতে চেয়েছেন। বাম নেতার দাবি, পরমাণু অস্ত্রপ্রসার রোধ চুক্তি অত্যন্ত বৈষম্যমূলক। তাই ভারতের তাতে সই করার কোনও প্রশ্নই ওঠে না।

US terms on nuclear pact shock govt

By Chidanand Rajghatta/TNN

Washington: You go first... *pehle aap*. The Bush administration on Thursday categorically put the onus on India to first take steps to separate its civilian and nuclear programmes before it could put any "potential agreement" before the Congress.

Washington's stand, which runs contrary to the idea that the nuclear deal involved simultaneous reciprocal steps by both countries, was spelt out by a state department spokesman after renewed protests from lawmakers who feared that the Bush administration was bypassing the Congress. In fact, the spokesman went as far as describing India's requirement of separating the civilian and nuclear programmes as a "pre-condition" for the administration to present what he called the "potential agreement" before the Congress.

"If any agreement does, in fact, go forward, it would require action by the Congress. But before we actually present any agreement to the Congress, India needs to take several steps, including the separation of their civilian and military nuclear programmes, so these are pre-conditions for us actually presenting this agreement to the Congress," state department spokesman Sean McCormack said. He also suggested that the deal involved India taking "several steps" before it could move forward and it was not just a matter of separating civilian and military nuclear programmes.

"We are convinced that this is a good agreement for the United States and a good agreement for India and the world if India does take certain steps," he added. The remarks were evidently aimed at mollifying some lawmakers concerned about the speed with which the administration was going ahead with the deal.

At a hearing earlier in the day, some legislators complained about not being kept in the loop and taken for granted while some analysts, who testified, suggested India would get

India, Iran leave IAEA issue behind

Moscow: India and Iran have agreed that "minor" differences on Teheran's nuclear programme should not come in the way of their long-term relationship.

At a meeting external affairs minister K Natwar Singh had with Iranian vice president Perviz Davoodi here on Wednesday on the sidelines of the Shanghai Cooperation Organisation meeting, both leaders agreed that any "tactical move" by ahead of the IAEA vote should not have any negative impact on the bilateral ties. It was reiterated that minor differences should not be allowed to stand in the way of the long-term vision of close political, economic and cultural relations. India's decision to support the IAEA resolution against Iran's N-programme had also raised questions over the status of the \$7.4 billion gas pipeline project and the LNG deal. TNN and Agencies

too much from the deal and give too little.

"The situation is strange... that Indian authorities know more about this (deal) than Congress," Henry Hyde, chairman of the House international relations committee, said, before warning, "We (must) keep in mind that though the administrative branch has the right to conclude agreements with countries, it is up to Congress to make laws."

While the administration rushed to address sentiments from the Congress, its remarks put the pressure on the government, which is accountable to its own lawmakers and public opinion, both of which have been led to believe the nuclear deal involves reciprocal obligations.

Roadmap for India drawn at ITER meet in China

PRANAB DHAL SAMANTA
NEW DELHI, OCTOBER 27

INDIA'S route to the prestigious International Thermonuclear Experimental Reactor (ITER) project is becoming clear.

As the joint exploratory team that had recently visited India presented its report in Chengdu, China, the assembled ITER delegates chalked out a "series of steps" that will pave the way for India's participation.

The feedback was positive as delegates from China, US, European Union, Japan, Korea and Russia did not raise any major objections to India's scientific and technical capabilities for becoming a part of this fusion reactor project.

After the week-long meeting, it was disclosed that the ITER delegates have agreed on "a series of steps for the near future leading towards a possible agreement among all parties to India's accession".

While it is still not clear what these steps would entail, indications are that the details of the Indian contribution have to first be

Energy priority: Natwar

MOSCOW: External Affairs Minister Natwar Singh said here today that India would actively cooperate with the Shanghai Cooperation Organization (SCO) to ensure security and stability, fight terrorism and foster economic cooperation in the region. India joined the regional grouping last July as an observer along with Pakistan and Iran. Singh also proposed energy cooperation as a priority sector within the ambit of SCO activities, including regular meetings of SCO Energy Ministers. "An important area that holds great promise in the India-Russia context is energy security, as Russia is one of the largest producers of oil and gas and India is a rapidly growing energy market," he said. —ENS

worked out.

In a letter on July 11 expressing Indian interest to join the project, Anil Kakodkar, Chairman of Atomic Energy Commission, had stated that India is looking to make a substantial contribution in kind given its own research in the area of fusion technology.

Sources, however, indi-

cated that New Delhi is keen on joining the project and will look positively at meeting any particular requirement that may have been identified.

Helping India become a part of the ITER project was one of the commitments Washington had made in the July 18 Indo-US joint statement.

The willingness on the part of member countries to include India is also being seen as a major step in the direction of ending India's isolation from the cutting edge nuclear research underway in the world.

New Delhi is also keen to join the US-led Generation-IV reactor programme.

After Kakodkar's letter — sent just before Prime Minister Manmohan Singh's visit to Washington — that laid out India's case, the ITER member states met in September at Cadarache, France, and decided to send a joint exploratory team to India. The team was here earlier this month and visited sites where research related to fusion reactors are being carried out.

India submits to the Bush doctrine?

The Government's 'bold' new line on non-proliferation is full of sound and fury but signifies nothing other than the loss of our official capacity to analyse the world rationally and independently.

Siddharth Varadarajan

DESPITE THE fiasco over the non-discovery of weapons of mass destruction in Iraq, one of the enduring foreign policy successes of the Bush administration has been the diversion of international concern about nuclear weapons away from America's own stockpile, doctrine, and force posture and towards the problem of 'rogue' proliferation. Within this discourse, North Korea, which says it has nuclear weapons, and Iran, which Washington insists is actively pursuing a weapons programme, pose a grave and imminent threat to international security, while the U.S. efforts to militarise space and enhance the flexibility and usability of its nuclear arsenal through the development of new kinds of 'small' weapons such as bunker busters pose no danger to the world at all.

Central to this approach is the notion that the new nuclear "threats" must be dealt with not through rule-based, multilateral institutions such as the Conference on Disarmament but through *ad hoc*, U.S.-led coalitions that arrogate to themselves the right both to draw up new rules and regulations and to enforce them with military means if necessary. Largely due to the resistance of China and South Korea, Washington was forced to drop its reliance on the threat of force against North Korea and work towards a negotiated settlement of the Korean nuclear question. But Iran still remains firmly in the Bush administration's sights.

Until now, the self-serving reduction of the problem of proliferation to one of the "horizontal" spread of weapons alone (rather than of "vertical" or qualitative enhancement as well) has tended to be accepted only by Washington's closest allies and friends. But with the Indo-U.S. strategic partnership entering a decisive new phase, the Indian foreign office has become the latest convert to this cause. Earlier this week, Foreign Secretary Shyam Saran delivered a major lecture entitled 'Nuclear Non-Proliferation and International Security,' which attempts to lay out the new Indian perspective on the subject.

The lecture intended to answer the domestic critics of the Government's vote against Iran at the September 24 International Atomic Energy Agency meeting by embedding that inexplicable decision in a supposedly wider policy framework. Mr. Sa-



DEFENDING THE DEAL: Foreign Secretary Shyam Saran. - PHOTO: ANU PUSHKARNA.

ran also sought to reassure U.S. legislators that India was a 'genuine' believer in the Bush doctrine on non-proliferation and could be relied upon to continue extending its "support" to other "national and transnational efforts" like the controversial Proliferation Security Initiative provided the July 18 Indo-U.S. nuclear deal comes through.

Mr. Saran says a "new global consensus on non-proliferation is called for," which can take into account "new challenges." This new global consensus "would have to be based on new and more rigorous standards being observed in export controls on sensitive technologies" such as those involved in reprocessing and enrichment. While one can understand the Government's eagerness to reassure the U.S. that it is deadly serious about export control, why should this be the only area where a new "global consensus" is required? Surely a global consensus on the prevention of an arms race in outer space is equally important? As is a consensus on, say, a first-use only doctrine rather than the frighteningly flexible use doctrine the U.S. military subscribes to?

Had Mr. Saran sought to analyse the problem of non-proliferation and international security from the perspective of international strategic realities, he would have pointed out that Washington's missile defence programme will lead to a new and more deadly missile race. Countries targeted by U.S. nuclear weapons would seek to nullify the advantage missile defence will confer

on their principal adversary. He would also have pointed out how the doctrines of preemptive war and 'regime change' have vitiated the security environment to such an extent that many countries are once again looking at nuclear weapons as a means of state survival. Even if horizontal proliferation were its sole concern, a state that is serious about, say, the danger of Iran going nuclear would counsel both Teheran to respect its international obligations and the U.S. to abandon the path of confrontation, sanctions, and regime change.

An afterthought

Of course, India knows the charges against Iran are trumped up — it admitted as much in its convoluted "explanation of vote" at the IAEA last month — and only went along with the anti-Teheran resolution because of pressure from the U.S. As an afterthought now, Mr. Saran has introduced a new element to justify that vote — the need to put A.Q. Khan in the dock. "With respect to the Iran nuclear issue ... we see no reason why there should be an insistence on personal interviews with Iranian scientists but an exception granted to a man who has been accused of running a global 'nuclear Walmart'." Had India raised this point during the IAEA debate on Iran, it might have carried more conviction. Today, it is an idle fantasy to believe that the Bush administration is seriously interested in getting at Dr. Khan or that the anti-Iran vote will lead to a chain of events in which the Pakistani

nuclear establishment — and military — will stand exposed.

Towards the end of his speech, Mr. Saran makes an observation on the proposed separation of military and civilian nuclear facilities that suggests it is not just our national capacity for rational analysis that is being compromised. "It makes no sense," the Foreign Secretary declared, "for India to deliberately keep some of its civilian facilities out of its declaration for safeguards purposes." If Mr. Saran's words are followed through, all civilian nuclear facilities — including the prototype fast breeder reactor (PFBR) and other R&D facilities — will be offered for IAEA safeguards. This is something Anil Kakodkar, chairman of the Department of Atomic Energy, had ruled out in an interview to *The Hindu* and *Frontline* in August. Mr. Saran's statement would also appear to contradict the suggestion made by Prime Minister Manmohan Singh in Parliament on July 29 that the identification and separation of military and civilian facilities would be a "phased action" that will be "based solely on our own duly calibrated national decisions" and would be "taken at appropriate points in time." The Prime Minister's use of the plural — "points in time," "calibrated national decisions" — clearly indicates a separation process that would involve deliberately keeping some civilian facilities out of the safeguards declaration for some finite period of time.

Has the official line on separation changed since July 29? Is Mr. Saran's assessment on the ease with which all civilian facilities can be placed under safeguards correct, or is Dr. Kakodkar's plea that the PFBR and other R&D facilities must be kept out? As time elapses, it is becoming increasingly clear that the separation envisaged has to be a total, irrevocable and one-shot affair. Until now, both sides have been speaking about the need for New Delhi and Washington to fulfil their obligations under the July 18 agreement in tandem. Today, there is no room for any ambiguity: it is India that has to make the first move. "[B]efore we actually present any agreement to the Congress," U.S. State Department spokesman Sean McCormack said on October 26, "India needs to take several steps, including the separation of their civilian and military nuclear programs, so these are preconditions for us actually presenting this agreement to the Congress."

THE HINDU

28 OCT 2005

DELHI SIGNAL ■ Methodology, not principle between India and n-security initiative

Looking beyond NPT, India hints at joining PSI

CRAJAMOHAN

NEW DELHI, OCTOBER 26

IN declaring its commitment to go beyond the Nuclear Non-Proliferation Treaty (NPT) in strengthening the global nuclear order, the Government has ruled out support to Iran's uranium enrichment programme, raising the possibility of India joining the proliferation security initiative (PSI).

India's renewed focus on Pakistan's clandestine nuclear export activities, especially the A Q Khan network, reinforces the political basis for India joining the PSI.

In his Monday speech—said to have been cleared at the highest political level—Foreign Secretary Shyam Saran insisted that NPT rules are no longer adequate in dealing with new proliferation challenges.

While the NPT permits all member states to develop capacities for uranium enrichment and plutonium reprocessing, which have both civilian and military uses, there is a growing consensus that access to these technologies must be restricted.

India is now part of this new consensus.

“Our export controls are today at global standards and our policy of non-transfer of re-processing and enrichment technologies, in fact, put us in an ‘NPT plus’ category,” Saran said.

While Iran claims the right to enrich uranium, most nations are suspicious of its intentions after it was caught with an undeclared 18-year-old programme. The international community is offering Iran full cooperation in developing its civilian nuclear energy programme if it gives up plans for enriched uranium.

“The time when NPT was regarded as self-enforcing is long past,” Saran declared. Arguing that denying technologies through supply controls is no longer enough to prevent the spread of nuclear weapons, Saran called for more “active non-proliferation endeavours” by the international community.

These include the UN mandate to criminalise proliferation activities, and such “national and trans-national efforts” as the PSI, Saran said.

The PSI calls for cooperative military activities by member states to interdict the illegal transfer of materials related to weapons of mass destruction. More than 60 countries participate in the PSI launched by the Bush Administration in 2003.

Leaving the question of India joining the PSI open-ended, Saran said, “Advocates of non-proliferation must seriously examine whether the support of India towards global efforts is to their advantage... That support is difficult to muster if India perceives itself as unfairly treated despite its demonstrated commitment to a rule bound system.” He was suggesting that if its concerns were met, India might be prepared to join the PSI.

The Bush Administration has partly met these concerns by disbanding the so-called “core group” of 11 founding members of the PSI a few months ago. India did not want a second-tier membership of the PSI.

India hesitated to join the PSI in 2003 when it saw Russia oppose it.

However, to India's surprise, Russia itself joined the PSI in 2004. China, which initially demurred against the PSI is now engaging the US.

Given India's own bitter experience with clandestine proliferation to and from Pakistan, it was inevitable that it joined the PSI in its own interests.

North Korea's supply of advanced missile technologies to Pakistan (in return for Islamabad's transfer of enrichment technology to Pyongyang) has brought almost all Indian cities under the Pakistan nuclear shadow. The illegal trafficking in WMD materials as well as small arms in India's neighbourhood makes a global regime of active military interdiction in Delhi's interest.

Acknowledging the powerful contribution that the Indian Navy could make in preventing the proliferation of WMD material in the Indian Ocean, international supporters of the PSI want India to sign on at an early date. And despite the attempts by some to inject theological considerations into the Indian debate on PSI, Saran's remarks now signal it is methodology and not principle that stands between India and the PSI.



Shyam Saran

Delhi seeks new consensus on nuclear proliferation

9- million amount primary *25/10*

Statesman News Service

NEW DELHI, Oct. 24.— In a major policy speech, foreign secretary Mr Shyam Saran called for a “new global consensus” on non-proliferation and advocated that the focus should also be on supplier states of illegal nuclear material, rather than just on recipient states.

The speech delivered at a meet organised by Institute of Defence Studies and Analyses was targeted at detractors of India’s foreign policy positions on Iran and the US civilian nuclear energy agreement, not just the domestic opposition, notably from

the Left on the increasing “foreign hand” in India’s nuclear policy, vis-à-vis Iran. It also tried to answer foreign voices which had said that the India-US agreement on civilian nuclear energy will unravel the international non-proliferation regime.

Mr Saran’s theme for the speech was that “India’s approach to nuclear non-proliferation has been consistent, principled and grounded as much in our national security interests as in our commitment to a rule-based international system”.

The foreign secretary linked the case of international pressure on Iran to the relative shelving of the

AQ Khan network from the agenda.

Welcoming Iran’s cooperation with IAEA vis-à-vis previously undeclared activities, he said other aspects of Khan’s network should also be clarified. “We see no reason why there should be an insistence on personal interviews with Iranian scientists but an exception granted to a man who has been accused of running a global ‘nuclear Wal-Mart’. These must surely be considered for an objective assessment,” he said and called for a “new global consensus” taking into account the new challenges that have emerged since the NPT was inked.

INDO-US ■ Important we don't move goalposts or raise bar: Burns

Bush visit to Delhi next yr is deadline to secure N-deal



Foreign Secretary Shyam Saran with US Under Secretary of State Nicholas Burns in New Delhi on Friday. Photo by Anil Sharma

PRANAB DHAL SAMANTA
NEW DELHI, OCTOBER 21

THE US today underlined its commitment to the nuclear deal with India, making it clear that it is laying no conditions outside the obligations made in the July 18 joint statement. The two countries have now agreed to implement these commitments by early next year when US President George W Bush is expected to visit India.

After day-long talks with Foreign Secretary Shyam Saran today, US Under Secretary of State for Political Affairs Nicholas Burns said no other issues were linked to the nuclear deal.

"It is important that we meet the commitments made to each other and that we do not move the goalposts or as we say in American English, raise the bar," he replied to a question on whether the deal was linked to other issues like the Indian vote against Iran in the IAEA.

It was clear after the first meeting of the joint working group set up to implement the July 18 joint statement that

Bush's proposed visit is now a working deadline for officials on both sides to get their act together.

Burns said the Bush Administration was working towards getting a legislation passed through the Congress by then so that Washington is in a position to reach an agreement on comprehensive civil nuclear cooperation when Bush gets here.

Saran and Burns spent the entire second half of their negotiations on the complex nuclear issue. The two sides exchanged notes on the modalities to implement the commitments made in the joint statement.

The Indian side pointed out that it already has in place a moratorium on nuclear tests, enacted the a legislation against proliferation of WMDs and harmonised its export laws with that of the Nuclear Suppliers Group and the MTCR regime.

"What we had today was an initial exchange of views on these modalities. We sought certain clarifications from the American side and the American side asked for clarifications from our

CONTINUED ON PAGE 2

F-16s for Pak next week cast shadow on security talks

C RAJA MOHAN
NEW DELHI, OCTOBER 21

DESPITE the tall talk on de-hyphenating US relations with India and Pakistan, the impending American sale of 80 F-16s to Pakistan (to be announced next week) has begun to cast a shadow over the Indo-US regional security dialogue which is being held tomorrow.

There's growing concern on the Indian side that US tactical interests in Pakistan might begin to overwhelm the proclaimed long-term American commitment to build a strategic partnership with India.

As they survey the Asian security scenarios tomorrow, the challenge for Foreign Secretary Shyam Saran and US Under Secretary of State Nicholas Burns is to begin a frank discussion on Pakistan—a country in which both have huge stakes.

Unless they begin to sort out the

CONTINUED ON PAGE 2

'NO HURDLES TO NUKE SUPPLIES TO INDIA'

US committed to no rider N-deal

22/10 ST-1 J. Nuclear Energy Power

Statesman News Service

NEW DELHI, Oct. 21. — The USA today asserted that there were no other "issues" associated with the implementation of the Indo-US civil nuclear energy deal.

The US undersecretary of state for political affairs, Mr Nicholas Burns, said this at a joint press conference with the foreign secretary, Mr Shyam Saran. Mr Burns arrived here last night.

Mr Burns' remarks were in the context of a question on the possible link between the nuclear energy pact and New Delhi's stand on the Iran-Pakistan-India pipeline.

He pointed out that the joint statement on the nuclear energy deal spelt out the obligations to be met by both sides. "I know that both sides will fulfil their obligations," he said, adding: "No other issue is associated with it".

Again on a question on Iran and the International Atomic Energy Agency (IAEA), Mr Burns parried a question on whether the USA would be watching India's voting carefully and that it would be an input in taking forward the nuclear deal. He iterated that a diplomatic solution was still a possibility, if "Iran should come back to negotiation".

Otherwise, the issue could be referred

to the United Nations Security Council.

He said: "We are not adding any conditions. We Americans will meet the obligations we have undertaken and hope that India will abide by its obligations".

He added that the Bush administration was "fully convinced" that it could carry out the process of getting the legislation passed to approve the India deal through the US House of Representatives and Senate. "I believe that there is significant support in Capitol Hill. But, there are some doubts, and some are opposed to it, but it is part of democracy," said Mr Burns. He was "convinced that Congress will support" the legislation by early 2006 — by the time President Bush arrives in India in February-March 2006.

The foreign secretary said the joint statement had set out very clear parameters, which were "confirmed" by both sides during today's discussions.

"We sought certain clarifications from the Americans, and they did from us," said Mr Saran.

He said the US official had been told that India had "delivered" on some of the parameters, like unilateral declaration of non-proliferation, bringing legislation on weapons of mass destruction and the harmonisation of export control rules with the Nuclear Suppliers' Group and the MTCR.

THE STATESMAN

27 OCT 2006

INDO-US PACT ■ UK, France, Canada receptive; Sweden, Japan wary No NSG action on nuke deal

CAROL GIACOMO

WASHINGTON, OCTOBER 20

KEY nuclear-supplier nations have put off action on a US proposal to give India a permanent exception to international rules barring the transfer of nuclear technology, US officials said on Wednesday.

The proposal is a key element of the Indo-US nuclear cooperation deal that the two countries are trying to complete by early next year.

There was positive feedback to the proposal at the 44-member Nuclear Suppliers Group (NSG) meeting, but a "decision was deferred until the fu-

ture," a senior US official said. Washington went into the meeting expecting a consultation, but not action, he said.

At the meeting, Britain, France, and Canada were generally supportive, but Sweden asked "hard questions" and Japan seemed wary of the India deal, officials said.

The US has for nearly 30 years led the global fight to deny India access to nuclear technology. But on July 18 this year, US President George W. Bush jettisoned this approach, and his administration is now working on winning effective international and domestic recognition of India as the sixth nuclear-weapons state, along with the US, Britain,

France, Russia and China.

US officials say the broad aim is to complete the approval process before Bush visits New Delhi for a summit in early 2006.

However, there are doubts about whether the US Congress—where members of both parties have expressed skepticism—will act by then.

In addition, the next scheduled NSG session is in May, so getting that group to approve the rules change before Bush's visit to India would require a special meeting, officials said.

"I don't think it's going to be able to be done by the summit. It's much too difficult and sensitive an issue," a second senior US official said.

Several factors are at play in the timetable for the deal. The second official said it is important for Congress to act before the Nuclear Suppliers Group, so other nations could not beat American companies to the lucrative Indian market.

US officials want to ensure India soon implements its part of the nuclear deal, including separating military and civilian nuclear programmes, to help ease doubts in the US Congress. Also, Washington wants India to keep supporting US and European efforts to force Iran to abandon its nuclear ambitions. A delay by the suppliers group could hold out a carrot for India to stay in line over Iran. —Reuters

INDIAN EXPRESS

নিষেধাজ্ঞা

প্রত্যাহারে

সওয়াল

ভারতের

ভিয়েনা, ২৮ সেপ্টেম্বর:
আন্তর্জাতিক পরমাণু শক্তি সংস্থার
(আই এ ই এ) সাধারণ অধিবেশনে
তার উপর থেকে পরমাণু প্রযুক্তি
বিষয়ক সব রকম নিষেধাজ্ঞা দ্রুত
তুলে নেওয়ার জন্য জোরালো সওয়াল
করল ভারত। নিষেধাজ্ঞা উঠে গেলে
ভারতও পর্যায়ক্রমে অসামরিক
পরমাণু প্রকল্পগুলিকে বিশেষ সুরক্ষার
আওতায় আনার কাজ শুরু করবে।

আই এ ই এ-র অধিবেশনে
ভারতের প্রতিনিধি ছিলেন পরমাণু
শক্তি কমিশনের চেয়ারম্যান অনিল
কাকোদকর। ইরানের পরমাণু কর্মসূচি
নিষে আই এ ই এ-র প্রস্তাব ভারত
ইতিমধ্যেই সমর্থন করেছে। তা ছাড়া,
অসামরিক ক্ষেত্রের জন্য পরমাণু
জ্বালানি পাওয়ার ব্যাপারে আমেরিকার
সঙ্গে যে কথাবার্তা হয়েছে, তাকেও
ভারত একটা ইতিবাচক রূপ দিতে
চায়। এই পরিপ্রেক্ষিতে অনিল আজ
আন্তর্জাতিক নিয়মনীতি মেনে চলার
ক্ষেত্রে ভারতের আগ্রহ এবং
দায়িত্বশীলতার কথা বারবার উল্লেখ
করেন। ভারত চায়, তার উপর থেকে
নিষেধাজ্ঞা তোলা হোক। পাশাপাশি,
সে-ও অসামরিক প্রকল্পগুলিতে বেশ
কিছু সুরক্ষাকবচ বেছে নেবে এবং
যথাসময়ে তা খতিয়ে দেখতে আই এ
ই এ-কে ডাকা হবে। — পি টি আই

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ANADAR...
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Atom of Doubt

11-18
N.B. Pinn

India's nuclear establishment should shed secrecy

THE diplomatic decks have been cleared for India to upgrade its civilian nuclear power programme. Canada has lifted its 30-year ban on export of nuclear technology to this country. It could not forgive India for diverting its reactor technology to conduct the first Pokhran test. With the US and the UK giving the thumbs-up signal, India is set to hit the nuclear road. Should it view nuclear power as the energy of the future? Till very recently viewed as a hazardous and uneconomical means of producing power, nuclear energy is making a comeback all over the world, thanks to oil prices ruling at over \$60 a barrel. In a more cynical sense, nuclear power is a promising option for countries inclined to circumvent Kyoto Protocol norms to reduce carbon emissions. However, nuclear enthusiasts cannot easily wish away ghosts of Chernobyl. The 1986 disaster raises questions that are disturbing and relevant to this day, on the safety of nuclear power and the secrecy of nuclear establishments worldwide. India has, in effect, accepted international inspection of its civilian nuclear sites, while maintaining status quo in its military side. The programme should be more open to its own citizens as well.

Former Atomic Energy Regulatory Board chairman, A Gopalakrishnan, had some shocking things to say on the safety of India's nuclear plants and the attitude of the presiding bureaucracy. That India should have claimed right after Chernobyl that its nuclear plants are safe seems ludicrous in view of his revelations. India's atomic energy establishment should become accountable to the people under the new right to information law. As in the US, an independent regulator, consisting of experts drawn from outside the government, should oversee all nuclear power facilities. Such a body should report regularly to Parliament, not only on the state of nuclear plants but also their impact on surrounding populations. No energy strategy should be driven on the assumption that some unfortunate minorities will have to pay the price of progress. Nuclear power contributes 3% of India's total power generation of about 100,000 MW. The optimists expect it to generate 20,000 MW by 2020. For that, capacity utilisation, now barely 50%, will have to improve. But some more basic issues need sorting out.

2-11-08

THE TIMES OF INDIA

The unravelling of India's Persian puzzle

Siddharth Varadarajan

FOR ALL its pretensions to a permanent seat on the United Nations Security Council, India on Saturday flunked its first real test as a rising world power. Where no less than 11 countries smaller and less powerful than us — Venezuela, Algeria, Brazil, Mexico, Nigeria, Pakistan, South Africa, Sri Lanka, Tunisia, Vietnam, and Yemen — had the courage and good sense to join Russia and China in refusing to endorse the U.S.-backed agenda of confrontation with Iran, India threw in its lot with Washington and the European troika.

Scared by a well-choreographed bout of shadow boxing at the start of Congressional hearings on the July 18 Indo-U.S. nuclear deal, the Manmohan Singh Government convinced itself that it had to side with Washington's unreasonable pressure on Iran. In doing so, the Government has betrayed its own lack of strategic confidence — this at a time when the fine print of the nuclear deal is about to be negotiated and the slightest sign of diplomatic weakness will be used by Washington to push the envelope on issues like the scope of international safeguards and inspections India

REALITY CHECK

must accept in order to see the July 18 agreement through.

Moreover, the Government has chosen to go along with a confrontationist move against Iran, which undercuts a key legal argument India has been making for 50 years — that countries can only be held to account for international agreements they sign. The Nuclear Nonproliferation Treaty (NPT) gives Iran the right to pursue the nuclear fuel cycle subject to safeguards. It gives Iran the right to build a heavy water reactor. The Additional Protocol Iran has signed specifies the kind of intrusive inspections it must allow. But the International Atomic Energy Agency resolution India voted for makes demands that go far, far beyond

By voting against Iran in the IAEA, India has put its alliance with the United States above any concern of national interest, energy security or international law.

Iran's legal obligations. This is a dangerous precedent for India to agree to since this means the safeguards agreement and additional protocol it has committed to sign with the IAEA also one day need not be the final word on its legal obligations.

The vote India cast in the IAEA Board of Governors (BoG) was in favour of a resolution finding Iran in "non-compliance" with its safeguards obligations under the NPT and expressing "the absence of confidence that Iran's nuclear programme is entirely for peaceful purposes." The finding is under two Articles, XII and III, of the IAEA Statute, both of which mandate referral of the matter to the Security Council. Unlike the referral under Article XI-I.C, which is more of a procedural nature, the referral under III.B.4 invokes the Security Council's responsibilities for maintaining international peace and security and holds out a thinly veiled threat of sanctions and other punitive measures.

In what is supposed to be a major "compromise," Britain, France, and Germany (the E-3) dropped earlier language stipulating that the referral to the Security Council should be immediate. The timing of this referral has been left to a future BoG meeting, presumably the one that will be convened in November. The Indian Government, in justifying its decision to back the resolution, has cited this two-step approach as a big concession. Indian officials claim this delay provides the time and space needed for dialogue and diplomacy to work, a claim of extraordinary naivety and even double-speak. First, Saturday's resolution is more likely to close the door on dialogue than re-open it since it demands Iran surrender even more of its rights under the NPT than ever

before. Secondly, the U.S. itself did not necessarily want an immediate referral because there is little practical significance to dragging Iran before the UNSC where China and Russia would exercise their veto. What it really wanted was for the international community to recognise Iran's civilian nuclear energy programme as a threat to international peace and security requiring potentially endless "special verification" inspections, which go far beyond that required under the normal safeguards agreement and Additional Protocol. Armed with this broad endorsement, Washington can now choose the time and place for the political — and even military — escalation that is surely in the offing.

Given the composition of the BoG, securing a majority had never been an issue for the U.S. and its allies. But in the absence of consensus, which was an impossibility anyway, engineering India's defection from the ranks of the developing countries was crucial. The U.S. needed to undercut the charge that the West was ganging up on the Third World in denying Iran the right to nuclear fuel cycle-related facilities. Winning over Ecuador, Peru, Ghana, and Singapore was not good enough since these are not countries known for the independence of their foreign policy. The U.S. needed India to provide a cover of credibility for the unreasonable indictment against Iran and the Manmohan Singh Government happily went along. That is why U.S. Undersecretary of State Nicholas Burns has hailed India's vote as "a blow to Iran's attempt to turn this into a developed world versus developing world debate."

Of all the demands the IAEA resolution makes, three are highly problematic and *ultra*

vires. First, it says Iran must implement "transparency measures ... which extend beyond the formal requirements of the Safeguards Agreement and Additional Protocol." Calling Iran a "special verification case," the BoG said this requires an expansion in the "limited" legal authority of the IAEA to conduct inspections. Specifically, this must include "access to individuals, documentation relating to procurement, dual use equipment, certain military owned workshops and research and development locations." In this way, the road has been cleared for an Inspection Raj of the UNSCOM/UNMOVIC type, which, even after physically checking every possible location in Iraq several times over, never had the ability to say Baghdad possessed no weapons of mass destruction. The resolution's demand for access to individuals is also quite rich, considering that the source of the technology Iran is suspected of possessing — A.Q. Khan — is sitting pretty in Pakistan, beyond the reach of IAEA inspectors.

Secondly, Iran has been told to resume the suspension of enrichment-related and reprocessing activity. Unlike all previous resolutions of the BoG, which called on Iran to suspend its enrichment, this resolution makes no explicit mention of the voluntary, non-legally binding nature of Iran's commitment to suspend those activities. By this subtle act of elision, a voluntary, non-legally binding undertaking is being elevated to the status of a legally binding commitment. Thirdly, the resolution says Iran must "reconsider the construction of a research reactor moderated by heavy water." This is a new and illegal demand that did not figure in the last resolution passed by the BoG on August 11, 2005, and represents a further shift of the goalpost.

The irony of the Indian capitulation on Iran is that its display of political weakness comes at a time when the U.S. has finally become aware of India's strategic weight and significance and is attempting desperately to harness these for its own ends. When President George W. Bush offered Dr. Manmohan Singh full civilian nuclear cooperation, he did so in full knowledge that India has tended to side with the rest of the developing world on the question of Iran. Either his decision to support India's nuclear industry was taken independently of the Iran equation or it was conditional on New Delhi ditching Teheran both as a source of energy security and as a conduit for the integration of India and Central Asia. If the former is the case, the Manmohan Singh Government had nothing to fear from sticking to its earlier stand of "consensus" in the IAEA BoG. And if it was the latter, then surely this amounts to a hidden — and onerous — cost India is now being forced to pay in order to see the nuclear deal through.

Any deal or partnership that hangs on such a slender thread, which attempts forcibly to rewrite India's strategic equations, and undermines the country's strategic autonomy cannot possibly be in the national interest. Nuclear power of the kind that might flow from this deal will never be a substitute for hydrocarbons in the medium-term. Even in the long-term, India will depend on gas imports from Iran and Central Asia, preferably via pipeline.

If not today, then five years from now, the logic of India's economic growth will compel a rewriting of the rules of international nuclear commerce for the country — this time not as a concession or favour from the U.S. but as the product of objective market forces. By blackmailing India into voting against Iran, the U.S. hopes to undermine Indo-Iranian economic relations to such an extent that New Delhi becomes a stakeholder in the drive for "regime change" there. How much the world has changed in a year. A country that once condemned the invasion of Iraq and refused to send its soldiers there is today in danger of becoming an accessory to the strangulation and targeting of Iran.

Iranian puzzle

10-10 2019

THE HINDU

18/09

A Fine Balance

In IAEA vote on Iran, India discards shibboleths for realpolitik

NEW Delhi has played it just right by buying time for Iran before it is referred to the Security Council for violating the nuclear Non-proliferation Treaty, while going along with the IAEA resolution pulling up Iran for its violations. India has said that it is against Iran acquiring nuclear weapons, but diplomacy should be used to settle differences. The role it played in the IAEA has been consistent with this stand. To say that it should not have voted as it did because it is friendly with Iran is a non sequitur; it is also friendly with the US, the EU and other parties concerned. And it is not in its own interest to have a nuclear Iran in its neighbourhood. It is less of a cliché to suggest that New Delhi ought to utilise its friendly relations with the parties involved to facilitate a resolution of the dispute. In that case it would be positioning itself much as China is doing in the Korean crisis, walking off with diplomatic plaudits whenever an agreement is signed. India's offer to join the EU-3 in attempting to resolve the crisis is in the right spirit; it should also urge the US to get involved and engage Iran as the best way forward.

Likewise, New Delhi should counsel Tehran that engaging the West is in its best interests. Recent statements by Tehran, such as the announcement that it will share its nuclear technology with the Muslim world, are bound to stoke fears of runaway nuclear proliferation. Tehran has brusquely told New Delhi that since it is a non-aligned nation, it has to vote against or abstain from any IAEA strictures. Nobody should be able to take New Delhi for granted — it should send out a clear signal that it is not in the boy scout league any more, and that the days of reflexive Third World solidarity, no matter what the issue, are over. The Left's reaction is predictable — it acts on the basis of the theological premise that anything in which the Americans are involved must be opposed. Since the BJP does not share this premise its reaction, tallying with the Left, is stranger. Perhaps it is explained by another premise — anything in which the UPA government is involved must be opposed.

India votes with USA on Iran N-curbs

Devirupa Mitra/SNS

NEW DELHI, Sept. 24. — India has supported an International Atomic Energy Agency board resolution that could lead to Iran being eventually referred to the United Nations Security Council. The draft resolution, proposed by the EU-3, Britain, France and Germany and supported by the USA, was approved today in Vienna with 22 “yes” votes, 12 abstentions and Venezuela saying the sole “no”.

The EU draft resolution is a revision of the former version which had called for an immediate referral of Iran to the UNSC for allegedly violating the Nuclear Non-Proliferation Treaty. The new draft requires Iran to be reported to the UNSC by an unspecified later date. India was among the few non-aligned, developing countries to support the vote, with the rest, including China, Russia and Pakistan, sitting on the abstention bench.

In a late night statement, the external affairs ministry spokesperson, Mr Navtej Sarna, said that the reasons for India’s support were based on two “major preoccupations”: the Iran nuclear issue should be dealt with within the IAEA. Secondly, the different parties should have gained sufficient time for negotiations.

On the first point, Mr Sarna said the EU-3 changed the draft resolution “to take our concern on board”. He added that the draft resolution had also deferred any decision on referral till the next meeting of the board in November. “We have thus gained time for further consultations,” he said. It was asserted, though, that India had a “difficulty” with certain portions of the draft, including the part that talked about Iran’s “non-compliance” with its safeguards agreement. It opposed the observation that Iran constituted a threat to international peace and security.

It was pointed out that another part of the draft had stated that “good progress has been made in Iran’s correction of the breaches and in the Agency’s ability to confirm certain aspects of Iran’s current declarations”. “In view of this, finding Iran non-compliant in the context of Article XII-C of the Agency’s Statute is not justified. It would also not be accurate to characterise the current situation as a threat to international peace and security,” said an MEA note.

It was stated that while India would have preferred to go by consensus, the EU-3 draft enjoyed the support of “a significant majority of delegations” and “was arrived at after extensive consultations between them”. Mr Sarna stressed that India’s vote was not a change in policy direction, but was rather consistent with “stated position”. Rubbishing statements that India has succumbed to US pressure, Mr Sarna said: “India takes decisions based on its own independent assessment.” Refuting apprehension that it would hit bilateral ties with Iran, including energy co-operation, Mr Sarna said there was “no reason for apprehension in this regard” as India’s “constructive role” had helped Iran’s “legitimate interests”.

A million
Energy
family

'J&K SOLUTION A TASK OF HUMAN INGENUITY' Nuclear Iran not India's wish: PM

Press Trust of India

NEW YORK, Sept. 16. — In a new line on the lingering crisis over Iran's controversial nuclear programme, Dr Manmohan Singh today made it clear that India did not want another nuclear-weapon state in its neighbourhood. Regarding Kashmir, the Prime Minister said it was "a task of human ingenuity" to find a solution between the opposing stands of the two countries.

Iran's nuclear programme, which has drawn the ire of Washington and which now figures in the Indo-US ties, as well as the Indo-Pak peace process dominated Dr Singh's press conference here hours before his departure for home after a four-day visit.

Affirming that India was not "holding a brief or alibi" for Iran's nuclear programme, he said another nuclear weapons power in the neighbourhood "is not good" and that Teheran, a signatory to the nuclear Non-Proliferation Treaty (NPT), must fulfil its international obligations. At the same time diplomacy must be given "maximum scope" to resolve the issue.

The Prime Minister did not see any crisis in Indo-US ties because of Iran nor did he have any doubt about the sincerity of President George W Bush to implement the accord reached on 18 July for ending India's nuclear isolation.

Singh said that he had explained India's stand on Iran to the US President, who understood India's concerns. There was no divergence of views on the basic objectives vis-a-vis Iran, he emphasised.

On his marathon dinner meeting with Musharraf, he did not share the view that it was a "reversal" in the dialogue process. The outcome of this "essay in mutual comprehension" was constructive, he said.

Answering a question whether the dinner meeting was a "damp squib" in terms of specific results, he said he did not take a pessimistic view of the meeting which was only a sideshow from which dramatic results cannot be expected.

All the same, the Indian leader made no secret of his disappointment with the General's reference to Jammu and Kashmir and the Security Council resolutions on it in his address to the UN two days ago. That statement should not have been made but this need not "colour" the movement forward in the dialogue process.

Asserting that there was no change in



General Musharraf at the press conference. —AFP

No deadlock: Musharraf

NEW YORK, Sept. 16. — Scotching speculation of any deadlock in his talks with Dr Manmohan Singh, President Pervez Musharraf has said there is "commitment" on both sides to resolve the Kashmir and other issues in a peaceful manner through "consensus". He was addressing a crowded press conference here last night. The General insisted that it was a "productive meeting". Pakistan, he said, was prepared to go "beyond" its stated position on Kashmir "not unilaterally, but bilaterally". President Musharraf, who sometime back was pressing for a timeframe for resolving the Kashmir issue, contended that this could not be achieved overnight. President Musharraf said he would be "extremely compassionate" with regard to Sarabjeet Singh. He, however, added that he would have to look at the issue as a "matter of legality" as Sarabjeet had "killed civilians" in Pakistan. "I believe in sympathy, compassion and forgiveness," the General told reporters. Pakistan's National Security Adviser Mr Tariq Aziz has rushed to Washington to ask the USA to press India to show more flexibility, the Islamabad daily, *The News*, reported today. While Gen Musharraf was trying to tell the world that everything was hunky-dory, back home the Pakistani media was not buying it. Quoting officials, *The News* said the Pakistani side went into the talks expecting some progress, but came out "slightly disappointed." They, however, managed to salvage something from the meeting as the Indian Prime Minister accepted an invitation by Gen Musharraf to visit Pakistan. — PTI

India's stand that borders cannot be redrawn, the Prime Minister noted that Pakistan did not favour turning LoC into international border. "There should be a reconciliation of the two stands".

7 SEP 2006

THE STATESMAN

FRIDAY, SEPTEMBER 16, 2005

India needs to stand firm

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While United States President George W. Bush has reassured Prime Minister Manmohan Singh about his commitment to the agreement on civilian nuclear cooperation, there is no guarantee that the deal-makers will pull it off. The U.S. Congress, which has to change an obstructing law, will obviously have the last word. The executive branch is expected to put forward the argument that an exception must be made in India's case because it has a record of not transferring nuclear technology to other countries; has drafted new legislation to further restrict export of know-how and components; and needs to develop its energy resources rapidly. With Republicans in control of both Houses of Congress, the White House appears to have the wherewithal to push the deal through. New Delhi believes the July 2005 deal stands by itself and no conditionalities can now be added. It can perhaps depend on American corporate entities doing business in the nuclear field to use their lobbying clout with legislators. However, strong resistance can be expected from non-proliferation hawks as well as others. At least one Congressman has asserted that the Bush-Manmohan deal is predicated on reciprocity, and that India must change its position on Iran's nuclear programme. That his is not a lone voice is evident from the Bush administration's exertions on a parallel track to make New Delhi yield to this demand.

Washington is pressing the International Atomic Energy Agency to report to the United Nations Security Council that Iran has not met its obligations under the Nuclear Non-Proliferation Treaty. As a member of the IAEA's Board of Governors, India has come under intense pressure to fall in line with Washington. The United Progressive Alliance Government, unfortunately, has equivocated. It has reiterated its opposition in principle to any kind of nuclear proliferation and declared that Iran was obliged to honour its commitments. It also hopes that the diplomatic processes will produce a 'consensus' behind which it can take cover. That will simply not do. A decision on this critical issue must be based on a careful, principled examination of all aspects of the dispute between Teheran and the IAEA. There is absolutely no need to fall in line with the U.S.-led attempt to bully and box in Iran, which unlike India is a party to the NPT, has not conducted any nuclear weapon tests, and has its rights under the Treaty. The IAEA admits it has found no evidence that the Iranian uranium enrichment programme has a weapons orientation; at worst, the regulatory body is 'sceptical' about Teheran's claim that the programme is solely for civilian purposes. The imperatives of an independent foreign policy as well as national interests — among other things, India has major stakes in projects for constructive cooperation with Iran, including the proposed gas pipeline — demand that New Delhi take an independent and constructive stand in favour of moderation and an amicable negotiated resolution of a potentially explosive dispute.

19 SEP 2005

THE HINDU

Chirac's N-support reassures India

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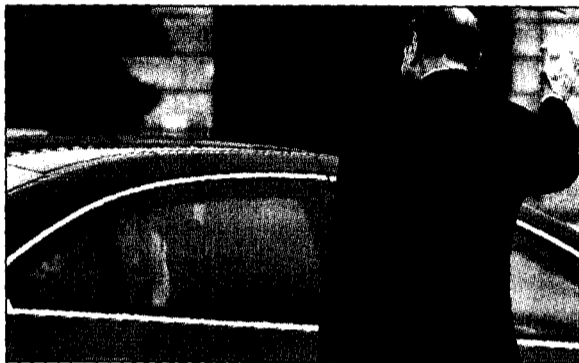
By Indrani Bagchi/TNN

Paris/New Delhi: At his first meeting with Prime Minister Manmohan Singh, French president Jacques Chirac's statement: "We will leave no stone unturned to ensure that India's nuclear energy needs are met," was music to Indian ears, which have, over the past few days, been bombarded by rude attacks by US Congressmen over Iran.

Chirac will visit India on February 20-21, 2006—a visit that will almost collide with George Bush's visit, who is scheduled to come here in early February.

Apart from reaffirming their strategic partnership, India and France also promised to work together on terrorism and WMD proliferation. The summit turned all the more sweet with Manmohan's announcement that India would buy six Franco-Spanish Scorpene submarines in a contract worth 2.4 billion euros (\$3 billion) and 43 Airbus planes worth 1.8 billion euros.

As the landmark Indo-US nuclear deal runs into rough weather in the US Congress, Prime Minister Manmohan Singh turned on the full force of India's charm offensive in France. After a meeting with Chirac, who resumed work on Monday after six days in hospital, the two leaders made a joint declaration that is certain to add to



Chirac sees off Manmohan Singh

Manmohan's confidence levels when he meets the US leadership in New York.

"France, which acknowledged the need for full international civilian nuclear cooperation with India, will work towards it by involving other countries, the nuclear suppliers' group (NSG) and by deepening bilateral cooperation." India and France will also work out a nuclear cooperation agreement, similar to that with the US. France had been surprised by the quality of the Indo-US nuclear deal, and Manmohan's visit, after 7 years, was an attempt to soothe injured feelings.

But it's a different world today, and India stands on the threshold of rewriting an international nuclear regime, where the US is the clear leader. But for India, the French support is crucial, not just because of the clout Paris holds in the NSG, but also because France leads the pack for nuclear fuel and nuclear re-

actors. It was no coincidence, therefore, that among the CEOs the PM charmed in Paris was the chief of the French nuclear reactor company—Areva. Others at the meeting included a stellar collection of French industry—Alstom, Dassault, Renault, Airbus, Carrefour, Alcatel, Safran (leaders in aeronautics), Schnieder and the crucial textile union—which was recently at the heart of the EU-China standoff. To the business community, Manmohan's message was simple: Reforms are irreversible.

Beneath the bonhomie though, it is very clear to the Indian leadership that despite France's warm reaction, no nuclear deal would have been forthcoming if the first steps had not been taken in Washington.

France also promised to work out "scholarships and exchange programmes" for Indian students, who will now be able to study in the famous "Grand Ecoles".

France backs India's UN bid

Paris: France has come out strongly in support of India's bid for a permanent seat in the extended Security Council. Promising his country's support to Prime Minister Manmohan Singh, the French President Jacques Chirac said that India's aspiration was 'legitimate' and hoped it would be realised.

"This is the reason why France has supported India's positions, in particular her aspiration for a permanent seat at the UN security council," he added.

Singh responded to the French support by saying, "We must work jointly for global political order and see to it that the economic order is managed in a just and equitable manner for all countries." TNN & Agencies

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INDO-US DEAL ■ Joint statement result of changed mindset following impeccable track record on safety, export control

N-pact: We'll watch NSG, US laws, says AEC chief

LALITHA VAIDYANATHAN
MUMBAI, AUGUST 21

INDIA will closely watch the Nuclear Suppliers Group (NSG) regime and how the United States would change in its laws with regard to dismantling restrictions and lifting embargo on civil nuclear technology before it starts reciprocating the segregation process of civilian and military nuclear facilities.

This process follows the historic Indo-US nuclear cooperation agreement which Prime Minister Manmohan Singh and President George W Bush signed last month in Washington.

"The act of identification and segregation of the civilian and military nuclear facilities in India will be taken up in a

phased manner, and is going to be purely on reciprocal basis. But before we take up take any reciprocal steps, we have to closely watch what happens to the US laws on restrictions and lifting of embargo and the nuclear suppliers group front," said Dr Anil Kakodkar, chairman, Atomic Energy Commission (AEC).

The decision on the segregation process would be purely an Indian decision and "every time we do, we will take totality into account. We have introduced enough safeguards to protect Indian interests," Kakodkar said.

"The decision on the method of segregation will be purely Indian and not dictated by anyone. It is clear that it would not be a one-time job but will be determined as per national re-



Dr Anil Kakodkar
AEC chairman

There is lot of work to be done and there is a definite direction and logic that this is the way it should go

joint Indo-US cooperation statement was the result," Kakodkar said.

There is also a renaissance of the civilian nuclear programme in the US and they have revived plans to construct new nuclear power plants after a gap of over two decades, he added.

The move by UK to lift nuclear sanctions on India a few days after the joint Indo-US declaration was a small step in positive direction, "but we have to watch them also closely," Kakodkar said.

"China has no embargo and the technology control regime does not apply to them," he said, adding "There is merit in solving the problem of restriction on India."

According to Kakodkar, it is important to recognise that

"India's growing economy needs large energy inputs. This is one of the important factors. We need 10 times more electricity in the next five decades. Nuclear power is important in this context. Besides implementing our indigenous three-stage power programme using uranium, plutonium and thorium as fuels, import of nuclear power plants and nuclear fuel would help realise energy security."

The sequential three-phase programme using pressurised heavy water reactor (PHWR), fast breeder reactors (FBR) and advanced heavy water reactors (AHWR) using natural uranium, plutonium, and thorium respectively are doing fine, he said.

The prototype fast breeder, which will be operational in a

few years, will be a commercial demonstrator that market forces pick up thereafter, he said.

While the AHWR is under advanced stages of development "our indigenous programme based on self-reliance will continue and we will give more emphasis on this," said Kakodkar.

"While we interact and cooperate, it is important that we have a self-reliant and strong domestic programme. Everyone is watching and the joint declaration is a kind of win-win situation," he said.

"It will take time and how it will unfold only time will tell," said Kakodkar, adding, "There is lot of work to be done and there is a definite direction and logic that this is the way it should go."

—PTI

New opportunities for nuclear energy

9. 11. 2005
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M.R. Srinivasan

THE AGREEMENT reached between Prime Minister Manmohan Singh and President George W. Bush in Washington on July 18, 2005, on nuclear matters can be truly described as epochal. In the impact it could have on India's nuclear energy development, it stands on a par with the decisions taken on the Pokhran I test of 1974 and Pokhran II tests of 1998. Countries like human beings are normally comfortable with the old order continuing, they are averse to change, especially changes perceived by some to be fundamental. True, India could have gone on with the present situation of nuclear power making steady but slow growth based on Indian pressurised heavy water reactors (PHWR), followed by development of the fast breeder reactor and the eventual use of the thorium. This path would mean a relatively small contribution of nuclear power, perhaps increasing from the present 3 per cent of total electric generation to a figure below 10 per cent, even after two or three more decades. Of course our nuclear deterrent capability would grow to a condition considered to be a 'credible minimum.' India would continue to be isolated from global developments in nuclear energy technologies, both civilian and military.

In the United States, President Bush questioned the wisdom of shelving the nuclear power programme, which took place some 20 or more years ago. Public acceptance was seriously eroded following the Three Mile Island and Chernobyl accidents. During the past two decades, the 400-plus nuclear power units, in different countries, have been operating safely and reliably and producing power economical costs. Although new nuclear plant construction has not yet recommenced in the U.S., the Bush administration is actively encouraging the development of advanced reactor systems. Prime Minister Manmohan Singh, as indeed his predecessor, Atal Bihari Vajpayee, has realised the importance of nuclear energy as a part of the energy mix re-

The negotiations with international partners following the India-U.S. nuclear deal cannot be left to diplomats and civil servants, but must be entrusted to acknowledged leaders in the nuclear field.

quired to fuel the Indian economy, now poised to grow at 8 per cent per annum.

In 2002, the installed electrical capacity in the country was about 139 giga watts (one giga watt is 1,000 megawatts), inclusive of captive generation. The electricity production in 2002-2003 was about 639 terrawatt hours (TWH) of which 67 per cent came from coal-fired stations, 20 per cent from oil and gas, 10 per cent from hydro and 3 per cent from nuclear. Projections of India's requirements by 2052 indicate that the total installed capacity will have to be about 1,350 giga watts and the total generation about 8,000 terrawatt hours. Of this, the coal and hydrocarbon (oil and gas) contributions would have gone down to 47 and 16 per cent and hydro to 8 per cent. The nuclear component is required to go up to 26 per cent, produced by an installed capacity of about 275 giga watts, some 100 times the present operating capacity. This nuclear contribution is essential to contain emission of greenhouse gases (carbon dioxide) and to cope with the ever-increasing prices of oil and gas, in the backdrop of rapidly declining global reserves.

At the G8 summit meeting held at Gleneagles in early July, while there was no agreement on accepting the Kyoto Protocol because of U.S. resistance, it endorsed development of nuclear and solar energy, hydrogen fuel cells and bio-fuels. Of these, the presently available large-scale source is nuclear. The Indian nuclear energy programme initially had strong cooperation with the U.S. and Canada. But after the Pokhran

tests of 1974 and 1998, it has grown on its own despite embargoes placed by the nuclear supplier countries. A wide range of research and development facilities, nuclear power stations and industrial establishments have been set up with a work force of over 50,000. The Prime Minister has leveraged this impressive strength to arrive at an agreement that promises to provide India access to civilian nuclear technology from the advanced countries.

The agreement recognises that India is a responsible state with advanced nuclear technology and that it should acquire the same benefits and advantages as other such states. India has, in turn, agreed as a reciprocal measure to identify and separate civilian and military nuclear facilities and programmes in a phased manner and file a declaration regarding the civilian facilities with the International Atomic Energy Agency and place them voluntarily under its safeguards. It is clear that India has the right to decide which facilities and programmes it would like to identify as 'civilian' for the purpose of this agreement and therefore place under safeguards. There has been a lively debate in the Indian media on whether separation of civilian and military facilities is easy or not. Some have held that it is very difficult or even impossible to do so; others opine it already exists. The truth is somewhere in between. Some time and costs will be involved to effect the separation, but the point to note is that the nuclear weapon countries have, over a period of time, achieved such separation. It is there-

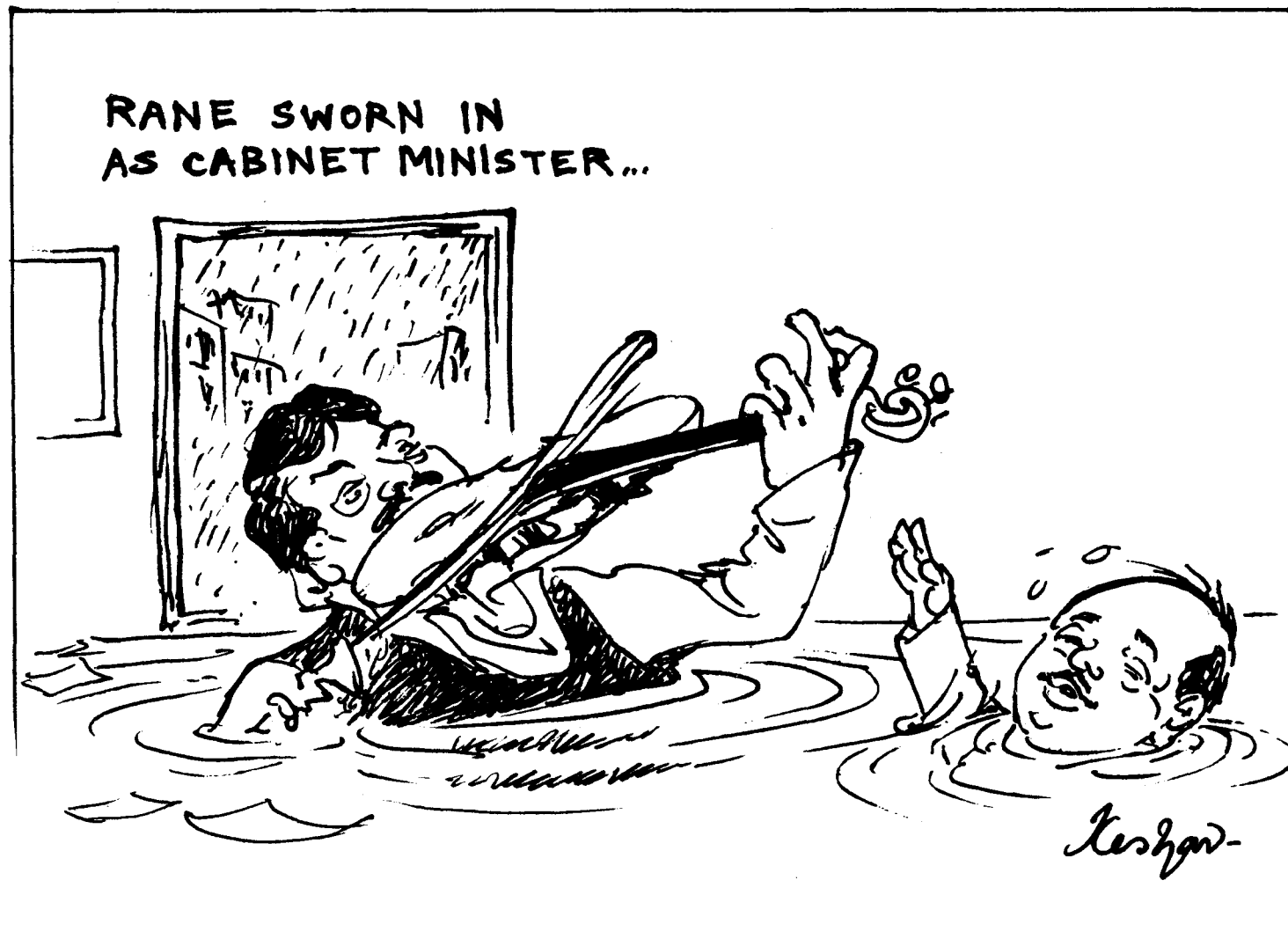
fore not unreasonable for India to do likewise.

An issue that has agitated some sections of our scientific community is whether we could continue to develop the fast breeder reactor and thorium systems without the intrusive inspections that the IAEA may mount. Under the U.S.-India agreement, India can choose to keep the prototype fast breeder reactor outside the IAEA safeguards. Similarly it is open to India to keep the Babha Atomic Research Centre and the Indira Gandhi Centre for Atomic Research either wholly or partly outside the inspection regime.

There has been some concern that the commitment to work with the U.S. on conclusion of a Fissile Materials Cut-off Treaty effectively caps our nuclear weapon programme. The FMCT is still many years away, given China's opposition. In any case, the plutonium contained in the spent fuel of our un-safeguarded reactors, prior to the entry into force of FMCT, when concluded, will be available to India for its strategic uses. The Prime Minister has rightly asserted that the agreement has in no way compromised the Indian nuclear deterrent.

President Bush has agreed to work with the U.S. Congress to adjust U.S. laws and policies to achieve full civil nuclear energy cooperation with India, and to work with its friends and allies in the Nuclear Suppliers Group to enable full civil nuclear energy cooperation and trade with India. It is well known that Russia and France are eager to supply light water reactors and low enriched uranium fuel for these reactors, as well as for the Tarapur reactors. India should immediately negotiate with Russia and France to import some ten 1000 MWe Light Water Reactors. In addition India should import natural uranium, in the form of yellow cake (i.e. U3O8) from global suppliers so that we could take up construction of some eight 700 MWe PHWR of our own design, which have been on the drawing boards for some time. India should also look for opportunities to acquire potential sites around the world where it can undertake uranium mining and beneficiation either wholly with Indian capital or on joint investment basis with the host country. In this manner, our nuclear power capacity, which is rather modest, can begin to grow fast and the groundwork can be laid for further growth in future.

CARTOONSCAPE



Contrary to facts

Some commentators have implied that with access to technology from outside India, the Nuclear Power Corporation of India might as well shut down its 'old technology inefficient units.' This is a damaging conclusion and contrary to all facts. The NPCIL units achieved operating factors in excess of 85 per cent a few years ago and had to be down-rated because of shortage of uranium. With larger quantities of uranium available at international prices, which are much lower than Indian prices, the operating costs of our older units will go down. As the Prime Minister has assured Parliament, India will continue the development of the pressurised heavy water reactors, fast breeder reactors and thorium systems as part of the national programme. Now India will also have the opportunity of joining the International Thermonuclear Experimental Reactor and Generation 4 reactors, as foreseen in the agreement.

Prime Minister Manmohan Singh deserves to be complimented for negotiating an agreement that can end India's nuclear isolation, without in any way compromising our security. Of course in the months ahead, there will be a lot of work to be done in the country and tough negotiations with our international partners. These negotiations cannot be left to diplomats and civil servants, but must be entrusted to acknowledged leaders in the nuclear field. The new agreement is both an opportunity and a challenge. India can, in due course of time, export nuclear hardware and services to an international nuclear market, which is bound to grow. Of course India must continue to work vigorously for universal nuclear disarmament, of which it has been a champion from the early days of the nuclear era.

(The writer is a former Chairman and presently member of the Atomic Energy Commission.)

LONDON TO AMEND NUCLEAR POLICY TOWARDS NEW DELHI

India back in UK favour

Statesman News Service

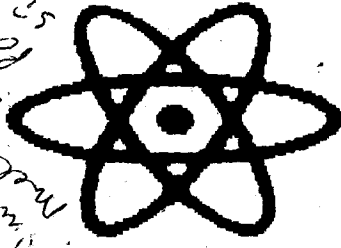
NEW DELHI, Aug. 11. — Britain has decided to amend its nuclear policy towards India to allow contacts between scientists and academics, as well as export of technology and equipment for civilian use.

The change in London's stand comes after the recent US-India nuclear pact signed during the Prime Minister's US tour last month.

Yesterday, papers were presented in the British parliament that aimed to "significantly" loosen the strict export controls on dual-use nuclear technologies to India. However, unlike the US move, there was no news in the British papers on the impending policy change in nuclear policy. Perhaps, the British government were more circumspect in light of the criticism of the US-India nuclear pact in major American papers. The move also falls in line

The considerations to be taken into account while giving licence to export dual use items, include:

- The risk of use in un-safeguarded nuclear fuel cycle or nuclear explosive activities, or acts of nuclear terrorism.
- The risk of possible onward transfer of these items to other states for proliferation purposes, including the recipient state's export control performance.
- The potential utility of the items concerned for, and contribution that they would make to, such activities.



force an agreement with the IAEA requiring the application of safeguards on all its current and future peaceful activities.

As per the pact with the USA, India has agreed to bring all its civilian nuclear energy reactors under IAEA supervision. Now under the revised British policy, it will "consider on a case-by-case basis licence applications for items on the NSG Dual-Use List destined for other activities."

However, it will still not allow items which figure in the NSG Trigger list, which catalogues things that are directly used to build nuclear weapons.

Importantly, the new policy encourages contacts between British nuclear scientists, academics and those working in or with that country's nuclear industry with their Indian counterparts, "except where we consider that such contacts might be of assistance to the weapons-related aspects of its nuclear programme."

full civil nuclear energy cooperation and trade with India, including but not limited to expeditious consideration of fuel supplies for safeguarded nuclear reactors at Tarapur. In the meantime, the USA will encourage its partners to also consider this request expeditiously".

The Nuclear Suppliers Group, of which the USA and Britain are members, allows the export of nuclear technology to a non-nuclear weapons only when the state has brought into

with the forthcoming visit of the British Prime Minister, Mr Tony Blair, from 7 September, when he will be chairing the EU-India summit also.

It also demonstrates the strength of the US-UK relationship, as it is the first country to follow Mr George W Bush's plan to open up civilian nuclear energy cooperation.

The US-India joint statement had said: "The USA will work with friends and allies to adjust international regimes to enable

N-deal had expert nod: PM

'No gang-up against China'

HT Correspondent
New Delhi, August 3

THE INDO-US nuclear deal was vetted by the chairman of India's Atomic Energy Commission before Prime Minister Manmohan Singh signed the Joint Statement in Washington on July 18. In fact, the signing of the Joint Statement was held up for about 12-15 hours as Singh insisted on AEC chief Anil Kakodkar's clearance.

Dr Kakodkar was part of the PM's delegation and went through the fine print of the agreement that will see, among other things, India segregate civilian and military nuclear facilities. Singh disclosed this in the Lok Sabha at the end of an intense four-hour debate to clear strong misgivings expressed by former PM A.B. Vajpayee and the Left over the pact. Vajpayee, who was not at his oratorical best, launched the debate by asking the PM whether "indirect conditionalities" had been imposed on India and whether its interests had been taken care of. "Has our nuclear policy changed? In a world faced with terrorism, we cannot say

with conviction when which facility will be required to safeguard our national interests," said the former PM who remained seated when he spoke.

The CPI's Prabodh Panda said India, through recent pacts with the US, had become a "junior partner of the US in meeting its global ambitions" while CPI

(M)'s Rupchand Pal pointed out that the US had lifted sanctions only on a few items. SP's Ram Gopal Varma said India could lose its sovereignty on nuclear issues. B.K. Tripathy (BJD) sought to know the investment involved in separating civilian and military nuclear infrastructure.

Backing the PM were P.A. Sangma and Congress members Pawan Bansal, Ajay Maken and Milind Deora.

In a bid to assuage the Left's fear of New Delhi getting sucked into the US' geo-political game plan, the PM pointed out that India had not entered into any military alliance with the US. "Nor has it ganged up with Washington against China or any third country. We see new horizons in our relations with China. What we have done with the US is not at the cost of China or any other country."

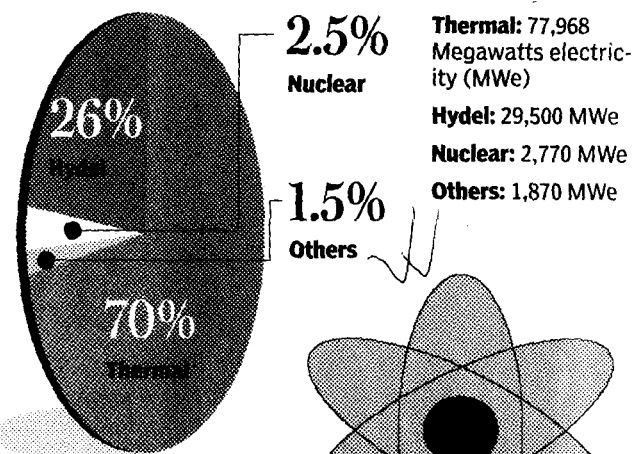
On Vajpayee's contention that the US did not agree to give India the status of a nuclear weapon state, Singh argued that India is not a signatory to the Nuclear Non-Proliferation Treaty. "But, we have virtually got all the benefits that go with being a nuclear weapon state without *de jure* status of a nuclear weapon state."

On the pipeline deal, the PM said it did not crop during talks with President Bush though he had told *Washington Post* editors that there were uncertainties. "We have explicitly stated that it is something among Iran, Pakistan and India and the US has no role in it. Singh acknowledged there were "uncertainties" as "we don't know what the US Congress will do but every aspect of the pact is on a reciprocal basis. India will not do anything until the US honours its commitments."

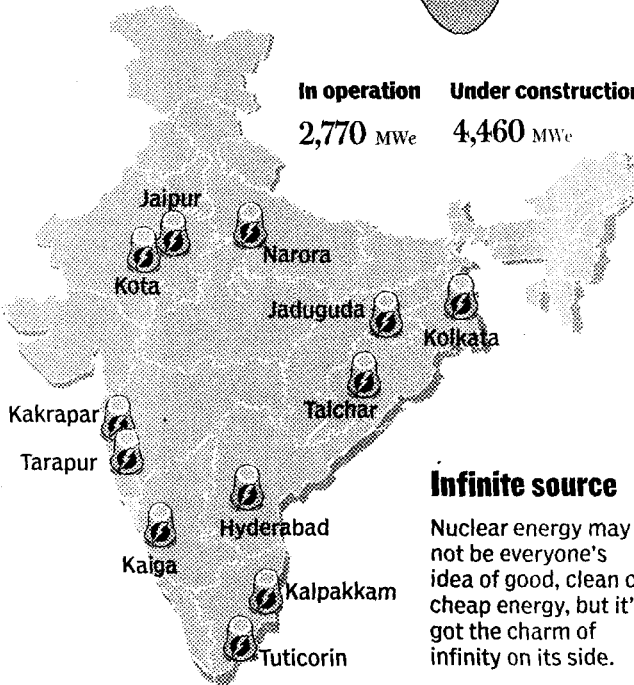
Why we need nuclear energy

India consumed 529013 million kilowatt-hours of electrical energy in 2001-02. In the coming years, this will go up sharply. Resources are limited.

POWER MIX Percentages of our country's power that come from various sources. Thermal tops the list with 70.



Nuclear power plants in India



Infinite source

Nuclear energy may not be everyone's idea of good, clean or cheap energy, but it's got the charm of infinity on its side.

Atomic Clock

1948

India establishes Atomic Energy Commission for exploration for uranium ore.

1953

President Eisenhower offers access to atomic technology for civilian use

1956

India completes negotiations to build 40 megawatt Canadian-Indian Reactor

1964

First plutonium reprocessing plant begins operation at Trombay.

1969

First nuclear power plant at Tarapur in Maharashtra starts commercial operation.

1976

Soviets become India's supplier of heavy water. Canada halts nuclear cooperation.

Graphic: SANJAY KAPOOR

আত্মসমর্পণ নয়, ফের বোঝালেন মনমোহন

নয়াদিব্লি, ৩ অগস্ট: আমেরিকার সঙ্গে চুক্তি নিয়ে সংসদে বাম এবং বিজেপির সাঁড়াশি আক্রমণ সামাল দেওয়ার চেষ্টা করলেন প্রধানমন্ত্রী মনমোহন সিংহ। দেশের স্বাধীন পরমাণু নীতি অক্ষুণ্ণ রাখার কথা বলে তিনি যেমন বিজেপির স্কেড প্রশমন করতে চেয়েছেন, তেমনই বামদেদের মন রাখতে বারবারে চিনের প্রশংসা করেছেন তিনি।

আমেরিকার সঙ্গে সহযোগিতার কিছু বিষয় নিয়ে তাদের আপত্তি যে অটুট আছে, তা তাঁরা সংসদেই বৃষ্টিয়ে দেবেন বলে আগেই জানিয়েছিলেন বামেরা। আর এ বিষয়ে নিশ্চিন্দা প্রস্তাব আনা থেকে বিরত হলেও বিরোধিতার জায়গাটি পুরোপুরি বামদেদের ছেড়ে দিতে স্বভাবতই রাজি নয় বিজেপিও। সেই মতো সংসদে আজ সরকারের সহযোগী বামদেদের সঙ্গে প্রায় একই সুরে গলা মেলান বিজেপি শীর্ষ নেতৃত্ব। আমেরিকার কাছে দেশের স্বার্থ বিকিয়ে দেওয়ার অভিযোগ তোলেন। এই অভিযোগ উড়িয়ে

প্রধানমন্ত্রী আবার বলেন, “পরমাণু কর্মসূচির কোনও স্কেট্রেই ভারত আমেরিকার কাছে আত্মসমর্পণ করেনি।” ভারত চিনের বিরুদ্ধে জোট বাঁধার জন্যও আমেরিকার সঙ্গে ঘনিষ্ঠতা বাড়াচ্ছে না।

এ দিন বিতর্ক শুরু করেন প্রাক্তন প্রধানমন্ত্রী অটলবিহারী বাজপেয়ী। অসুস্থ থাকায় বসেই লিখিত বক্তৃতা পড়েন। পরমাণু চুক্তি নিয়ে জাতীয় বিতর্কের দাবি তুলে বলেন, “প্রধানমন্ত্রীর আমেরিকা সফরের পরে জাতীয় নিরাপত্তার উপরে কোনও ‘পরোক্ষ শর্ত’ চাপিয়ে দেওয়া হচ্ছে কিনা, তা দেখা দরকার।” পরমাণু কর্মসূচিতে কোনও পরিবর্তন করা হয়েছে কি না তা-ও সরকারকে স্পষ্ট করতে বলেছেন বাজপেয়ী। আর বামেরা বিতর্ক শুরু করেন বিজেপি-র ‘আমেরিকা ঘেঁষা’ বিদেশনীতি অনুসরণ করার জন্য সরকারকে দুখে। সিপিআই

নেতা প্রবোধ পাণ্ডা বলেন, “ওই পরমাণু চুক্তির ফলে ভারত আন্তর্জাতিক ক্ষেত্রে ‘আমেরিকার ছোট শরিক’-এ পরিণত হয়েছে।” প্রধানমন্ত্রীকে কটাক্ষ করে সিপিএম নেতা রূপচাঁদ পালের মন্তব্য, “মনমোহন তাঁর সফরের সাফল্যের কথা বলছেন। কিন্তু আমেরিকা তো মাত্র কিছু ক্ষেত্রে নিষেধাজ্ঞা তুলেছে। মিত্র ব্রিটেন তাঁর সফর চলাকালীনই জানিয়েছে, ভারতের উপর নিষেধাজ্ঞা আগের মতোই বহাল থাকবে।”

বাজপেয়ীর অভিযোগ, আমেরিকা ভারতকে পরমাণুশক্তিধর দেশ হিসাবে স্বীকৃতি দিয়েছে বলে যা বলা হচ্ছে, তা ঠিক নয়। এর উত্তরে মনমোহন বলেন, ভারত পরমাণু প্রসাররোধ চুক্তিতে সই করেনি, কিন্তু আমেরিকা যে সব সুযোগসুবিধা দিচ্ছে, তা স্বীকৃতি দেওয়ারই সামিল।

সামরিক এবং অসামরিক পরমাণু কর্মসূচির বিভাজন করা বেশ জটিল

পরমাণু-নীতি

বিষয় এবং তা করতে গিয়ে দেশের সামরিক পরমাণু প্রকল্প আমেরিকার নজরদারিতে চলে আসতে পারে বলে আগেও আশঙ্কা প্রকাশ করেছে বিজেপি। আজও বাজপেয়ীর বক্তৃতায় তার ব্যতিক্রম হয়নি। কিন্তু প্রধানমন্ত্রীর জবাব, এ নিয়ে চিন্তার কারণ নেই। সামরিক ও অসামরিক পরমাণু কর্মসূচির বিভাজনের প্রসঙ্গটি নিয়ে তিনি দেশ ও বিদেশে বিশেষজ্ঞদের সঙ্গে আলোচনা করেই এগিয়েছেন। এ বিষয়ে দেশের স্বার্থ ক্ষুণ্ণের কোনও প্রসঙ্গই ওঠে না তার উদাহরণ দিতে গিয়ে মনমোহন জানান, আন্তর্জাতিক পরমাণু শক্তি কমিশনের চেয়ারম্যানের অনুমোদন ছাড়া তিনি ওই চুক্তি স্বাক্ষর করতে না চাওয়ায় যৌথ বিবৃতি দিতে প্রায় ১৫ ঘণ্টা দেরি হয়। তাঁর দাবি, আমেরিকা নিষেধাজ্ঞা তুলে নেওয়ার ফলে আগামী ১০ থেকে ১৫ বছরে ভারত ৩০ থেকে ৪০ হাজার মেগাওয়াট পারমাণবিক বিদ্যুৎ উৎপাদন করতে পারবে।— পি টি আই

ANADABAZAR PATUKA

পরমাণু প্রশ্নে একতরফা আপস নয়, বিবৃতি মনমোহনের

গণমাণ্ডল্য ৩৪৭ - *Michael Emery Paris*

স্টাফ রিপোর্টার, নয়াদিল্লি, ২৯ জুলাই: পরমাণু প্রশ্নে ভারতের স্বার্থ বিকিয়ে দেননি, সংসদে দাঁড়িয়ে প্রধানমন্ত্রী মনমোহন সিংহ এই আশ্বাস দেওয়ার পরেও বাসেবা জানিয়ে বলেন যে তাঁদের আপত্তিগুলো এখনও অটুট। সংসদে আজ তাঁর মার্কিন সফর নিয়ে বিবৃতিতে প্রধানমন্ত্রীর মূল বক্তব্য ছিল, আমেরিকার সঙ্গে পারস্পরিক সহযোগিতা গড়ে তুলে প্রতিরক্ষা প্রশ্নে ভারতের স্বাধীন নিয়ন্ত্রণই জোরদার করার চেষ্টা হয়েছে। আমেরিকা যদি কথা না রাখে, তা হলে ভারতও প্রতিশ্রুতি রক্ষায় দায়বদ্ধ নয়।

তাঁর সফরের মধ্যেই মনমোহনের পরমাণু-নীতির তীব্র বিরোধিতায় সরব হয়েছিল বিজেপি। বাম দলগুলি একটু সময় নিয়ে জানায়, তাদেরও কিছু বিষয়ে মৌলিক আপত্তি রয়েছে। সংসদে মনমোহনের বিবৃতির দিকে তাকিয়েছিল সব পক্ষই। মনমোহনের আজকের বক্তব্য জুড়ে ছিল পরমাণু প্রশ্ন। বিরোধীদের সমালোচনার জবাব দিতে

গিয়ে আজ ফের তিনি বলেছেন, জাতীয় স্বার্থ বিদ্যুত হতে পারে, এমন পথে কখনওই হটবে না সরকার।

তবে বাসেবা এতে খুব আশ্বস্ত হয়েছেন বলে ইঙ্গিত নেই। সীতারাম ইয়েচুরি বলেই দিয়েছেন, যা বলার তারা সোমবার সংসদে বলবেন। তাঁদের আপত্তিগুলো রয়েছেই। তা ছাড়া, মার্কিন কংগ্রেস এবং পরমাণু শক্তি সরবরাহকারী গোষ্ঠী (এনএসজি) যতক্ষণ না মনে নিচ্ছে, ততক্ষণ মার্কিন জ্বালানি-সহ অন্যান্য সহযোগিতা নিয়ে নিশ্চিত না হওয়াই ভাল। এবং নিশ্চিত না হয়ে পরমাণু প্রশ্নে কোনও দায়বদ্ধতা স্বীকার করা সরকারের উচিত হবে না।

প্রধানমন্ত্রীর বিবৃতিতে অসম্ভব বিজেপি জানিয়েছে, পরমাণু প্রশ্নে দেশের স্বার্থ বিকিয়ে দেওয়া হয়েছে বলেই তারা এখনও মনে করছে। এ ব্যাপারে সোমবার তারা পরবর্তী কৌশল ঘোষণা করবে।

মনমোহন আজ বলেন, কৌশলগত স্বার্থ নিয়ে আমেরিকার সঙ্গে কোনও

আপস করা হয়নি। সামরিক পরমাণু কর্মসূচিতে ভারতেরই 'অবাধ, পূর্ণ ও স্বাধীন' নিয়ন্ত্রণ থাকছে। অসামরিক ক্ষেত্রে যে ভারত-মার্কিন সহযোগিতার কথা হয়েছে, তারও মূল ভিত্তি হল 'শর্তসাপেক্ষ পারস্পরিকতা'।

'মার্কিন প্রশাসনকে তাদের শর্ত পূরণ করতে হবে। আমরা মোটেই এক তরফা এগোব না। ভারতের পদক্ষেপ প্রতিটি পরে, অন্য পক্ষ কী করছে, তার সঙ্গে তাল মিলিয়ে চলবে।' এ বার মার্কিন সফরে মনমোহন পরমাণুশক্তির দেশ হিসাবে ভারতের স্বীকৃতি আদায় করেছেন। কিন্তু বিজেপি প্রথম থেকেই সামরিক ও অসামরিক পরমাণু



ক্ষেত্রগুলি আলাদা করা ও অসামরিক ক্ষেত্রগুলি আন্তর্জাতিক পরমাণু শক্তি সংস্থার (আই এ ই এ) কাছে উন্মুক্ত করার প্রস্তাবের বিরোধিতা করেছে। ভারতকে যথেষ্ট দায়িত্বজনসম্পন্ন দেশ বলে স্বীকার করে নিয়েছে। তাঁর আশা, এত দিন ভারতের পরমাণু শক্তি প্রকল্পে জরুরি প্রযুক্তি আন্তর্জাতিক বাজার থেকে সংগ্রহে যে নিষেধাজ্ঞা ছিল, এ বার তার অবসান হবে।

আজকের পরেও বাম দলগুলি কিন্তু তাদের অবস্থান থেকে সরছে না। বিজেপির বক্তব্যকে 'জঙ্গি দেশপ্রেম' বলে খারিজ করে ইয়েচুরি আজ বলেন, বিজেপি পরমাণু অস্ত্রের পক্ষে। কিন্তু বাসেবা মনে করেন, পরমাণু ক্ষেপণাশ্র-প্রতিরক্ষা কর্মসূচিতে উৎসাহ দেখানো ভারতের নীতির বিরোধী। আর, অসামরিক পরমাণু সহযোগিতা আসলে পরমাণু গবেষণার গোপন তথ্য ফাঁস হওয়ার রাস্তাই প্রশস্ত করবে। উপরন্তু মার্কিন তরফে যে সব আশ্বাস দেওয়া হয়েছে, তা বাস্তবায়িত হতে

মধ্যেই গোটা ব্যাপারটা খেমে থাকবে না। প্রধানমন্ত্রী মনে করিয়ে দেন, ওয়াশিংটনে যৌথ বিবৃতিতে আমেরিকা অত্যধিক পরমাণু-প্রযুক্তি ব্যবহারে ভারতকে যথেষ্ট দায়িত্বজনসম্পন্ন দেশ বলে স্বীকার করে নিয়েছে। তাঁর আশা, এত দিন ভারতের পরমাণু শক্তি প্রকল্পে জরুরি প্রযুক্তি আন্তর্জাতিক বাজার থেকে সংগ্রহে যে নিষেধাজ্ঞা ছিল, এ বার তার অবসান হবে।

আজকের পরেও বাম দলগুলি কিন্তু তাদের অবস্থান থেকে সরছে না। বিজেপির বক্তব্যকে 'জঙ্গি দেশপ্রেম' বলে খারিজ করে ইয়েচুরি আজ বলেন, বিজেপি পরমাণু অস্ত্রের পক্ষে। কিন্তু বাসেবা মনে করেন, পরমাণু ক্ষেপণাশ্র-প্রতিরক্ষা কর্মসূচিতে উৎসাহ দেখানো ভারতের নীতির বিরোধী। আর, অসামরিক পরমাণু সহযোগিতা আসলে পরমাণু গবেষণার গোপন তথ্য ফাঁস হওয়ার রাস্তাই প্রশস্ত করবে। উপরন্তু মার্কিন তরফে যে সব আশ্বাস দেওয়া হয়েছে, তা বাস্তবায়িত হতে

এ বিয়ে মার্কিন কংগ্রেসই এর পেরি। এ বিয়ে মার্কিন কংগ্রেসই একাধিক নয়। ফলে সিপিএম এ নিয়ে কিছুটা 'না আঁচালে বিশ্বাস নেই' নীতি নিয়ে চলার পক্ষপাতী। ইয়েচুরি বলেন, তাঁর বিশ্বাস, মনমোহনও তাই-ই চান।

অন্য দিকে, বুশের সঙ্গে যৌথ বিবৃতিতে মনমোহন আমেরিকাকে 'গণতন্ত্রের ধজাধারী' বলে প্রশংসা করায় যথেষ্ট ক্ষুব্ধ ছিলেন বাসেবা। মার্কিন নাশনাল প্রেস ক্লাবে মনমোহনও

বলেছিলেন, ইরাক যুদ্ধ উল সিদ্ধান্ত। কিন্তু ইরাকে গণতন্ত্র ফেরানোর কাজে পাশে দাঁড়াতে আপত্তি করেননি। গণতন্ত্রের প্রশ্নে ভারত-মার্কিন মিত্রতা নিয়ে আজও মনমোহন কিছু বলেননি। ফলে এ ক্ষেত্রেও বাম-বিরোধিতা থেকে যাচ্ছে। ভারত-মার্কিন ঘনিষ্ঠতা নিয়ে অবশ্য কংগ্রেসের ভিতরেও প্রশ্ন আছে। আজ দলের কর্মসূচিমিত্র বৈঠকে অনেকে প্রশ্ন তোলে, আমেরিকার সঙ্গে এই সম্পর্ক অন্যান্য মিত্ররাষ্ট্রগুলির সঙ্গে সম্পর্কে বিরূপ প্রভাব ফেলবে কি না। মনমোহন তাঁদের আশ্বস্ত করেন।

Dispelling the Spooks about NUKES

Nuclear energy boom



ILA PATNAIK

Gained In Translation

• Is nuclear energy a viable source of electricity?

Globally, nuclear energy accounts for 16 per cent of electricity generation. But there are some countries which have intensively gone nuclear, such as Lithuania (80 per cent of generation is nuclear) and France (78 per cent).

• What is the importance of nuclear energy in India?

In India, nuclear energy accounts for only 3.7 per cent of electricity generation. India today has 15 nuclear reactors with an installed capacity of 3,310 MW. There are plans to go to 20,000 MW by 2020. By comparison, China has set a target of 40,000 MW by 2020.

Over many decades, India has periodically made ambitious plans of dramatically increasing nuclear generation. But these plans have not materialised, despite massive expenditures. India's task is harder because we have limited Uranium reserves, and have thus far been prevented from buying uranium in the world market.

• What are the strategic dimensions of energy consumption?

India faces important political and strategic difficulties associated with reliance on imported crude oil. Within five to 10 years, as much as 90 per cent of India's oil consumption might be imported. To the extent that nuclear generation goes up, the overall energy mix will shift in a direction that reduces India's political and strategic risks associated with consuming imported crude oil.

At the same time, there are also strategic dimensions to going nuclear. India does not have access to the best reactor design used in electricity generation, which is the "Pressurised Water Reactor" (PWR) technology. PWR is the commonest type of reactor worldwide, with 230 reactors in use today.

Even if India could buy PWR reactors from Western vendors, India does not have Uranium ore. Moreover, India does not presently have plants doing enrichment from 1 per cent U-235 (found in nature) to the 4 per cent level required for the PWR reactor.

• What are the logistics?

The physical size of raw material requirements is remarkably puny. A 1,000 MW plant running at 80 per cent capacity utilisation consumes just 22.2 tonnes of fuel per year.

India does not yet know how to make the large state-of-the-art reactors that are being used worldwide, which enjoy economies of scale and hence have the best cost structure. The typical PWR reactor worldwide ranges from 900 MW to 1500 MW. For a comparison, in March 2005, India commissioned a 540 MW plant at Tarapur.

Finally, of course, there is the generic issue that global vendors have made hundreds of reactors, while Indian engineers have only made a few, so, there is an inevitable technological gap that comes from inexperience. While India can claim an important achievement of knowing how to make nuclear reactors, that is very different from making the safest and cheapest reactors in the context of a competitive market.

• What is the economics of nuclear power?

The economic viability of nuclear generation could be fundamentally altered if we are able to switch from domestically produced reactors to global quality. On the other hand, if our scientists and engineers are able to rapidly learn the game, we could be exporting reactors. In either event, de-

isions about nuclear deployment should be rooted in commercial judgments about obtaining the cheapest prices through global competition.

India can solve these twin problems, of access to superior reactors and of access to uranium, through strategic initiatives aimed at addressing the concerns of global powers who are focused on non-proliferation.

• What's India's new nuclear deal with the US?

The nuclear energy agreement with the US commits India to separate military and civilian nuclear facilities, like the nuclear weapon states do. India will provide the International Atomic Energy Agency a list of civilian facilities and allow inspection of these civilian facilities placing them under safeguards, in return for which India will get access to nuclear technology, equipment and fuel.

The essence of this deal is to separate out nuclear weapons work from electricity generation. India will be fully able to produce nuclear bombs — if deemed necessary — using one or two secretive, non-commercial laboratories. But the bulk of nuclear applications in electricity generation will be treated like an ordinary industry, with a focus on commercial viability and safety. This decoupling of nuclear applications in electricity generation will make it possible to do decision-making on electricity generation purely on commercial considerations.

• How do the costs of nuclear and coal power compare?

When comparing nuclear against coal-fired plants, a comprehensive estimation of all life-cycle costs should be conducted. This should include costs of extraction and handling of fuel, capital costs, as well as costs associated with safety, chemical or radioactive

pollution and the processing of waste. Normal market processes suffer from improper and incomplete reckoning for many of these aspects. For example, coal resources in the earth, or uranium resources in the earth, are generally not priced correctly.

Particularly in India, commercial principles are not being used in the computing the capital cost of nuclear plants. It is not easy to distinguish the public good of R&D by state-run labs, from the clearly visible financial

structure of a generation plant. By contrast, coal plants are now being put up by the private sector, and their financial structure is visibly identifiable and can be judged based on commercial considerations.

Coal-fired plants generate a very high degree of pollution, including radioactive gases, dust and particularly CO₂. Coal-fired thermal plants often generate more radiation than nuclear-fired thermal plants. And if global warming becomes a serious issue, and coal-fired thermal plants have to pay in order to pollute, their costs would go up considerably. Nuclear plants should be charged the full cost of their waste handling, which requires facilities designed for 50,000 years of isolation of the waste.

• What are the safety issues associated with nuclear generation?

The Chernobyl disaster is high on the minds of anyone thinking about nuclear electricity. After the 9/11 attacks, there has been a careful exploration, worldwide, of threats such as truck bombs or 747 planes crashing into nuclear reactors. It is now believed that these threats are adequately addressed by safety procedures.

The Indian nuclear establishment is relatively inexperienced in safety issues, and fairly non-transparent. There may be much to gain by adopting international practices on questions of safety.



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"No compromise on strategic assets"^(u)

India will retain "unrestricted, complete" control over military nuclear programme

J. Nuclear Energy Policy

H0-1

Sandeep Dikshit

NEW DELHI: Prime Minister Manmohan Singh told Parliament on Friday that the Indo-U.S. agreement on nuclear cooperation would not hinder the country's weapons programme. The commitment to open up civilian nuclear plans for international inspection would be conditional on and reciprocal to the United States keeping its side of the bargain.

"Before voluntarily placing our civilian [nuclear] facilities under the International Atomic Energy Association safeguards, we will ensure that all restrictions on India have been lifted. Our autonomy of decision-making will not be circumscribed in any manner. ... The defence and security interests of our country are our highest priority and will continue to remain so."

"Not taken for a ride"

Dr. Singh addressed criticism on two aspects of his U.S. visit. India would not be taken for a ride and, secondly, he could not be faulted on the patriotism count. "I can assure the House that we have never made, nor will we make, any compromises insofar as our fundamental and strategic needs are concerned. Our inheritance gives us confidence, our experience gives us courage, and our belief gives us conviction to assert today that our nation stands on the threshold of an even better future."

On the nuclear weapons programme, he said: "Our strategic assets are a source of national security and will continue to be so and remain outside the scope of our discussions with any ex-



Manmohan Singh

ternal interlocutors."

There was nothing in the joint statement that would limit or inhibit the country's nuclear weapons programme. Should India feel that its interests were being overlooked, it would not be pressed to move ahead in a pre-determined manner. India would retain "unrestricted, complete and autonomous" control over the military aspect of its nuclear programme.

Dr. Singh declared that India remained committed to the three-stage nuclear programme, comprising pressurised heavy water reactors, fast breeder reactors and thorium reactors. "Our scientists have done excellent work and we are progressing well on this programme as per the original vision. We will build on this precious heritage."

"What we have now agreed with the U.S. should open up the possibility of our being able to access nuclear fuel, reactors and other technologies from outside

to supplement our domestic efforts" and enable India to increase nuclear power production rapidly to meet growing energy needs. It would not only diversify the country's energy sources but also reduce its dependence on fossil fuels. Thus, it would address global concerns for cutting down on greenhouse gas emissions.

Development options

On criticism of the joint statement, he said the sole purpose of his visit was to widen the country's development options. Apart from the joint statement on civilian nuclear energy, discussions with senior members of the Bush administration helped to underline the advantages of long-term collaboration in knowledge-based industries and services as well as promote India as a competitive destination for investment by the U.S. business community. The two sides also agreed to launch an agriculture initiative that would promote a new generation of research and practices to build on the green revolution.

Joint research

The science and technology framework agreement would lead to more joint research and training, and closer ties in space exploration, satellite navigation and launch.

Dr. Singh also explained India's case for expanding the United Nations Security Council and its admission as a permanent member. Though the U.S. had not endorsed India's position, he felt, the joint statement reflected its growing recognition.

JUL 2007

THE HINDU

Singh shows N-confidence

Statesman News Service

NEW DELHI, July 29. — Cheered by the Treasury Benches, a confident-sounding Prime Minister today sought to silence his detractors in the BJP and the Left in Parliament, declaring that there was no question of "selling national interests" in the nuclear pact with the USA. Dr Manmohan Singh also iterated India's credential as a responsible nuclear power and its independent status in the global polity in a statement on his recent visit to the United States.

Repeatedly cheered with thumping of desks by UPA members, the Prime Minister reassured both Houses that the nuclear pact with the USA did not compromise national security. The basis of the civil nuclear cooperation was "a clear recognition of India as a responsible nuclear power with impeccable record in nuclear non-proliferation," he declared. "Our commitments under the nuclear pact will be dependent on reciprocal fulfillment by the USA of its side of the bargain," he added.

His somewhat belaboured assertion was a clear allusion to doubts and fears expressed by the BJP and the Left on the "unseen ramifications" of the N-pact on national security. "There is nothing in the joint statement that inhibits or hinders our strategic nuclear weapons programme," Dr Singh asserted and said: "Security interests of our country are our highest priority. We expect the same rights and responsibilities as other nuclear powers. There is nothing in this joint statement that amounts to limiting or inhibiting our strategic nuclear weapons programme over which we will retain unrestricted, complete and autonomous control."

PM meets Congress brass

Dr Manmohan Singh, today formally briefed the Congress top brass about the "achievements" of his recent trip to the US, hours after he made a statement in both Houses of Parliament on the issue.

THE STATESMAN

Pragmatism where necessary

The nuclear cooperation bargain with the United States of America is set to divide the Indian polity. Both the prime minister and the opposition are preparing for a stormy debate in parliament.

It is the government of India's case that the obligations it has accepted are no different from those of other nuclear weapon powers. India has committed to four broad responsibilities: separation of its civil and military nuclear facilities; filing a declaration of its civilian facilities with the International Atomic Energy Agency; voluntarily placing its civilian facilities under IAEA safeguards; and signing an additional protocol with respect to the civilian facilities. Are these the same as those accepted by other nuclear weapons powers?

The separation of civilian and military nuclear facilities is not necessary for legitimately recognized nuclear weapons powers. France has produced substantial quantities of military plutonium from civilian power reactors at Chinon, St Laurent, Marcoule (now under closure) and Bugey. The United Kingdom built the Calder Hall and Chapelcross nuclear power stations to produce plutonium and tritium for weapons as well as electricity. There is no separation of civilian and military programmes in Russia and China.

Only the US has made this separation. Its civilian nuclear facilities are in the private sector and the military programme is in government hands, with little or no interface between them. For producing tritium for bombs, the US department of energy uses Tennessee valley authority's Watts Bar Nuclear Plant and Sequoyah nuclear plant, Units 1 and 2 as the preferred facilities after closing down its own production facility in South Carolina in 1998. Even in the US then, the civilian and military separation is not total.

India has to separate its programmes because the international community suspects that fissile material from civilian reactors is used for bombs. Nuclear reactors produce both electricity and fissile material. Using the fissile material for bombs is OK if the nuclear material and the technology used are indigenous.

If either is imported then every gram of nuclear material going in and coming out of the reactor has to be accounted for with the IAEA. India agreed to this earlier for Tarapur, Rajasthan and Kudankulam Atomic Power Stations based on foreign technology.

India has now to separate its civilian and military nuclear facilities with a firewall — not permitting any transfer of resources, material or human, between the two. It would also file a declaration regarding this with the IAEA. The recognized nuclear weapon powers do not have to do so — their military programmes are

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BHARAT BHUSHAN



Question of good faith

considered legitimate.

India will take a "voluntary" decision to put its civilian facilities under IAEA safeguards. This means accepting transparent and verifiable accounting procedures for nuclear material used. What do the nuclear weapons powers do in this regard? Both France and UK have agreed to limited safeguards. The US has also allowed only 15 out of 105 reactors to come under IAEA safeguards. But even these inspections have stopped because the IAEA pleaded lack of funds.

Accepting safeguards has to be voluntary for India because it is not a signatory to the nuclear non-proliferation treaty. There is no freedom of choice involved. Unless India accepts this voluntarily, there is no legal framework within which its civilian facilities can be subjected to IAEA safeguards. India's responsibilities and practices are, therefore, different from that of the nuclear weapon powers.

India has also agreed to sign an additional protocol with the IAEA about its civilian facilities. The additional protocol that the nuclear weapon powers sign is under NPT obligations — any export of nuclear material is to be reported to the

IAEA, which then puts the importing country under safeguards. In the case of Iran, an NPT signatory, the proposed additional protocol is more stringent — the IAEA seeks to inspect declared as well as suspect facilities. In India's case, the additional protocol will give the IAEA the right to inspect all civilian facilities. Once again, the additional protocol signed by India would be different from that of the nuclear weapon powers.

It is disingenuous then to claim that India's responsibility and practices will be the same as that of other nuclear weapon powers.

The upside of the deal, however, is that India can buy nuclear fuel and reactors internationally. India's nuclear power programme is thwarted by non-availability of adequate fuel. Our uranium resources can support only 10,000 MWe (Megawatt Electric) of nuclear power generation. If India wants to push this to 20,000 MWe, then

clearly it needs to buy both nuclear fuel and reactors internationally.

But what of the downside? To begin with, building a firewall between the civilian and military programmes may not be easy — similar experience with India's space and missile pro-

grammes has adversely affected the latter. The R&D programme will be affected because it is difficult to say that the outcome would have only civilian uses. Every ounce of nuclear material taken out for research from civilian reactors would have to be reported to the IAEA. If the research outcomes are also to be reported, then that might lead to proprietary issues.

Any suspicion of an interface between the civilian and military programmes will invite inspections. Military reactors, being dual-use, will produce power as well as nuclear material for weapons, but feeding their power into the grid may be problematic.

Civilian facilities being used for fissile material production would no longer be available for strategic purposes. This would in effect cap India's fissile material production even before the fissile material cut-off treaty is negotiated.

This suits the US. It was not satisfied with India putting only foreign supplied power plants — Tarapur, Rajasthan and Kudankulam — under safeguards. It knows that India's nuclear programme — both military and civil — has not stabilized. So it is allowing monitored growth of the civilian programme, but restraining the strategic one.

The question that would divide the nation is whether India should have compromised the core of its national security for access to fuel and civilian technology. Votaries of autarkic development argue that the new uranium mines can be made operational in the next two years and India's fast breeder reactors would come of age soon. FBRs produce fuel for nuclear power plants by using the spent fuel from existing pressurized heavy water reactors. The question then is: Why did India negotiate conducting itself as if it were in a major crisis?

Lastly, Manmohan Singh's critics would claim that he has unified the negotiating positions of all our prospective nuclear partners. Once India has agreed to the maximalist demands of the US, why should France and Russia settle for anything less? Instead of increasing its negotiating space, the government may have shrunk it.

The government's repeated statements on reciprocal obligations suggest that somehow the US is expected to deliver first. However, unless President Bush can show that India is fully on board on the non-proliferation agenda he cannot get the US Congress to change laws or get concessions from the Nuclear Suppliers Group. The US does not have to show good faith. India has to — and before Bush visits in January 2006. There is no timeline for Bush himself.

Clearly, a wide-ranging parliamentary debate is necessary to convince all that the agreement is indeed to India's advantage.

Accepting safeguards has to be voluntary for India because it is not a signatory to the NPT. There is no freedom of choice involved'

India is to take on US-defined obligations that no other nuclear power has accepted

Go forth and prosper ✓

BY BRAHMA CHELLANEY

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MORE IMPORTANT than George W. Bush's ambitious promise to end the nuclear embargo against New Delhi — a step that must win the approval of US Congress and America's allies — is the political message he has delivered loud and clear: the US, reversing more than three decades of punitive approach against India, now welcomes this nation as a 'responsible' State that should join in international nuclear commerce. That message symbolises the positive transformation of the Indo-US relationship.

While that message has received wide attention, the reversal of India's long-standing nuclear policy and approach to secure the new US support has escaped close scrutiny. The US has shifted its stance only on export matters, but India's reversal is linked to its nuclear security and energy. By concluding a last-minute deal, with his own cabinet not in the picture, the PM has spurred controversy over his commitments to a foreign power on a programme that epitomises India's pride and independence.

The phraseology underlines the unequivocal nature of the Indian commitments as opposed to Bush's promise to 'work with' Congress and US allies to relax export controls. Manmohan Singh does not hedge his assurances by pledging to 'work with' Parliament and political leaders to bring about changes on the principle that has guided Indian nuclear policy — consensus. He employs the term, 'reciprocally', once, only to cast off reciprocity in the crucial next paragraph on implementation.

The communiqué sets out a clear roadmap for India to follow, with the PM committing to implement his "assurance" in a phased manner "in the months ahead" and to review the progress when "the president visits India in 2006". Since Bush's trip is likely in early 2006, India has six months or so to begin implementing a roadmap that will fundamentally restructure its nuclear policy and programme. Besides the tacit timetable, the communiqué underlines India's acceptance of the US as its guardian angel.

The government's main line of defence is that India is to assume the same duties and rights as the other nuclear powers, "no more and no less". This is, at best, self-delusion



and, at worst, a wilful attempt to pull wool on public eyes. India has agreed to legal commitments on wide-ranging inspections and multi-lateral-regime regulations knowing that it cannot gain lawful status as a nuclear-weapons State or the rights conferred on such a power.

The deal does not shield India from discriminatory obligations. In fact, the PM has willingly committed India to take on — under US guardianship — obligations that the other nuclear powers have not adopted. Consider the following:

■ First, India is to begin "identifying and separating civilian and military nuclear facilities and programmes in a phased manner and filing a declaration regarding its civilian facilities with the International Atomic Energy Agency". In China, Russia and France, the civilian and military nuclear programmes overlap, with no effort underway to separate the two. In Britain, the line is blurred. And even in the US, where commercial nuclear power plants are run by private companies and military facilities are State-controlled, not all civilian facilities and activities have been declared to the IAEA.

While all other nuclear powers began with dedicated military facilities before branching off to civil applications, India sourced its nuclear military capability from its civilian programme. Creating military-civil separation will cut the umbilical cord of sustenance to the still-nascent military programme. The national costs will far outweigh any gains in accessing foreign technology.

■ Second, India has agreed to "place voluntarily" all its civilian nuclear facilities under IAEA in-

spections. No nuclear power has done so in actual practice, because in majority cases there is not even the pretence of civil-military segregation. The US has symbolically opened its civil facilities to IAEA inspections while retaining an unfettered legal right, on national security grounds, to block access and shut out inspectors at will.

The five NPT-recognised nuclear powers, under voluntary accords, offer nuclear materials and facilities for IAEA inspections in name only. The IAEA, in return, carries out token inspections or, often, no inspections "to conserve resources" for inspections in the non-nuclear States. Currently, the IAEA lists a total of only 11 inspected facilities in these powers (none in Russia) out of the hundreds that exist.

India, with no legal rights as a nuclear power, will have to accept rigorous and expansive inspections on its civilian programme. Bush has promised to help change not the international law, the NPT, but US export-control law. Given Bush's falling popularity and depleting political capital, there is little certainty of India gaining even access to US commercial nuclear power technology of the kind that China enjoys today.

Like its voluntary extension of IAEA inspections at Tarapur after the expiry of the Indo-US pact under which the plant was built, India's voluntary opening up of all civilian sites will bring stringent inspections geared towards non-proliferation as in non-nuclear nations.

■ Three, India has also agreed to "sign and adhere to" the IAEA's controversial Additional Protocol. The Additional Protocol will bring India's entire civil nuclear fuel cycle

under outside monitoring, including uranium mines, thorium production and other feed material. This will impose onerous obligations, and could set back fast-breeder and thorium-cycle development.

The US has negotiated its own version of an Additional Protocol, inserting a sweeping national security exclusion that minimises the role of the IAEA. Yet, the Additional Protocol, signed in 1998, has not come into force — like the one initialled by Russia in 2000.

■ Four, in addition to agreeing to lend legitimacy to the NPT through voluntary acceptance of IAEA inspections and an Additional Protocol, India has pledged formal "adherence" to the rules of the very cartels that have traditionally targeted it — the US-led Nuclear Suppliers' Group and Missile Technology Control Regime. Bush has promised not to include India in these regimes but to "work with friends and allies to adjust" their export controls. In fact, Bush's top arms-control official, during a recent visit to New Delhi, questioned India's claim for inclusion on grounds that these regimes comprise NPT members serving the NPT. India would be the first nuclear power to adhere to the cartels' rules without being granted admission.

More broadly, by agreeing to take a series of tangible steps under US direction, India has handed the initiative to Washington, undermining its leverage and undercutting its diplomacy with other powers. Now any cooperation with Russia or France, for instance, will hinge on India meeting the benchmarks defined in the Washington communiqué. These benchmarks go beyond what the US had sought to impose during the initiation of the NSSP or the earlier Strobe Talbott-Jaswant Singh talks.

Rather than embark on a roadmap for which the PM has no national mandate, India should savour the deal for its potent message, not for a promise that Bush is unlikely to fulfil. If the PM means what he says, India should wait until Bush has persuaded Congress to amend the 1978 US Nuclear Non-Proliferation Act before New Delhi takes the first step to meet obligations to the extent honoured by the other nuclear powers in actual practice, and with the same rights as them — "no more and no less".

23 JUL 2006

THE HINDUSTAN TIMES

Swallowing some pride to win the nuclear game

K. Venugopal

BELYING HIS sedate and conservative visage, Prime Minister Manmohan Singh has cut a deal with the United States on the nuclear issue that none of his predecessors dared, or perhaps wished to, do. Bartering away the country's independence in nuclear policy-making has invariably meant courting domestic political strife; and, as a Congress leader, he would have thought but a hundred times before overturning a policy that was crafted by none other than Indira Gandhi, that lady of steel, who in 1974 stunned the world with nuclear tests at Pokhran, and incurred sanctions from the western world led by the U.S. So why would Dr. Singh have committed himself to opening up for international inspection all the civilian nuclear facilities, and limiting the country's military options?

What everyone has known for some time now is that the old Tarapur power station is running out of fuel. Built with U.S. assistance in the early 1960s, the 400 MWe plant is well past what was initially thought to be its lifespan. But it has been adjudged hale enough to trudge along, albeit at the lower capacity of 320 MWe, for some more years. Its diet of enriched uranium fuel has always come from overseas, but lately supplies have been uncertain with the U.S. and its friends in the Nuclear Suppliers Group unhappy with India's independent nuclear ambitions especially after the country tested five nuclear devices in 1998 and trumpeted its entry into the club of nuclear weapons powers.

What is less well known is that even the set of indigenous nuclear power stations is running short of fuel. Unlike the plant at Tarapur, these home-grown nuclear power stations use natural uranium, procured from the Jaduguda mines in

In bartering away the country's independence in nuclear policy-making, the trade-off Dr. Singh has attempted to secure is the prospect of a dramatic scaling up of nuclear power capacity.

Jharkhand. It was more than 20 years ago that Indira Gandhi switched on the first of these built on the sands of Kalpakkam, 60 km south of Chennai. If the Kalpakkam plant took more than a decade to build, rather than the four years granted these days, it was because of what she had ordered done at Pokhran and the consequent severance of technological cooperation from the U.S. and Canada. The ring-fenced Indian programme took time to find its feet, develop and fine tune the technology, and procure the uranium fuel and materials such as heavy water from local sources.

The penalty was not limited to a time over-run on debut. With pride swelled by the indigenous accomplishment at Kalpakkam, the Department of Atomic Energy had then announced that it would build up a capacity of 10,000 MWe by the year 2000. Setting stretch targets is a well-known management strategy, but this one proved to be excessively optimistic. Virtually every one of the stations set up did suffer delays in commissioning, and for varied reasons. Now five years into the new millennium, the power generating capacity achieved is just 3,310 MWe, and even this, it seems, is not being serviced fully by the Jaduguda mine. The Planning Commission noted last month in its Mid-Term Appraisal of the Tenth Plan that the load factor achieved by the nuclear power plants had come down

“primarily due to the availability of nuclear fuel because the development of domestic mines has not kept pace with addition of generating capacity.”

Pipeline running thin

It is perhaps the first official acknowledgement that the pipeline is running thin and may not be adequate to feed the existing power plants let alone new ones. It is true efforts were made over the past few years to open new mines. The atomic minerals division of the Uranium Corporation of India spotted a mine in Nalgonda district of Andhra Pradesh, from where it believed it could recover about 1,250 tonnes of uranium ore a day for the next 20 years. A couple of years ago, it announced plans to start mining over 400 hectares and to set up a uranium ore processing plant. The trouble was the mine was located close to reserve forests, and the processing plant just 6 km from a tiger reserve. Environmentalists and other vested interests quickly latched on to the sensitivity of the location; and the project is fighting grimly to win official clearance from the State's environment authorities. Without access to the mine, the atomic energy establishment will find it hard to service the 1,430 MWe of capacity that is due to be commissioned over the next two years and a half.

Such were the poor, unpromising cards that

Dr. Singh took with him to the negotiating table. Dr. Singh must have realised that without gaining a benevolent gesture from the U.S., slim were his chances of any other credible supplier stepping in to keep the Tarapur station churning. Again, he must have realised that abandoning the ambitious indigenous nuclear programme to its limitations was something the Government could not do, especially given the dramatic rise in global petroleum energy prices, and the sympathetic effect displayed by coal. On the contrary, there was a strong case actually to ramp up the capacity. While nuclear energy, that has remained insulated from these price shocks, supplies almost half the world's electricity — the share is over 70 per cent in many countries — it contributes less than three per cent to India's.

It is an irony that wind power capacity has overtaken the nuclear this year. Built with surprising zeal by private investors, wind farms have sprung up in many States adding up to a capacity of about 3,595 MWe. While it must be said that many of these farms generate their rated energy only for part of the year when wind speeds are high, and that in terms of total electricity spun out, nuclear energy is still ahead of wind power, the fact to acknowledge is that nuclear power has been paled, and has much to catch up with.

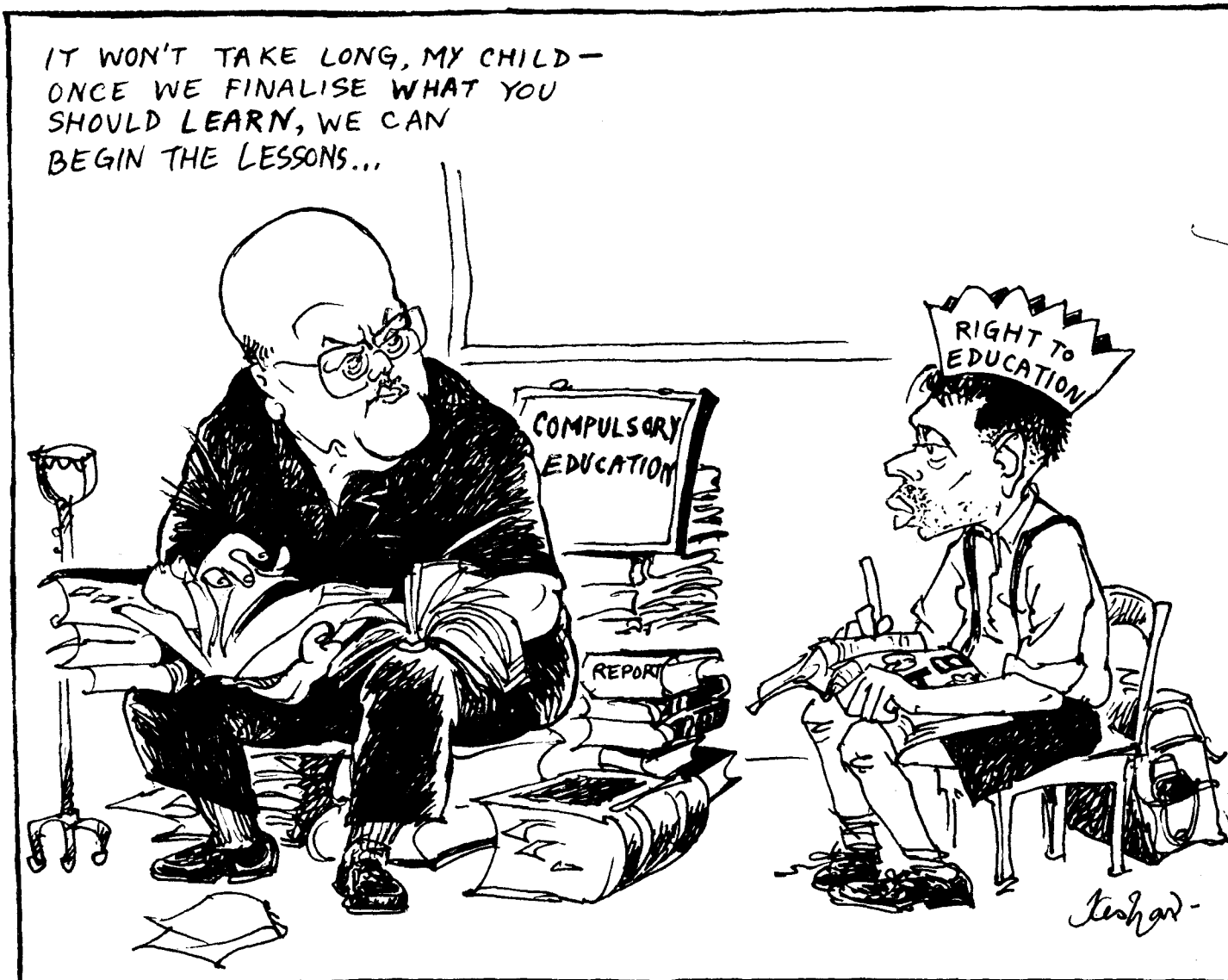
Was the U.S. promise of international help to secure continued supplies of enriched uranium fuel for the U.S.-built Tarapur plant and to ramp up the country's nuclear electricity programme the tipping point for Dr. Singh? What had he to give up in return? By keeping the wraps on the civilian nuclear plants all these years, India had the option to divert some of the spent uranium fuel for reprocessing into weapons-grade plutonium. The option was a qualified one though, for if a reactor at a power plant were to extract the full energy from a uranium bundle, it would leave the fuel unsuitable for the defence requirement. Once these plants were thrown open to international inspection, the capacity to produce weapons-grade plutonium would be restricted to the research reactors. That might crimp the pipeline that supplies material for nuclear deterrence. For the many that have had but a dim view of the deterrent effect of nuclear weapons, it would indeed be a virtuous turn of events.

The trade-off that Dr. Singh has attempted to secure is the prospect of a dramatic scaling up of nuclear power capacity. The Planning Commission believes that nuclear energy remains an important tool for “de-carbonising the Indian energy sector.” As indigenous uranium resources are limited, it says India must seek at least about 20,000 MWe of additional nuclear capacity on a turnkey basis, based on a competitive power tariff. That implies putting out a global tender.

The global nuclear power equipment industry has not exactly been busy in recent years. No new nuclear reactor has, for instance, been commissioned in the U.S. since 1996, and only last month President George W. Bush was urging Americans to start building nuclear power reactors again in a bid to reduce dependence on fossil fuels. For these companies, investing in India should be an attractive business opportunity, and the Indian Government will do well to seize the initiative once the regulatory and political hurdles are cleared in the U.S. and elsewhere. Invitations can go out not just to suppliers of natural uranium fuel for the stations set up and run by the Nuclear Power Corporation, but also to utility companies to build and operate plants that run on enriched uranium fuel. It would be preferable to let the investors know that they shall bear the risks of their business, whether political, technical or monetary. Finding fuel for a nuclear power plant should never again be the Government's problem.

Dr. Singh has raised the political stakes, preferred the economic advantages over the military, and even sold a bit of national pride. The question is whether he can deliver on the economics.

CARTOONSCAPE



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NPT
9. Meleer Energy Review

BHARAT BHUSHAN

New Delhi, July 27: The safeguards agreement and Additional Protocol that India will sign with the International Atomic Energy Agency (IAEA) will give a high degree of control over the country's civilian nuclear programme to the agency, experts believe. This follows from a nuclear bargain with the US.

While sources in the government have suggested that India would have flexibility in signing the Additional Protocol, experts, however, believe there will be little freedom to resist a strict regime of reporting and international inspection of nuclear activities.

The IAEA collects, monitors and verifies data relating to a country's nuclear programme to ensure that civilian nuclear facilities are not used for military purposes. But the interlocking between the two in India may be such that separating them may not be easy. India has, however, made such a bilateral commitment to the US. This will now be verified by the IAEA.

The control sought by the IAEA is mind-boggling. Its inspectors will have access to all parts of India's nuclear fuel cycle, including its uranium mines, fuel fabrication and enrichment plants, waste sites, as well as to any other location where nuclear material is

WHAT IS ADDITIONAL PROTOCOL? IAEA's extended inspections and verification activities are governed by the Additional Protocol.

Once India signs it, what happens?

India will have to give the IAEA information on:

- Location of nuclear fuel cycle-related R&D activities
- Description of each building on each site, including its use, and if not apparent from that description, its contents
- Location, operational status and the estimated annual production capacity of uranium mines, uranium ore concentration plants and thorium concentration plants

● Material not used for fuel fabrication but which is stored in quantities exceeding 10 tonnes for uranium and exceeding 20 tonnes for thorium within a nuclear location or outside it in quantities of 1 tonne if the aggregate exceeds 10 tonnes of uranium and 20 tonnes of thorium

● Locations outside the facilities where nuclear material is used in amounts of one kg or less

● General plans for a succeeding 10-year period (from agreeing to safeguards) relevant to development of nuclear fuel cycle, including

planned nuclear fuel cycle-related R&D

● Location of such R&D facilities

● Description of activities and the identity of person or entity carrying out the R&D, including sites identified by the IAEA where it considers such activities are being carried out

● Access to the IAEA for wide-area sampling of the environment (air, water, vegetation, soil, smears) at locations identified by the IAEA to draw conclusions on undeclared nuclear material or activities

This is an indicative list

ures are carried out by the IAEA. The first set comprises verifying the reports provided by a country on its declared nuclear material and activities. This is based on nuclear material accountability, nuclear containment and surveillance techniques, including cameras installed by the IAEA at the country's nuclear facilities. The IAEA can then carry out ad hoc, routine and special inspections as well as make safeguard visits to verify data.

or may be present". This may also entail separating uranium mines for civilian and military purposes, for example. Such are the stringent requirements of the IAEA's Additional Protocol that all nuclear R&D plans for the coming 10 years and personal details of researchers also have to be supplied.

The Additional Protocol only extends the safeguards agreement. Essentially, two kinds of verification meas-

The second set consists of "strengthening the IAEA's inspection capabilities". This is done through the Additional Protocol which complements the safeguards agreement. It gives "expanded rights of access" to the IAEA not only "to verify the non-diversion of declared nuclear material but also to provide assurances as to the absence of undeclared nuclear material and activities in a state".

As India is not a signatory

to the Nuclear Non-Proliferation Treaty (NPT), and IAEA safeguards normally follow as obligation under the NPT, the US is trying to create a half-way house for putting the civilian nuclear facilities in India under the safeguards. Non-nuclear weapon members of the NPT are prohibited from making nuclear bombs — the safeguards are meant to ensure precisely this — but India already has nuclear weapons. The Additional Protocol signed with the IAEA, therefore, may not exactly be the same as for the NPT countries. But will it be any less exacting?

Nuclear experts believe that the activities which the IAEA has specified in its safeguards and the Additional Protocol are extremely onerous. India, they claim, may not have the choice of accepting some and rejecting others. "Is India willing to cede this degree of control to the IAEA? And if not, how far is it willing to go? Do we really have any flexibility and if so how much?" asked a nuclear expert.

Yet another nuclear expert, who wanted a public debate on the agreement with the US, said India could not expect that the US would take a big step in its favour and not expect an equally big step in return. India will have to agree to all the safeguard regimes without any choice, he felt.

Some caveats on a constructive deal

There is bound to be a contentious debate on the bargain struck by India and the United States on nuclear energy cooperation and trade that is the most substantive part of the Joint Statement issued from Washington D.C. Unfortunately, this deal, like so much else in the realm of strategic affairs and foreign policy in recent years, including the Indo-U.S. defence framework agreement, has been sprung on the people of India — forsaking the method of democratic discussion and consensus-building in advance rather than after the deal is done. But the substance of the Indo-U.S. nuclear bargain, which has constructive potential for the non-military, peaceful side of India's nuclear energy programme and offers the prospect of the country coming out of its post-1974 isolation in the international nuclear energy arena, must not be missed in the name of criticising the method. ⁴⁰⁻¹⁰

Let us be clear about the nature and specifics of the bargain. For a start, it is conditional, with nothing guaranteed. It is also meant to be worked in phases and holds some imponderables. What precisely is on offer for India? It is obvious that President George Bush has broken away from long-term U.S. non-proliferation policy towards India. Recognising it as "a responsible state with advanced nuclear technology," he has committed himself to working to achieve "full civil nuclear energy cooperation with India as it realises its goals of promoting nuclear power and achieving energy security." Towards this end, he will seek agreement from the U.S. Congress to adjust domestic laws and policies. He will also work with friends and allies to adjust restrictive international regimes so that India can benefit from "full civil nuclear energy cooperation and trade." The policy relaxation has factored in "expeditious consideration of fuel supplies for safeguarded nuclear reactors at Tarapur." ^{9 Nuclear energy}

What is the 'price', the *quid pro quo*, the United Progressive Alliance Government has agreed to in the Joint Statement? Prime Minister Manmohan Singh has committed India "reciprocally" to segregating, "in a phased manner," the country's military and civilian nuclear facilities; "voluntarily" placing its civilian nuclear facilities under International Atomic Energy Agency safeguards; signing and adhering to an Additional Protocol with respect to civilian nuclear facilities; continuing the "unilateral" moratorium on nuclear testing; working with the U.S. to help conclude a multilateral Fissile Material Cut Off Treaty; continuing with stringent non-proliferation export control policies; and "harmonisation [with] and adherence to" the guidelines of the Missile Technology Control Regime and the Nuclear Suppliers Group. It is a formidable list of conditionalities accepted, but some of them must be recognised as the product of the interminable Jaswant-Talbot 'dialogue' during the six-year rule of the National Democratic Alliance Government.

Is the deal a net gain or loss for India? It is probably a loss from the standpoint of the hawkish votaries of India's post-May 1998 nuclear weaponisation, which derailed India's longstanding policy and twisted out of shape its independent character as well as its peace and disarmament orientation. If the deal means "capping" dangerous ambitions of developing India's so-called minimum credible deterrent, that 'loss' will clearly be to the benefit of the people of India and the region. The idea of 'dual-using' the unsafeguarded heavy water nuclear power reactors — actually 11 of 15 operational reactors — to make bombs and, in the meantime, generate power cost-efficiently, as a way of avoiding unduly expensive stockpiling, is so completely over-the-top as to qualify as Strangelovian. At a practical level, while exploitation of the plutonium produced by reprocessing the spent fuel of heavy water reactors to make nuclear weapons is technically feasible, the result will be low-yield, 'dirty' bombs. It is too much to believe that India will ever be in need of such stuff for 'deterrence' or 'second strike' or whatever.

In sum, the Manmohan-Bush nuclear deal is to be understood as a constructive, although clumsily non-transparent, preference exercised by the UPA Government in favour of the civilian nuclear programme. In the trade-off, the economist in Dr. Singh seems to have come to the fore, although even here not without controversy. The Mid-Term Appraisal of the 10th Five Year Plan (2002-2007) by the Planning Commission presents a gloomy picture of the prospects of stepping up the generation of nuclear energy, as "an important tool for de-carbonising the Indian energy sector," given the below-par performance. While total installed nuclear power capacity remains as low as 3310 Mwe (against an officially proclaimed target of 10,000 Mwe for the end of the 20th century), the Plant Load Factor for nuclear power plants has actually declined over the past few years, "primarily due to non-availability of nuclear fuel because the development of domestic mines has not yet kept pace with addition of generating capacity." If India can forgo the option of nuclear power on a large scale, there is no problem. However, if the country is determined to expand, as it must, its civilian nuclear power programme to a capacity of, say, 20,000 MWe and then 30,000 MWe, there is no way of getting either enriched or natural uranium fuel other than through a *quid pro quo* arrangement that will enable the Nuclear Suppliers Group to relax its stringent regime and make a constructive exception for India. In fact, the trade-off agreed to in the Joint Statement for a resumption of full civilian nuclear cooperation and trade is not radically different from the supply-related safeguards accepted by India at four operating nuclear power reactors. There is of course a need to ensure that the country's independent research activities oriented to peaceful purposes, including the fast breeder programme, are not obstructed or slowed down. The bigger worry is over the question of whether there are hidden linkages — compromises wrested from India in the realm of foreign and security policies, for example, on the Iranian gas pipeline or in the cooperation proposed in the global 'war against terrorism' — that go with the nuclear deal. The other serious problem is that while 'non-proliferation' concerns figure in the Joint Statement, the UPA Government has regrettably failed to show the slightest interest in returning to India's traditional policy of promoting nuclear disarmament on the world stage. The Government owes it to the country to provide clear and straightforward answers to these caveats, breaking with the secretive manner in which it did the nuclear deal.

Two Cheers

Explore the potential of nuclear power

THE US has given a clean chit to India's nuclear programme. This paves the way for increased fuel assistance to India's atomic power generation. Nuclear power, which accounts for just 3% of our total power generation of nearly 100,000 MW, has the potential to become the energy of the future. Till yesterday seen as a costly and even unsafe means of producing power, it has shot into focus as a viable alternative with oil prices ruling at \$60 a barrel. With the Kyoto Protocol exerting pressure on carbon emissions, nuclear power can circumvent some of its provisions. The availability of enriched uranium with the implementation of disarmament treaties has also given a boost to nuclear power. What is the status of nuclear power worldwide? In the US, nuclear power accounts for 14% of total power consumption, as against 20-25% in Britain and Germany. In France, nuclear power meets almost all its energy needs. In India, nuclear power consumption quadrupled between 1981 and 2003, while thermal power consumption doubled and hydel power consumption actually fell over the period. India's power consumption, now about a sixth of the US, is projected to double by about 2015 in a high growth scenario. By 2020, the nuclear power programme is expected to generate 20,000 MW or just under 10% of India's total requirements. Is this a plausible assumption?

Thermal power supplies four-fifths of India's power needs against 50% in the US. It continues to be a viable source of power for India despite the paucity of high-grade coal which tends to increase generation costs and pollute the environment. Hydel power accounts for 12-15% of our consumption but is not exactly a promising option. Hydel projects pose huge problems of displacement and resettlement as well as seismic dangers when located in new rock formations or near earthquake faultlines. They give rise to water-sharing disputes between neighbouring countries and states. Nuclear power entails forbidding capital and raw material costs, and runs on huge hidden subsidies, what with capacity utilisation in India at less than 50%. Besides, insiders have established that safety standards at Tarapore and elsewhere are shoddy. Unless these factors are addressed, India's nuclear programme will fail to play a major role in meeting the growing demand-supply gap despite US assistance. That would be a pity.

22

JUL 2005

THE TIMES OF INDIA

Singh takes home right to expand arms programme

How nuke freedom was won

Handwritten notes:
Nuclear energy
Pakistan
1.1 2/7

K.P. NAYAR

Washington, July 20: Prime Minister Manmohan Singh will return home tonight, having unleashed a worldwide storm that threatens to bury a discriminatory global nuclear non-proliferation regime his predecessors have unsuccessfully tried to change for at least four decades.

The full force of the nuclear storm, which the Prime Minister has set in motion, is not yet being felt: its early gusts are between the lines of a joint statement issued after Singh and President George W. Bush ended their talks.

Singh is taking home an endorsement of India's unfettered right to not only continue the nuclear weapons programme, but also expand it. India will not stop producing fissile material needed for nuclear weapons.

Nor is it required to initial any Fissile Material Cut-off Treaty, which discriminates between countries that have signed the Nuclear Non-Proliferation Treaty (NPT) and those, like India, that have refused to do so.

Singh secured an unexpected prize when Bush agreed with him that in New Delhi's quest for nuclear energy, it would be India's prerogative to separate its "civilian and military nuclear facilities and programmes".

The implications of such an agreement, spelt out in black and white in the joint statement, are two-fold: India, not another country, not any international agency, will determine which of its nuclear facilities will be used for military purposes. Such military facilities will not be opened up for any inspection.

Second, such voluntary separation means India retains the right to build more reactors for its nuclear weapons programme and expand its nuclear armoury at its discretion.

Behind such gains, which Singh is taking home, is the story of dogged negotiations, arguments, even verbal duels which bordered on acrimony: ironically, not between the Indian and the US delegations but among the star-studded team of negotiators who accompanied the Prime Minister.

On one side were representatives of the scientific community who would not agree

to open nuclear facilities to international agencies. On the other were diplomats who could not permit the Prime Minister to return without something to show for the visit.

Ronen Sen, the ambassador to the US, was drafted in to work out a compromise. Sen made changes to the draft of the joint statement sent by the US.

Those changes took care of the apprehensions of the scientific community, leaving India with the freedom to operate its indigenous nuclear programme much in the same way it has been doing so far.

Once the disagreement within the Indian camp had been sorted out came the cliffhanger: will the Americans agree to the changes, which implied that India was a nuclear weapons state?



- Discord between political and scientific establishments
- Scientists don't want to open all nuclear facilities to international inspection
- Diplomatic side eager to show results from PM visit
- Ambassador Ronen Sen mediates between the two sides
- Changes made to draft of joint statement with US
- It means India can keep military facilities away from inspection

On Sunday, US secretary of state Condoleezza Rice sent word that she wanted to meet external affairs minister Natwar Singh.

But the minister was in New York, meeting the Group of Four foreign ministers on India's quest for a permanent seat in the UN Security Council. He was to leave New York for Washington only at 7 pm.

The Prime Minister asked Natwar Singh to rush here and he advanced his departure from New York by four hours to meet Rice. She agreed in principle to the changes, but there was still one imponderable: will Bush take this giant leap to pave the way for India's formal entry into the nuclear club?

It was only when the Prime Minister and the President sat down for their formal talks on Monday that the Indians got the answer they wanted.

■ More reports on Page 8

21 JUL 2004

THE TELEGRAPH

Fuel or reactors: Experts split

OUR SPECIAL CORRESPONDENT

New Delhi, July 24: After decades of self-reliance, India's nuclear establishment appears to be at the crossroads, eyeing possible import of nuclear fuel and reactors to meet what some experts say are unrealistic nuclear power plans.

Senior nuclear power experts have said any US action to help India import nuclear fuel and reactors would be crucial to meet the Department of Atomic Energy plan to produce 20,000 mw of nuclear power by 2020.

The emerging Indo-US equations on nuclear matters have generated a debate on whether India should import nuclear fuel alone or reactors too.

"Import of reactors will make India dependent on unfamiliar technology and make us go begging for fuel throughout the lifetime of the reactors," said Adinarayana Gopalakrishnan, the former chairman of the Atomic Energy Regulatory Board.

However, one nuclear technology expert, who requested anonymity, said it is time that India "re-examined its frozen position" on reactors.

Experts fear that without fuel or reactors, India's nuclear power curve may begin to dip in 10 years. With 14 operating reactors and eight under construction, nuclear power capacity is expected to rise from about 2,700 mw now to about 6,000 mw by 2010.

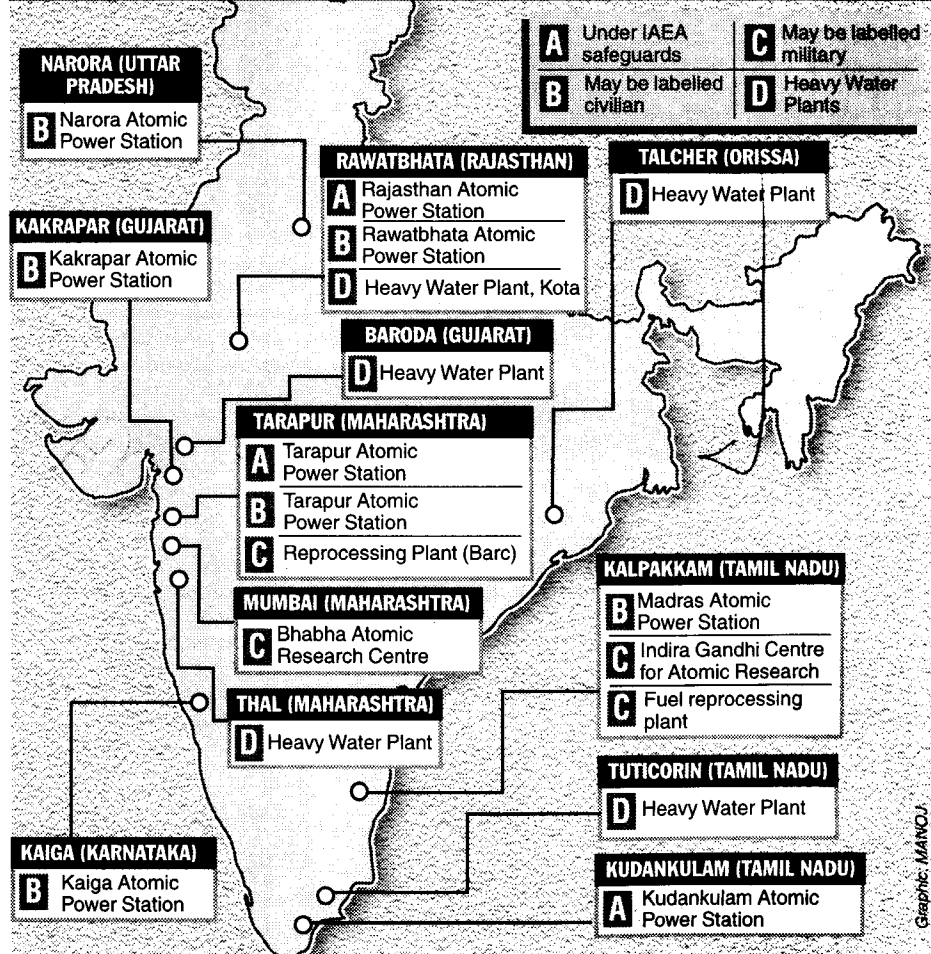
India's installed wind power capacity of 3,500 mw now exceeds nuclear power production.

Except for two US-made reactors in Tarapur and one in Rajasthan, all operating reactors are based entirely on indigenous research efforts. The department of atomic energy has been unable to import nuclear fuel or technology for decades because of sanctions against India, prompted by its nuclear test in 1974.

Nuclear power experts estimate that India's reserves of natural uranium will support 10,000 mw of nuclear power. While uranium deposits have

INDIAN NUCLEAR ENERGY SCENARIO

NUCLEAR POSITIONS



been detected at sites in Andhra Pradesh and the Northeast, efforts to mine the mineral have failed to take off.

Analysts estimate that the shortage of natural uranium would affect even existing nuclear power reactors.

The 20,000-mw target assumes that India would build at least eight more home-grown pressurised heavy water reactors and import six light water reactors (LWR) that are technologically a bit different from the indigenously-developed heavy water reactors.

Gopalakrishnan said Indian nuclear scientists and engineers are "thoroughly familiar" with heavy water reactors but not with light water reactors that will come with different designs, fuel handling systems and safety features.

"They will need to retrain themselves to work with LWRs," he said.

The light water reactors use enriched uranium as fuel and India would have to import this throughout the lifetime of the reactors. "It's like buying a foreign car for which we have to import the fuel all the time," Gopalakrishnan said.

However, one nuclear expert argued that the light water reactors are more popular than the heavy water ones.

Light water reactors are dominant across the US and Europe. Canada and India are among the few countries that use heavy water reactors. "It's time for some rethinking," the expert said.

Some nuclear scientists said imported LWRs would allow India to expand nuclear

power capacity for short-term energy needs over the next 15 years. Two 1,000-mw, Russia-made reactors, now under construction in Kudankulam in Tamil Nadu, are also LWRs.

But Gopalakrishnan said LWRs would not be able to feed plutonium into fast-breeder reactors that represent the second phase of India's nuclear power programme envisioned decades ago by the late Homi Bhabha.

The plan aims at making India self-reliant on nuclear fuel by gradually moving towards a third phase that will exploit the country's vast reserves of thorium in coastal Kerala. "Imported LWRs would not move us closer to that goal in any way," Gopalakrishnan said. "They would merely foster dependency."

25 JUL 2005 THE HINDU

BEYOND FLAWS

^{1-18, 2015 Nuclear Energy}
The declaration of the prime minister, Mr Manmohan Singh, that India is a responsible nuclear power is an attempt by New Delhi to find accommodation with the nuclear non-proliferation regime. Mr Singh indicated that India was willing to share international obligations as a partner against nuclear proliferation. It remains to be seen if the main stakeholders of the regime are willing to accept New Delhi as a partner rather than as a violator. Mr Singh's remarks are significant because of the ongoing review conference of the members of the nuclear non-proliferation treaty. The NPT recognizes only five nuclear weapon states — those who acquired these weapons before 1970. Thus India, Pakistan and Israel, which acquired nuclear weapons after this date, do not find place within the NPT system. It is now recognized that the NPT system is deeply flawed. The NPT has not even been able to prevent party states, which pledged not to acquire nuclear weapons, from acquiring nuclear capability.

The examples of North Korea and Iran demonstrate that the NPT may increasingly become irrelevant. There are two ways to prevent proliferation: by containing the demand for such weapons or by preventing the supply of nuclear technology. As long as nuclear weapons are seen as the instrument of power, the demand for them is likely to remain. The supply-side strategy relies on compliance by all those who have nuclear technology and commit themselves not to proliferate. A more pro-active strategy would be to take punitive measures against those states which are about to acquire nuclear weapons. For both, the non-proliferation regime needs India's support. The United States of America and India have been cooperating on developing a common approach to nonproliferation. But the larger regime must be willing to adapt its norms to include India. And India would get access to nuclear and other dual-use technologies. It would also become a real player on issues of international security. This must have been the thinking behind Mr Singh's statement that India was prepared for the broadest engagement with the international non-proliferation regime. Mr Singh also asserted that India will not be a source of proliferation of sensitive technologies. It is now for the established nuclear weapon powers to respond to India's latest initiative.

Nuclear gong, loud and clear

OUR SPECIAL
CORRESPONDENT

New Delhi, May 17: India is prepared for "the broadest possible engagement" with the international non-proliferation regime provided its interests are safeguarded, Prime Minister Manmohan Singh said here today.

New Delhi is being urged by Washington to sign the Nuclear Non-proliferation Treaty (NPT) and Singh's elucidation of the Indian standpoint is a justification of India's position.

The Prime Minister was speaking to military scientists and heads of military establishments after giving away awards to scientists of the Defence Research and Development Organisation (DRDO).

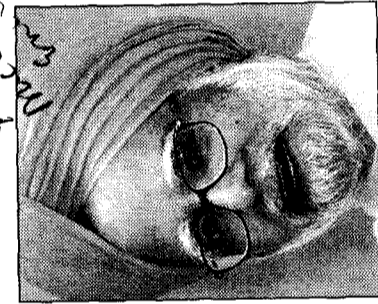
"In the defence field and

the nuclear field, our strategic programmes are indigenous and not dependent on external sources of support. Nor can they be subject to externally imposed constraints," he said.

"Our message to the international community is, therefore, loud and clear — India is willing to shoulder its share of international obligation as a partner against proliferation provided our legitimate interests are safeguarded."

Earlier, the DRDO head and the scientific adviser to the defence minister, M. Natwarajan, said India was preparing to testfire the long-range (possibly 3,000 km) strategic Agni III missile this year. But heads have announced the intentions to testfire Agni III but the plans did not fructify.

The Prime Minister said



Singh addresses military scientists. (AFP)

the government had only last week demonstrated its commitment to non-proliferation. Parliament had passed the Weapons of Mass Destruction and their Delivery Systems (Prohibition of Unlawful Ac-

tivities) Bill. He said the Bill compares favourably with the best global standards on non-proliferation.

Global and American concerns over proliferation on WMD have been heightened since last year following the disclosure that Pakistani nuclear scientist A.Q. Khan traded in sensitive material.

"India will not be, and I repeat, will not be a source of proliferation of sensitive technologies. We will adopt the most stringent measures to safeguard and secure the technologies that we possess, or those that we acquire through international collaboration," Singh said.

He said India was seeking to maintain a credible defence posture and at the same time make peace with neighbours.

"We have no desire to er-

gage in any arms race, as that would divert vitally needed resources away from the basic developmental purpose."

Singh said he was concerned that delays in implementation of defence projects could impact military preparedness.

"We can ill-afford continued delays in project implementation, both in terms of impact time and cost overruns. Delays not only affect the national exchequer, they can also seriously undermine the confidence of the defence services if a weapon system is practically obsolete by the time of its induction."

This was an indirect reference to the tardy acceptance and development of several DRDO projects that have fallen behind the timeline for a combination of reasons, from sanctions to faulty planning.

India's N-programme safe: PM

JNB. P. V. W.

By Chidanand Rajghatta/TNN

Washington: India's nuclear weapons programme and its strategic capabilities are secure and will not be affected by the nuclear agreement with the United States, Prime Minister Manmohan Singh has said.

Responding to apprehensions in some quarters in India that the terms of the agreement, including intrusive inspections of India's nuclear facilities and separating civilian and military reactors, would affect India's national security, the Prime Minister said that was a misconception.

"Whatever decision we have taken is on the basis of our national security concerns...we have taken into account how to protect our autonomy in matters of strategic capabilities," he said, when asked about the reported criticism of the terms of deal in some political quarters in India, including by former prime minister Atal Bihari Vajpayee.

Even before the press



Prime Minister Manmohan Singh at a luncheon meeting at the Capitol Hill on Tuesday

meet ahead of his return to India, the PM addressed this sensitive issue in a wrap-up statement.

"I believe this agreement provides a way forward for India to break out of its present isolation and expand international cooperation, enabling us to enhance the contribution of nuclear energy in meeting our future energy needs," the statement said.

"At the same time, it does

not in any way, lead to a diminution of our strategic nuclear capabilities which would affect our national security interests."

The statement said a "carefully selected" working group would determine how best to progress matters reflected in the Indo-US nuclear agreement. The PM said he would be making a *suo motu* statement on the matter after his return to India on Thursday. He said

that the agreement was not a one-way obligation on India and was contingent on "reciprocal commitments, which will be addressed in a phased manner."

He faced a barrage of questions about the reported opposition to the deal in India, but he handled the issue calmly, saying India's national security concerns would not be a partisan issue and would be on the basis of a national consensus.

"I have full confidence in the inherent patriotism of the Indian people," he said, adding, "Sometimes parliamentary and domestic politics diverts attention from larger goals. I am confident of carrying people along."

The Prime Minister also indicated India would proceed apace with the proposed pipeline from Iran, implicitly rejecting speculation that the nuclear deal with the US was a sweetener aimed at scup-
pering it.

"India's needs for import of hydrocarbons is a

'We share concern of nuclear scientists'

Separating civilian and military nuclear facilities would be difficult, says Vajpayee

of Nuclear Energy

Special Correspondent

10

NEW DELHI: Giving its first considered reaction to the July 18 Indo-U.S. joint statement signed by Prime Minister Manmohan Singh and American President George Bush, The Bharatiya Janata Party on Wednesday said that the Bush administration "may have recognised India as a responsible state with advanced nuclear technology" but was "far from recognising India as a legitimate and responsible nuclear weapons state." It was reacting to the July 18 Indo-U.S. joint statement, signed by Prime Minister Manmohan Singh and U.S.

President George Bush.

In a statement here on Wednesday, the former Prime Minister and National Democratic Alliance chairman, Atal Bihari Vajpayee, said that the BJP shared the "concern" and "consternation" of India's nuclear scientists and defence analysts. It would be difficult, if not impossible and prohibitively expensive, to separate India's civilian and military nuclear facilities as its "military programmes" were a "small fraction" of its nuclear facilities.

Nuclear deterrent

Mr. Vajpayee said the new ar-

rangement could deny India the right to determine the size of its nuclear deterrent on the basis of its own threat perception. "Though we believe in a minimum credible deterrent, the size of the deterrent must be determined from time to time on the basis of our own threat perception. This is a judgment which cannot be surrendered to anyone else."

He said that by accepting a separation of civilian and military nuclear facilities, "we have accepted a crucial provision of a future fissile material cut-off treaty even before such an international treaty has been fully

negotiated and put into force by other nuclear weapons states."

While India had made "long-term and specific commitments," the U.S. had "merely made promises" which Mr. Bush "may not be able to see through either the U.S. Congress or its friends in the exclusive nuclear club."

Restrictions on research

Other issues mentioned by Mr. Vajpayee were the "restrictions" that might now be put on our research programmes. In this context, he mentioned the thorium research programme, which could give us freedom

from nuclear fuel imports. The Government, he said, owed an explanation as to what would happen to that programme.

He also objected to the Additional Protocol, under which civilian nuclear facilities would be opened to intrusive international inspections "anywhere, anytime." On issues such as the International Thermo-Nuclear Experimental Reactor and the Generation IV International Forum (a joint project of 10 countries that aims at competitively priced nuclear energy that is safe and resistant to proliferation), the U.S. commitment "could have been more forthright."

India won't be source of proliferation: PM

g.s.s. *Q. Nuclear energy & IAS*

EXPRESS NEWS SERVICE
NEW DELHI, MAY 17

PRIME Minister Manmohan Singh said today that the country is prepared for the broadest engagement with the international non-proliferation regime, but only if its indigenous nuclear and strategic programme is not tethered to outside restrictions.

At an awards event this morning, Singh said, "India is willing to shoulder its share of international obligations as a partner against proliferation, provided our legitimate interests are safeguarded."

The country is "conscious of its responsibilities deriving from the possession of advanced technologies", the PM said. "We have illustrated our commitments to these responsibilities, through Parliament passing the WMDs and their Delivery System Prohibition of Unlawful Activities Bill."

"India will not be a source of proliferation of sensitive technologies. We will adopt the most stringent measures to safeguard and secure the technologies we possess or those we acquire," the PM emphasised.

He also said non-proliferation concerns should not be a



PM with Pranab at the DRDO awards. Anil Sharma

barrier to high-technology trade. "The strict regulation of external transfers and tight control to prevent internal leakage should give confidence to international suppliers of high technology items that their supplies will remain fully secure with us."

"In the defence field and nuclear field, our strategic programmes are indigenous...Nor can they be the subject of externally imposed constraints. Within these parameters, India is prepared for the broadest possible engagement with the international non-proliferation regime," the PM said.

PM defends N-deal with America

9-
Nuclear
summit
Paris

5/1-
2/1/7

Press Trust of India

WASHINGTON, July 20. — Asserting that the nuclear agreement reached with the USA would not lead to any “diminution” of India’s strategic nuclear capabilities, the Prime Minister today said it was not a “one sided” deal.

The agreement under which the USA would supply fuel for Tarapur Atomic Power plant and lift other restrictions imposed on India after the Pokhran tests 31 years ago was in the national interest and would enable the country “break out of its present isolation”, Dr Manmohan Singh said summing up his three-day state visit.

Rejecting criticism of the agreement including that by his predecessor Mr Atal Behari Vajpayee, Dr Singh said the obligations undertaken by India were entirely on the basis of reciprocity. Only when the USA implemented its commitments to India’s satisfaction, would India also reciprocate, he added.

‘US boost to UNSC seat’

WASHINGTON, July 20. — Dr Manmohan Singh today said he does not believe the USA is averse to India becoming a permanent member of an expanded UN Security Council but the Bush administration’s position is that the priority in the world body’s reforms lies elsewhere.

He was confident, the Prime Minister told a news conference here, that when the time comes, the USA would support India’s case for permanent membership. This is the impression he had got during the discussion he had had with President Bush.

On terrorism, the Prime Minister made it clear to Pakistan that he would not be able to push forward the peace process if its territory continued to be allowed for terrorist activities against India. — PTI

A “carefully selected” working group would determine the pace to “progress matters” reflected in the joint statement in regard to nuclear issue, Dr Singh said.

The agreement on civilian nuclear energy provided the way forward for India to “break out of its present isolation” and expand international cooperation, “enabling us to enhance the contribution of nuclear energy in meeting our future energy needs”.

Asked if he would be able to secure a consensus in Parliament on the agree-

ments reached here, Dr Singh that Parliament was sovereign and the government could move forward only on the basis of a national consensus. He would be making a suo motu statement in Parliament on his visit and its results.

Bush visit in Jan likely

President Mr George W Bush is likely to visit India in January 2006, Dr Singh indicated in Washington today. He told a press conference that he hoped Mr Bush’s visit will “materialise probably” in January.

Vajpayee raps nuclear pact

Press Trust of India

NEW DELHI, July 20. — Criticising the Indo-US nuclear agreements, Mr Atal Behari Vajpayee today said the US has “merely made promises” but India has made “long term and specific commitments” having security implications for the nation.

“The Bush Administration may have recognised India as a responsible state with advanced nuclear technology but it is far from recognising India as a legitimate and responsible nuclear weapon state”, he said reflecting BJP’s first reaction to the Indo-US Joint Statement issued after discussions between Dr Manmohan Singh and Mr George W Bush. He said India’s offer to sign and adhere to an Additional Protocol with respect to civilian nuclear facilities was also “dangerous”.

Cong umbrage

The Congress today took umbrage to the previous NDA government’s national security advisor, Mr Brajesh Mishra’s criticism of Dr Singh’s nuclear deal with the USA, calling it “inappropriate and unfounded”, adds SNS.

21 JUL 2005

THE STATESMAN

ভুল ছিল বুশের ইরাক অভিযান

পরমাণু সমঝোতা নিয়ে তোপ বাজপেয়ীর, মনমোহন অটল

2 July 2005

স্টাফ রিপোর্টার, নয়াদিল্লি ও নিজস্ব প্রতিনিধি, ওয়াশিংটন, ২০ জুলাই: আশঙ্কা ছিল সমালোচনায় মুখর হবে বাম দলগুলো। কিন্তু তারা মনস্থির করে ওঠার আগেই ভারত-মার্কিন পরমাণু চুক্তি নিয়ে বিতর্কের জন্ম দিল বিজেপি।

সরকারের সঙ্গে সংঘাতের ক্ষেত্র কমিয়ে আনতে ব্যস্ত বামেরা বুশ-মনমোহন চুক্তির পরে স্বাভাবিক ভাবেই অস্থিত্তে। কেননা, যে সব বিষয়ে তাদের আপত্তি সেই সব বিষয়েই মার্কিন প্রস্তাবে প্রধানমন্ত্রী সায় দিয়েছেন। কিন্তু এ নিয়ে কী ভাবে কী বলা হবে বামেরা তা ঠিক করে ওঠার আগেই প্রাক্তন প্রধানমন্ত্রী অটলবিহারী বাজপেয়ী আজ এক বিবৃতিতে বলেছেন, আমেরিকার সঙ্গে পরমাণু চুক্তি করে আশ্বের ভারতের ক্ষতিই হবে। বিঘ্নিত হবে জাতীয় নিরাপত্তা। তাঁর দাবি, বিষয়টি নিয়ে দেশের পরমাণু বিজ্ঞানী ও প্রতিরক্ষা বিশেষজ্ঞ মহলে ইতিমধ্যেই আতঙ্ক তৈরি হয়েছে। প্রধানমন্ত্রী মনমোহন সিংহ অবশ্য এই অভিযোগ খারিজ করে দিয়ে বলেছেন, ঠিকমতো তথ্য না পেয়েই মন্তব্য করেছেন বাজপেয়ী।

বাজপেয়ীর সমালোচনার মূল লক্ষ্য ভারতের সামরিক ও অসামরিক পরমাণু প্রকল্পগুলিকে আলাদা করার ব্যাপারে মনমোহনের দেওয়া আশ্বাস। তাঁর কথায়, “আমাদের পরমাণু প্রকল্পের খুব সামান্য অংশই সামরিক কাজে ব্যবহৃত হয়। সামরিক এবং অসামরিক প্রকল্পগুলিকে আলাদা করা খুই কঠিন। এমনকী কিছু কিছু ক্ষেত্রে প্রায় অসম্ভব।” ফলে মনমোহনের সিদ্ধান্ত ভবিষ্যতে দেশের নিরাপত্তাকেই বিঘ্নিত করতে পারে বলে প্রাক্তন প্রধানমন্ত্রীর আশঙ্কা।

ভারতকে পরমাণুশক্তিধর দেশ হিসাবে আমেরিকা রাজনৈতিক স্বীকৃতি দেওয়ার ৪৮ ঘণ্টা পরে প্রথম প্রতিক্রিয়া জানাল বিজেপি। এবং সাধারণত বিদেশনীতির ক্ষেত্রে সরকারের পাশে দাঁড়ানো বিরোধীরা এ ক্ষেত্রে মনমোহন সরকারকে সমর্থন করেনি। প্রাক্তন জাতীয় নিরাপত্তা উপদেষ্টা ব্রজেশ মিশ্রও সরকারের সিদ্ধান্তের সমালোচনা করে বলেছেন, “ওয়াশিংটনে যে কথা দেওয়া হয়েছে তার অর্থ এই যে, আমরা পরমাণু অস্ত্রের ক্ষেত্রে মার্কিন বিধিনিষেধ মেনে নিচ্ছি।” বিজেপির বক্তব্য, মার্কিন পরমাণু জ্বালানি ও প্রযুক্তি পাওয়ার খাতিরে ভারত যদি তার অসামরিক পরমাণু প্রকল্পগুলির দরজা আন্তর্জাতিক পরমাণু শক্তি সংস্থার পর্যবেক্ষণের জন্য খুলে দেয়, তা হলে তার সামরিক পরমাণু প্রকল্পও ব্যাহত হবে। যার দীর্ঘমেয়াদি প্রভাব পড়বে দেশের নিরাপত্তার উপরে।

কিন্তু এ দিনই ওয়াশিংটনে বাজপেয়ীর আশঙ্কাকে অমূলক বলে উড়িয়ে দিয়েছেন মনমোহন। তাঁর পাল্টা দাবি, সামরিক ও অসামরিক পরমাণু প্রকল্পগুলিকে আলাদা করাটা জাতীয় সিদ্ধান্ত। এবং আমেরিকার সঙ্গে পরমাণু চুক্তি করার সময় জাতীয় নিরাপত্তার কথাই মাথায় রাখা হয়েছে। মনমোহন সিংহের বক্তব্য, গোটা চুক্তিটাই হয়েছে পারস্পরিক আদানপ্রদানের ভিত্তিতে। আমেরিকা

যদি তার কথা না-রাখে তা হলে ভারতও শর্তপূরণ করবে না।

পরমাণু চুক্তি করে দেশের মতো বিদেশেও চ্যালেঞ্জের মুখে মনমোহন। ভারতকে পরমাণু প্রযুক্তি দেওয়ার ব্যাপারে আপত্তি জানিয়েছেন আমেরিকার বহু রাজনীতিক। তবে আজ তাঁদের প্রথম বাধাটাই পেরিয়ে গিয়েছেন প্রধানমন্ত্রী। ভারতে পরমাণু প্রযুক্তি রফতানির উপরে নিষেধাজ্ঞা জারি করতে চেয়ে ডেমোক্রেটি সেনেটরের আনা প্রস্তাব খারিজ করে দিয়েছে কংগ্রেস।

বিজেপি যখন খোলাখুলি মনমোহনের সমালোচনায় মুখর, তখন তাঁর আমেরিকা সফর নিয়ে প্রতিক্রিয়া জানাতে গিয়ে চিন্তায় বামেরা। দলীয় মুখপত্রে সিপিএমের সাধারণ সম্পাদক প্রকাশ কারাটের নিবন্ধ নিয়ে ব্যাপক সমস্যা তৈরি হওয়ার পর দুই বাম দলই এখন সাবধানে পা ফেলতে চাইছে। কারণ, সামনেই সংসদের অধিবেশন এবং সেই পরিপ্রেক্ষিতে বিজেপিকে কোণঠাসা করতে সরকারপক্ষ এখন বামদের সঙ্গে অন্তত একটা সাময়িক বোঝাপড়া চাইছে। ফলে প্রধানমন্ত্রীর সফর নিয়ে অতি-আক্রমণাত্মক মনোভাব নিলে সেই বোঝাপড়ার প্রক্রিয়া ক্ষতিগ্রস্ত হতে পারে।

কিন্তু ঘটনা হল, বিজেপি যে আপত্তি জানিয়েছে, তা বামদেরও মনের কথা। তারাও মনে করে অসামরিক পরমাণু কেন্দ্রের হালহকিকত আমেরিকাকে জানানো কোনও অবস্থাতেই উচিত নয়। সেই সঙ্গে সন্ত্রাসবাদের বিরুদ্ধে লড়াইয়ে আমেরিকার হাতে হাত মেলানোর ব্যাপারেও আপত্তি আছে তাদের। এই সব বিষয় কতটা জোরালো ভাবে সামনে আনা হবে তা নিয়েই আপাতত চিন্তায় বাম নেতারা।

কারাট এবং সিপিআই-এর সাধারণ সম্পাদক এ বি বর্ধন দু’জনেই আজ জানিয়েছেন, তাঁরা কাল প্রতিক্রিয়া জানাবেন। প্রয়াত পি কে বাসুদেবন নায়ারের স্মরণসভায় যোগ দেওয়ার পরে কারাট বলেন, “আমি সব চিন থেকে ফিরেছি। কাল সতীর্থদের সঙ্গে আলোচনা করে যা বলার বলব।” বর্ধন অবশ্য গত কয়েক দিন ধরেই দিল্লিতে রয়েছেন। কিন্তু তিনিও বলেন, “ভাল করে দেখে যা বলার কাল বলব।”

ইতিমধ্যে কংগ্রেস এই সফরকে ‘ঐতিহাসিক’ বলে অভিহিত করার পাশাপাশি আজ বলেছে, যঁারা ভারত-মার্কিন পরমাণু বোঝাপড়ার বিরোধিতা করে নানা কথা বলেছেন, তাঁরা ‘হতাশার শিকার’। প্রধানমন্ত্রীর ‘সফর পরিপূর্ণ ভাবে সফল’। তার সঙ্গে জাতীয়তাবাদী তাস খেলে নটরাজন আজ বলেছেন, ভারতের উন্নতি ও সমৃদ্ধিই এই সাফল্য এনেছে।

আশ্বাস স্থায়ী আসন, জঙ্গি দমনেরও

সীমা সিরোহি ● ওয়াশিংটন

২০ জুলাই: শুধু পরমাণু প্রকল্পে সহযোগিতা নয়, আমেরিকা সফরে এসে বুশ-প্রশাসনের কাছ থেকে আরও দু’টি উপহার পেলেন প্রধানমন্ত্রী মনমোহন সিংহ। এক, রাষ্ট্রপুঞ্জের নিরাপত্তা পরিষদে স্থায়ী আসন পাওয়ার ব্যাপারে আমেরিকার সমর্থনের প্রায় স্পষ্ট ইঙ্গিত। দুই, পাক-অধিকৃত কাশ্মীরে জঙ্গি শিবির ভাঙার জন্য প্রেসিডেন্ট মুশারফকে চাপ দেওয়ার আশ্বাস।

এই প্রাপ্তি সত্ত্বেও নিজেদের অবস্থান থেকে নান-ড়ে মনমোহন আমেরিকার মাটিতে দাঁড়িয়েই জানিয়ে দিয়েছেন, বুশের ইরাক অভিযান ভুল হয়েছিল। তবে তা এখন অতীত। ভারত এই যুদ্ধ-বিধ্বস্ত দেশের পুনর্গঠনে সামিল হতে চায়।

নিরাপত্তা পরিষদের স্থায়ী আসন চেয়ে দিল্লির দাবিকে বুশ প্রশাসন যে সমর্থন জানাতে পারে, পরমাণু চুক্তির মধ্যেই তার ইঙ্গিত ছিল। ভারতকে পরমাণুশক্তিধর দেশ হিসাবে রাজনৈতিক স্বীকৃতি দিয়ে তাকে কার্যত পাঁচটি স্বীকৃত পরমাণুশক্তিধর দেশের সঙ্গে একাসনে বসিয়ে দিয়েছেন প্রেসিডেন্ট বুশ। এই পাঁচটি দেশই নিরাপত্তা পরিষদের স্থায়ী সদস্য। এখন আমেরিকার অবস্থানের ফলে ভারতের দাবি অনেক জোরদার হল।

এ দিন সাংবাদিক সম্মেলনে মনমোহন অবশ্য বলেছেন, নিরাপত্তা পরিষদের স্থায়ী সদস্যপদ নিয়ে আমেরিকার কাছ থেকে সরকারি ভাবে কোনও আশ্বাস তিনি পাননি। জাপান, জার্মানি ও ব্রাজিলের সঙ্গে জোট করে (জি-৪) নিরাপত্তা পরিষদের বিস্তারের এর পর সাতের পাতায়

Singh douses security fears, blames N-haze

Play of words in nuke game

K.P. NAYAR

Washington, July 20: Between "the" and "an" lay India's road to freedom from international obligations that would have sat heavy on its nuclear programme.

Aboard the special Air India Boeing 747 that took off with Prime Minister Manmohan Singh from New Delhi at noon on Saturday an argument was raging between two sides of the accompanying official delegation.

On one side were those who claimed to speak for the scientific community, like Anil Kakodkar, secretary in the department of atomic energy, V.S. Ramamurthy, secretary in the department of science and technology, and G. Madhavan Nair, secretary in the department of space.

They would not stand for anything that would open the way for foreign countries or international agencies to eventually ride roughshod over India's indigenous nuclear, space or missile programmes.

The ministry of external affairs wanted to show results in the engagement of the US. Above all, the Prime Minister would not go back home with what would appear to be empty hands.

In the end, India's ambassador to the US, Ronen Sen, acted as the referee by virtue of his experience of

nuclear work.

In the late 1970s and early '80s, Sen was on deputation to the department of atomic energy and was secretary of the Atomic Energy Commission. In those capacities, he worked both with Homi Sethna and Raja Ramanna, pillars of the nuclear programme.

Sen negotiated his way through the minefield of divergence of opinions. He made copious changes to the draft of the joint statement which came from the Americans.

He added a word here, changed another there. But those words had the potential to change India's standing in the world as a declared nuclear weapons state.

The original draft of the statement, for instance, spoke of India "signing and adhering to the Additional Protocol with respect to civilian nuclear facilities" as part of its quest for US help in developing nuclear energy.

That sentence was changed to India "signing and adhering to an Additional Protocol with respect to civilian nuclear facilities". The significance of that change is that New Delhi will not sign the standard Protocol, which is unfavourable to it as a non-signatory to NPT.

The US has signed a separate Protocol: the change meant that India would sign that Protocol and not the standard one.

BHARAT BHUSHAN

Washington, July 20: Prime Minister Manmohan Singh today claimed that criticism of his US visit was based on "misconception" and said nothing would be done to compromise India's strategic interests.

He announced that he would make a statement in Parliament explaining the understanding reached with the US. "We can move forward only on the basis of a broad national consensus," he said.

Singh said he had not seen the statement made by former Prime Minister Atal Bihari Vajpayee charging that the separation of India's civil and military nuclear programme would compromise national security.

However, the Prime Minister said: "If that statement has been made, I think it has been made on the basis of wrong information or misconception."

"The separation between civilian and strategic nuclear facilities will be a national decision. It will be taken on the basis of our security concerns being fully taken into account. The decision will be phased in a manner that will protect our autonomy in matters relating to (our) strategic concerns," he clarified.

Except in the US where the civilian nuclear reactors are entirely in the private sector, such separation is not easy even for the Nuclear Haves. India has also agreed to open its civilian reactors to international inspections and verification in return for access to such reactors in the international market.

The Prime Minister insisted that all obligations had

WHAT AMERICA THINKS

The Bush administration is known for gambles, and Monday's about-face on nuclear cooperation with India qualifies as such.

As the Bush team has discovered before, announcing a bold new policy is easier than implementing it. **The Washington Post**

This agreement is difficult to reconcile with the international norms advanced by the United States.

An expert in New York Times

They (other nuclear arms aspirants) are being shown that acquiring those ultimate terror weapons can be a stepping stone to recognition as a major power and that, after a decent interlude, they can expect to be pardoned... **Boston Globe**

The crux of this announcement is what it tells us about the US grand strategy... the US is preparing for a grand conflict with China and constructing an anti-China coalition. **An expert's quote in Christian Science Monitor**

been taken "fully on the basis of reciprocity". He claimed that "only when some steps are taken by the US to our satisfaction that we will take the steps (we have to take). It is certainly not true that this is one-sided."

Singh seemed keen on allaying fears at home that accepting specific and open obligations as a precondition for nuclear cooperation with the US might amount

ence to convert this (joint) statement into reality." Only that would enable the supply of civilian nuclear reactors to India.

The Prime Minister said for US support for its candidature to the expanded UN Security Council. President Bush apparently told him that US opposition to the G4 resolution on reforming the Security Council did not mean a rejection to caping India's weapons capability.

There is also criticism that India has entered into binding commitments while President George W. Bush will only "seek" agreement from the US Congress to change laws to permit civilian nuclear cooperation with India — an uphill task.

Thus, Singh said: "I sincerely hope that the US administration will use all its influ-

Industrialist Purnendu Chatterjee greets Prime Minister Manmohan Singh during a luncheon hosted by the committee on foreign relations at Capitol Hill on Tuesday. Picture by Jay Mandal

tion of India's candidature by the US.

"My own feeling is that when the time comes, the US will be on our side although I cannot assert that as of now," Singh said.

Not only the initiative with the US but even the peace process with Pakistan and the engagement with China will be pushed through, the Prime Minister said, denying that his government lacked the po-

litical capital to push any big ticket initiatives.

"We are a coalition government but I have great faith in the inherent patriotism of our people. And my own feeling is that whatever initiatives we take, whether it is with the US, Pakistan or China, I am confident of taking our coalition partners and the Opposition together," Singh claimed.

However, the Prime Minister said he had emphasised at every forum in Washington "the necessity of terrorist ele-

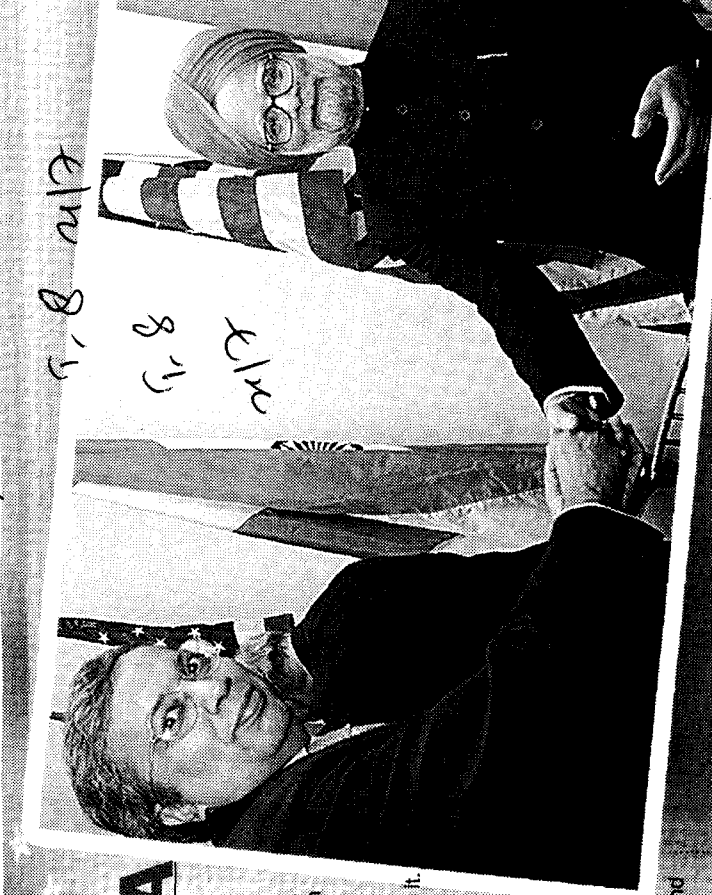
I believe that this agreement provides a way forward for India to break out of its present isolation... At the same time, it does not in any way lead to a diminution of our strategic nuclear capabilities... **— MANMOHAN SINGH in the prepared statement**

ments being brought under control as a pre-condition for our moving forward with Pakistan."

In this way then he has put the onus on the US also to put pressure on Islamabad to do the right thing.

The Prime Minister also emphasised that his visit to the US was "not directed against any other power".

Specifically referring to China, he said India's engagement with its "great neighbour in the north" would continue apace. A "resurgent India", he said, would be good for growth in Asia as well as the world.



It's the right call for us and for the world really. This is a way to bring India into a global non-proliferation regime, rather than have it on the outside. Karl Inderfurth, under secretary of state for South Asia in the Clinton administration, in Christian Science Monitor.

g-nuclear energy crisis

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21 JUL 2005 THE TELEGRAPH

Nuclear bargain may prove costly in long run

IAEA inspections at civilian plants will hamper nuclear programme, say experts.

Siddharth Varadarajan

THE JOINT statement released in Washington after Monday's meeting between Prime Minister Manmohan Singh and President George W. Bush is 'historic' in many different ways but none more so than on the nuclear front. Both India and the United States have abandoned positions that were, until yesterday, virtual articles of faith for their respective establishments. The U.S. says it is now in favour of "full civil nuclear energy cooperation" with India, which it describes as "a responsible state with advanced nuclear technology". In return, India has agreed to "separate its civilian and military nuclear facilities and programs in a phased manner" and place its "civilian nuclear facilities under International Atomic Energy Agency (IAEA) safeguards."

While both sides have shown considerable flexibility, it is India that has leapt a greater distance in conceding a key demand of the Bush administration that the IAEA be allowed to monitor the 'non-military' side of the Indian nuclear energy programme. Apprehending such a decision, former and serving scientists at the Department of Atomic Energy had told *The Hindu* on Sunday that allowing international inspectors access to all civilian nuclear plants would seriously hamper ongoing research work on the fast breeder reactor (FBR) programme and compromise India's long-term energy security. On Tuesday, when news came from Washington confirming that this was precisely the bargain struck, the scientists reacted with anger and disbelief.

'Against national interest'

"I shudder to think how we could have conceded such a thing," A.N. Prasad, former director of the Bhabha Atomic Research Centre (BARC), told this writer. "It is totally against the national interest." India, he said, would now face the prospect of its FBR programme being undermined and the cost of its nuclear weapons programme dramatically escalating.

According to Dr. Prasad, segregation of civilian and military facilities in the nuclear field in India is "impossible." "Our military activities are not aimed at stockpiling nuclear weapons," he said. "Rather, the aim is deterrence, which in turn is based on a given level of threat perception." Since the United States and the other big nuclear weapons state have doctrines based on stockpiling, they can perhaps afford to maintain dedicated military facilities for the production and maintenance of nuclear munitions. "But even they are finding that stockpiling imposes further costs. The weapons become old, their materials degrade, they have to be dismantled and replaced."

For India, he said, going down the route of stockpiling — which is what the logic of the Indo-U.S. joint statement implies — would be "highly counterproductive" and costly. Separating the civilian from the nuclear, as the Prime Minister has committed the country to doing, means having "dedicated, dedicated facilities for the military side which will necessarily have to be kept under-utilised" since the stated logic of the Indian nuclear weapons programme is "minimum deterrence."

Today, the Indian deterrent is maintained by "incremental efforts" from existing "civilian" nuclear facilities around the country and not just the two research reactors at BARC, Dhruva and CIRUS. "We produce what we need for the military programme at any given time and leave the rest for civilian use," says Dr. Prasad. "Having dedicated facilities will terribly raise the cost of the weapons programme." According to P.R. Chari of the Institute of Peace and Conflict Studies, the BARC reactors that produce weapon-grade plutonium also facilitate a significant amount of civilian research and activity, such as the production of radio isotopes. Firewalling military and civilian nu-



BONHOMIE, AT WHAT COST?: Prime Minister Manmohan Singh and President George W. Bush after the ceremonial reception at the White House in Washington on Monday. — PHOTO: PTI

clear activities would mean denying scientists from university departments across the country access to BARC's research facilities.

Danger in safeguards

As far as India's "voluntary" commitment to place civilian nuclear facilities under IAEA safeguards is concerned, the agreement Dr. Singh reached with Mr. Bush is a compromise between the dreaded "full-scope safeguards" (which would include military facilities) and the "facility-specific safeguards" that the Department of Atomic Energy was prepared to concede. However, full-scope safeguards was always a bogey rather than a real problem — as the U.S. has been reconciled to India's nuclear weapons status ever since the Strobe Talbott-Jaswant Singh talks began during the Clinton administration. In the "four benchmarks" Mr. Talbott insisted on at the time, neither full-scope nor partial IAEA safeguards figured anywhere, though "strategic restraint," a nuclear test ban, export control, and work on a fissile material cut-off agreement did.

Ever since Mitchell Reiss, head of the U.S. State Department's Policy Planning Division in the first Bush administration, started advocating IAEA safeguards for Indian civilian nuclear facilities, the DAE had been bracing itself for the day when this would be pushed through. At stake, says Dr. Prasad, is the fast breeder programme and its eventual third stage when India's huge reserves of thorium will allow it to enjoy energy security "for the next 300 years." "Allowing IAEA inspectors and signing the Additional Protocol means throwing open not just your reactors but the entire chain, the whole fuel cycle. This is the crux of the whole issue. Only those who have worked on advanced

nuclear research know the harmful effect intrusive inspections can have, he added.

The FBR, he says, "is sacred for us in the long-run. Once we get into thorium, no one can touch us. If we do it and succeed, we will be on top of the world. But to reach there, we need full freedom to do our research. Nobody should be breathing down our necks."

While the joint statement goes out of its way to suggest India will accept only those safeguards obligations "as other leading countries with advanced nuclear technology, such as the United States," the impact of IAEA inspections on Indian plants is likely to be far greater than anything the U.S. has experienced.

Testifying before the Senate Foreign Relations Committee in January 2004 on the Additional Protocol the U.S. has signed with the IAEA, Susan L. Burk, acting Assistant Secretary of State for Non-proliferation, said that U.S. compliance with international safeguards served a "basically political purpose" of "underscoring U.S. support" for the IAEA-run inspections process worldwide. "[S]afeguards in the U.S.," she noted, "are not directed at uncovering illicit or non-compliant nuclear activities." In the two decades since the U.S. voluntarily accepted IAEA safeguards, she said, only 17 of its 250 declared civilian nuclear facilities had ever been inspected. In 1993, the IAEA discontinued its inspections because of budgetary constraints and agreed to restart them only after the U.S. said it would reimburse the agency's expenses. Today, the IAEA applies safeguards at only four U.S. facilities.

Even if India negotiates a similar Additional Protocol with the IAEA and builds in the same 'national security exclusion,' it is unlikely to get away that lightly. The safeguards the U.S. is subject to are "very nomi-

nal," says Dr. Prasad but India will find the agency being "much more meticulous" in its case. Ever since the NPT regime began, the U.S. has been keen to get a fix on the Indian programme. To begin with, the IAEA is bound to go on a voyage of discovery. Later, it might move on to more constricting inspections.

"Tomorrow, if we need to pursue reprocessing or separation technology further, there are bound to be objections. The U.S. is likely to say, 'Don't do it, we will give you the fuel.' But then you are back to being dependent."

For India, there is the added danger of front-loading its own obligations under the joint statement. President Bush has committed himself to working with the U.S. Congress and America's allies to make an "exception" in the existing domestic and international regulatory framework for India but this is not likely to be a straightforward matter. Calling India a "state with advanced nuclear technology" has helped the U.S. bridge a semantic gap but it is not clear whether it will help the wider world of NPT signatories and Nuclear Suppliers Group members bridge what they perceive to be a legal gap.

There is one final issue that needs to be highlighted. What was the need for India to reiterate its commitment — in a bilateral statement — to a moratorium on nuclear tests? At the very least, India should have insisted that the U.S. too reiterate its own moratorium and not pursue research on new nuclear munitions like "bunker busters" and space-based weapons. Not to speak of its disarmament obligations as a state with "advanced nuclear technology." Presumably, silence on these issues is also part of the grand nuclear bargain.

US stamp on nuclear might

9 p. 6. 19/7

BHARAT BHUSHAN

Washington, July 18: In a step that puts India in an exclusive international league, the US has agreed to recognise the country as a nuclear weapons power.

It said India was "a responsible state with advanced nuclear technology" and that the country "should acquire the same benefits and advantages as other such states".

This clears the way for Indo-US cooperation in civilian nuclear energy, including fuel for the Tarapur Atomic Power Plant. To enable this process, President George W. Bush has committed to seek agreement with the US Congress to change the requisite laws and policies.

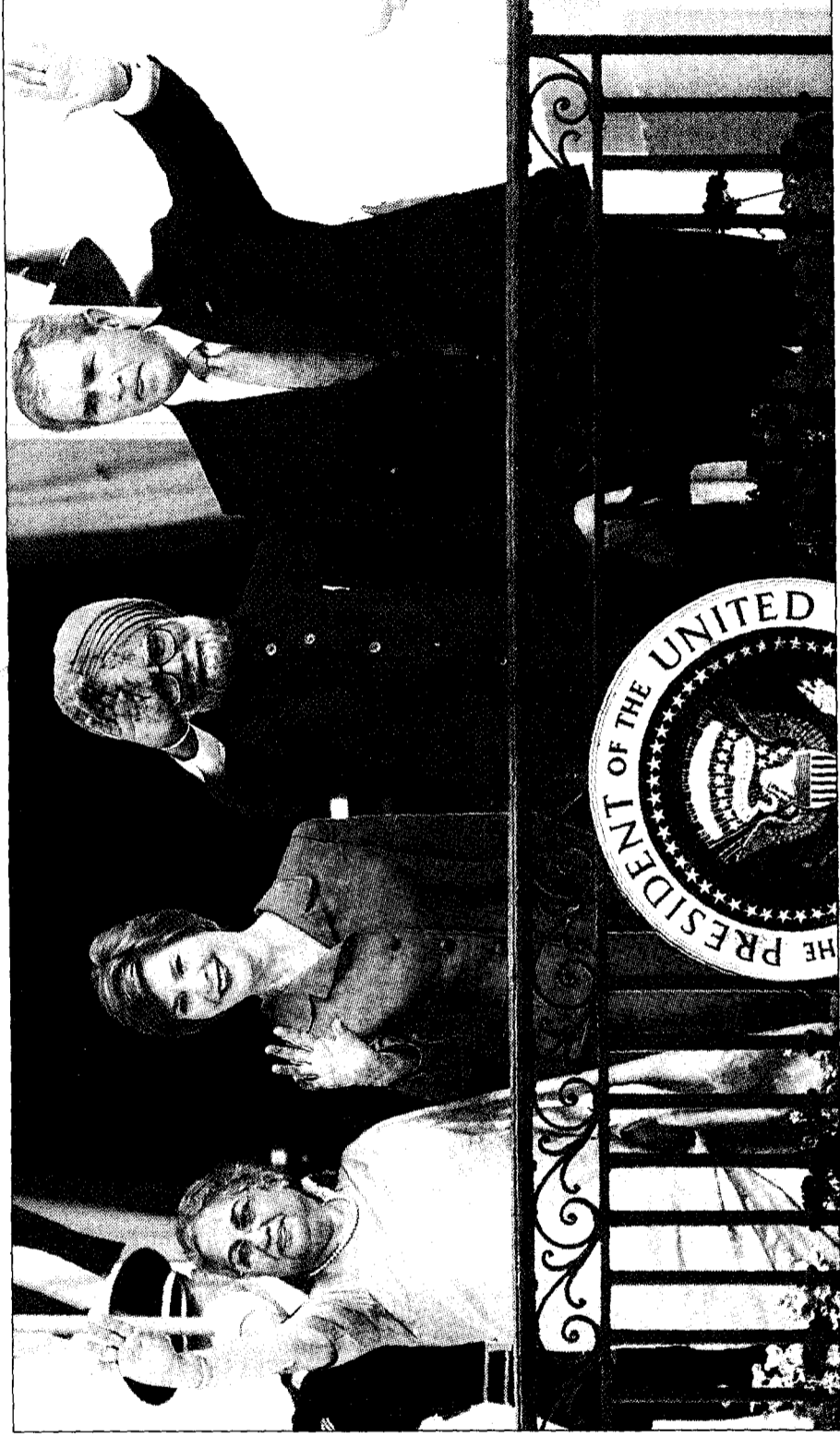
In a joint statement issued here today, the US also committed itself to "work with friends and allies to adjust international regimes to enable full civil nuclear energy cooperation and trade with India, including, but not limited to, expeditious consideration of fuel supplies for safeguarded nuclear reactors at Tarapur".

That the fuel for Tarapur may not come from the US but perhaps from Russia or elsewhere was indicated by the joint statement. The US would "encourage its partners to also consider this request", it said.

On its part, India has agreed to certain obligations. It has agreed "to assume the same responsibilities and practices and acquire the same benefits and advantages as other leading countries with advanced nuclear technology, such as the United States".

This would entail the following actions on the part of New Delhi: identifying and separating civilian and military nuclear facilities with the

MORE THAN STRATEGIC PARTNERSHIP ON DISPLAY



Prime Minister Manmohan Singh and President George W. Bush wave from the balcony of the White House with their wives Gursharan Kaur and Laura Bush after an arrival ceremony on Monday. (AFP)

NUCLEAR

Completing this (strategic) partnership will help us further enhance our cooperation in the areas of civil nuclear, civil space and high-technology commerce
— **GEORGE W. BUSH**

I thank the President on his personal role and interest in facilitating a solution to this complex problem
— **MANMOHAN SINGH**

KASHMIR

There is no change in US policy on the sanctity of LoC.... I am pleased with the progress made by the two leaders (Singh and Musharraf)
— **GEORGE W. BUSH**

There must be an international norm of zero tolerance to terrorism
— **MANMOHAN SINGH**

The working group would address the issue of "each country's peaceful nuclear energy-related initiatives, including national practices, research interests, approaches to regulatory oversight (American for supervision) and views of the role of nuclear energy in meeting global energy requirements".

India has been keen to join the International Thermonuclear Energy Reactor (ITER).

ence with Bush that the civilian nuclear issue had been resolved in a manner that gave him "great satisfaction".

The two countries have also decided to set up a civil nuclear working group to foster exchanges between the Department of Energy and Nuclear Regulatory Commission (NRC) of the US and India's Department of Atomic Energy and its Atomic Energy Regulatory Board.

that too. Bush reaffirmed the US policy on the "sanctity of the Line of Control" in Jammu and Kashmir. This is implicit backing of the Indian negotiating posture with Pakistan that any settlement of the Kashmir issue will not entail any territorial change.

That there was positive news in the offing on the nuclear front was indicated by Singh when he said in his White House joint press confer-

national efforts in this regard. India has agreed to take necessary steps to secure nuclear materials and technology through comprehensive export control legislation and by adhering to the Missile Technology Control Regime and the Nuclear Suppliers' Group guidelines. India will also sign an additional protocol on its civilian nuclear facilities.

If Prime Minister Manmohan Singh wanted more, he got

International Atomic Energy Agency (IAEA); putting its civilian facilities under LAEA safeguards; and continuing its unilateral moratorium on nuclear tests.

Besides, India will have to work with the US on implementing the Fissile Material Cut-off Treaty, refrain from transferring uranium enrichment and reprocessing technology to states that do not have them and support inter-

See Pages 6 & 8

Nuclear cooperation with U.S., experts urge caution

Terms of bargain must help, not hinder, Indian energy security.

Siddharth Varadarajan

WHEN PRIME Minister Manmohan Singh meets U.S. President George Bush in Washington on July 18, his attempt to push cooperation in the civilian nuclear field will face one big hurdle: Washington's desire to tighten the already restrictive global regime governing the transfer of nuclear-related material for civilian purposes.

No matter how important a position India has come to occupy in U.S. strategic thinking, Washington will be careful not to do anything that will weaken the non-proliferation initiatives announced by President Bush in February 2003. If anything, the ongoing crisis over North Korea and Iran has increased the salience of these initiatives and reduced the Bush administration's appetite for making exceptions.

U.S. embargo

The American embargo on the supply of civilian nuclear equipment to India is linked to both its domestic laws and its membership of the Nuclear Suppliers Group (NSG), Part I of whose guidelines prohibit the transfer of nuclear equipment to a country that does not accept comprehensive safeguards by the International Atomic Energy Agency (IAEA) at all its nuclear facilities.

Though domestic law can be waived and adherence to the NSG guidelines is voluntary, the question of whether or not the Bush administration will reverse itself on the supply of civilian nuclear equipment will depend on its assessment of how this would impact on its wider counter-proliferation initiatives. Making an exception for India — without India granting something in return — would likely make its task of tightening the NPT-plus regime harder.

IAEA safeguards

Among American analysts, Selig Harrison and Ashley Tellis have suggested that the best way for the U.S. to integrate India into the global non-proliferation order as a *de facto* nuclear weapons state and allow it access to nuclear equipment and fuel is to insist that all existing and future power reactors be safeguarded by the IAEA.

The Indian atomic establishment is, however, wary of safeguards except at any new facility that is created with outside equipment or help.

Pointing to the importance of the indigenous fast-breeder reactor (FBR) programme, A.N. Prasad, former director of the Bhabha Atomic Research Centre (BARC), told *The Hindu* the suggestion of allowing safeguards "goes against the national interest." "Since FBRs will be the mainstay of India's nuclear power programme for some time, and since there is a lot to be established for the first time and improved upon to achieve a level of maturity required to make it a success, bringing in safeguards at this stage just because they are civilian nuclear facilities will seriously hamper our efforts and cut into our freedom to pursue the development of this programme."

He said that "only those who have hands on experience in operating such

facilities and also dealing with intrusive safeguards can fully appreciate this aspect" and warned that the issue "should not be taken lightly."

Dr. Prasad also said that the suggestion made in some quarters about separating civilian and military facilities for safeguards purposes is not feasible.

Given the "small scale of the military activities involved," dedicating reactors for a single purpose "is not only impractical but also not cost effective."

In the context of the Prime Minister's visit to Washington, Dr. Prasad said any change in U.S. policy on the nuclear supplies front should be "carefully assessed to see if there are any unacceptable conditions." At no point should India "compromise the basic inherent strength so relentlessly built over the years under heavy odds."

Dr. Prasad's concerns were echoed by other serving and retired Department of Atomic Energy officials who said India needed U.S. support for its nuclear energy sector only to supplement planned capacity and facilitate the supply of fuel, particularly natural uranium. The DAE establishment insists the FBR must be the mainstay of the Indian nuclear power programme and that any light water reactors that Russia, France or the U.S. might supply will be an "additionality."

Scepticism

There is scepticism about the outcome of the Prime Minister's visit on the nuclear front. Joining issue with Ashley Tellis' recommendations that the easiest thing for the Bush administration to do is to invite India to join ongoing research programmes for next generation prototype reactors, a senior DAE official said that India needed fuel and equipment today.

Experimental projects like fusion energy (ITER) or the Radkowsky Thorium Fuel programme may yield dividends three or four decades from now. "In any case, when Radkowsky came here, it was clear that we are quite ahead on that front," the official said. "As for ITER, the Europeans have already invited us to join and they are very keen. An American endorsement is not a big deal."

A. Gopalakrishnan, former chairman of the Atomic Energy Regulatory Board, is not convinced India should be looking at the U.S. for light water reactors even as an "additionality." "We are deep into our three-stage programme and you cannot just turn it off," he said. "The nuclear power sector is not like 'aviyal' where you can mix all kinds of reactors. Inter-transferability of engineers is an issue. Besides, to run the LWRs safely, we will need to have our hands held for a long time. Can we rely on the Americans to do that?"

The critical issue for India right now, he says, is the shortage of natural uranium for its pressurised heavy water reactors. If the U.S. wants to help, it should facilitate the purchase of uranium, he says. India should also think of approaching Niger and Namibia, two countries with enormous reserves of uranium, which are not members of the NSG.

Implicit acceptance of India's N-status: Saran

Press Trust of India

WASHINGTON, July 19. — Highly satisfied with the US decision to lift sanctions imposed on it 31 years ago in the wake of Pokhran nuclear tests, India has asserted that commitments given by it in return were not "too onerous" and were exactly what other nuclear weapon states had accepted.

Recognition of India as a "responsible state with advanced nuclear technology" by President George W Bush and his decision to supply fuel for nuclear reactors at Tarapur, as outlined in the joint statement issued with Prime Minister Dr Manmohan Singh here yesterday, are being seen as an implicit acceptance of Delhi's nuclear weapons status.

"What has been achieved is the recognition by the USA that, for all practical purposes, India should

have the same benefits and rights as a nuclear weapons state," foreign secretary Mr Shyam Saran said at a media briefing on the outcome of Singh-Bush discussions yesterday.

The reciprocal obligations undertaken by India, such as separating its civilian and military nuclear facilities and voluntarily placing the former under safeguards of the International Atomic Energy Agency, were "no more or no less" than those committed to by any other nuclear weapons state, he said.

Mr Saran maintained that dismantling of restrictive regimes to which India was subjected since the 1974 nuclear test and the decision to supply fuel for Tarapur was "a major breakthrough". It was also recognition of "India coming of age", he said and added that this would enable Delhi to shop for fuel not only for Tarapur but for other civilian reactors too.

Any apprehension that the obligations accepted by India in return were "too onerous" would be a "misperception," Mr Saran told a questioner, adding India would never accept conditions unacceptable to others.

It would not be an exaggeration to say that the discussions between Dr Singh and Mr Bush and their outcome marked a transformation of bilateral ties, the foreign secretary said and added that the joint statement represented a "very substantive and significant outcome". The outcome of talks between the US President and the Indian Prime Minister had "exceeded our expectations," Mr Saran said, adding the two leaders enjoyed excellent personal chemistry.

Terrorism was high among the wide range of topics covered by the two leaders who met in the wake of the recent terrorist strikes in Ayodhya and London.

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THE STATESMAN

A- Nucleon Chemistry Point **New clear policy** *H-6 2/7*

THE CHANGED US position on nuclear issues means that India's nuclear power programme can pick up some badly needed steam. Besides fuel for Tarapur, New Delhi now also has an opportunity to shop for reactors in the international market, and participate in frontier research like the International Thermonuclear Experimental Reactor (ITER) and the G IV advanced reactor programme. The futuristic ITER seeks to use deuterium — a form of hydrogen found naturally in seawater — as fuel to produce fusion energy. Fusion energy offers many advantages over 'conventional' nuclear power, which works by fission, as it would neither emit greenhouse gases like fossil fuel power stations nor create the highly radioactive waste as in current nuclear power plants.

These changed circumstances will help India to put behind it the crippling sanctions that its nuclear programme has faced and take a closer look at its atomic ambitions. The plan to increase

India's current 2.5 GWe of net nuclear generating capacity to 20 GWe by 2020 is not only challenging, but is probably just a drop in the ocean of its needs for clean and reliable sources of energy.

India's nuclear programme comprises three stages for the optimised use of a very limited uranium base, and extensive thorium reserves. The first stage of pressurised heavy water reactors (PHWRs) is established, while the second stage with fast breeder reactors (FBRs) is yet to take off. The crucial third stage using thorium is even more distant. As of now, despite achieving self-sufficiency in the nuclear fuel cycle from exploration and mining through fuel fabrication, heavy water production, reactor design and construction, to reprocessing India's weak uranium resource base is still its Achilles' Heel. The breakthrough in Washington — along with the access to global technological developments it will provide — has come as a saving grace for India's ambitious atomic programme.

20... THE...

The India-America nuclear dialogue

R. Ramachandran

IF ONE were to believe recent media reports in general, the upcoming visit of Prime Minister Manmohan Singh to the United States, beginning July 18, is likely to result in a major Indo-U.S. announcement on the nuclear front. Nuclear matters came to focus soon after the visit of U.S. Secretary of State Condoleezza Rice in April when Washington sought to broaden the strategic partnership beyond the ongoing Next Steps in Strategic Partnership (NSSP) initiative to include nuclear energy as well.

A realistic analysis would, however, suggest that little can be expected out of this India-U.S. nuclear dialogue, unless the latter can prevail on the 44-member Nuclear Suppliers Group (NSG) to relax its guidelines and also change its own domestic laws. In fact, even under the NSSP, the U.S. has been inflexible in relaxing controls on the export of a class of nuclear-related dual-use goods — the so-called NP2 controlled items — which could have been easily done without violating its domestic laws or NSG Guidelines.

The NSG Guidelines are an essential component of the current non-proliferation regime that is built around the tenets of the Nuclear Non-Proliferation Treaty (NPT). These require imposition of full-scope safeguards (FSS) of the International Atomic Energy Agency (IAEA) on all current and future peaceful nuclear activities of a non-nuclear weapon state (NNWS) for transfer of equipment, material, and technology directly related to the nuclear fission fuel cycle. This includes the source of the fissionable material, namely uranium ore or the processed yellow cake, as well.

What India needs

What is it that the Indian nuclear programme critically needs today from the global nuclear suppliers? It is not technology or reactors or cooperation in safety-related matters. It is access to nuclear fuel, both natural uranium — which has 0.7 per cent of fissionable uranium-235 — for the indigenous pressurised heavy water reactors (PHWRs) and low enriched uranium (LEU) — with 2-3 per cent U-235 — for the Tarapur light water reactors (LWRs), TAPS-1

While nothing substantive is likely to result from the Indo-U.S. nuclear dialogue, the climate is opportune to resolve the contentious issue of spent Tarapur fuel.

and TAPS-2 (see *The Hindu*, December 18, 2004).

With the current uranium mines at Jaduguda fast depleting, local opposition has prevented the Department of Atomic Energy (DAE) from exploiting the potential mining sites in Andhra Pradesh and the Northeast for the future natural uranium needs of its PHWRs. As regards LEU for Tarapur, the one-time supply in 2001 by Russia — for which it was severely reprimanded by the NSG — is likely to run out in 2006. China, which had supplied LEU in 1995, is an NSG member since May this year. So for both kinds of fuel, the DAE will soon face a real crunch.

The Indian nuclear tests notwithstanding, India is an NNWS as per the NPT definition and access to nuclear material or technology would, therefore, attract FSS. Of the 15 currently operating nuclear plants, only TAPS-1&2 and RAPS-1&2 (in Rajasthan) are under IAEA safeguards. The two upcoming Russian LWRs at Koodankulam will also come under safeguards. But it is too simplistic to assume that, despite U.S. global clout in nuclear matters, all other 43 countries will immediately agree if the U.S. were to suggest that the NSG Guidelines be relaxed for India.

The occurrence of the word 'peaceful', however, allows NSG Guidelines to be interpreted to India's advantage, provided India offers to put all the peaceful nuclear activities under safeguards. The NSG is more likely to accord a *de facto* nuclear weapon state status to India and allow export of nuclear goods to India under this condition than relax its guidelines. But, despite serious problems of fuel facing the nuclear programme today, the DAE does not seem to be doing any serious thinking in this direction. It is, therefore, wishful thinking to expect anything substantive out of this Indo-U.S. nuclear dia-

logue at least as far as the current generation of nuclear reactors is concerned. But what about future generation technologies?

In a recent testimony to the House Committee on International Relations, Ashley Tellis of the Carnegie Endowment for International Peace and part of the U.S. think-tank on South Asia, has suggested the following:

- The U.S. should invite India to participate in International Thermonuclear Experimental Reactor (ITER), Generation IV and Radkowsky Thorium Reactor (RTR) research programmes.
- Pending a permanent solution to the problem, the U.S. should permit India to purchase LEU for TAPS-1&2.

The second suggestion is unrealistic for the simple reason that U.S. permission alone is not sufficient; it requires NSG consensus. Having criticised Russia for its supply in 2001, a collective favourable response from the NSG would be unlikely. Any possible paradigm shift in the NSG's thinking and policies towards India (as also Israel and Pakistan), following recent Indian initiatives towards effective export controls on sensitive goods and technologies, cannot be expected in the near term.

ITER is an international programme to develop nuclear power systems of the future that exploit nuclear fusion, the process that enables stars to shine. The participating entities in this are the EU, the U.S., Japan, China, South Korea, and Russia. Since all nuclear weapons, including thermonuclear or fusion weapons, require fissionable material, and all controls relate only to fissionable material, collaboration in pure fusion research should not pose any proliferation concerns. Already the EU, Britain, and France, in particular, and Russia have extended their support in principle to Indian participation. U.S.

support would, therefore, strengthen the case for Indian participation.

Generation IV nuclear technology is aimed at developing systems that will provide clean, safe, proliferation and terrorism-resistant and cost-effective means of generating nuclear power on a sustainable basis. This is also being pursued as an international venture with ten participating countries — the U.S., Argentina, Brazil, Canada, France, Japan, South Korea, South Africa, Switzerland, and the U.K., along with the EU. All the six concepts that have been evolved so far are fission based. Therefore, all the controls that apply to currently operational nuclear reactors will apply to these as well. Moreover, all the participant countries are NSG members. So any proposal for Indian participation will run into the familiar roadblocks.

RTR is an interesting concept developed by Alvin Radkowsky, a pioneering U.S. nuclear scientist who later moved to Israel and became its citizen, for utilising thorium (Th-232). The basic idea is a once-through fuel cycle that converts Th-232 to U-233 in a thermal LWR and allows the bred U-233 to burn *in situ*. The concept obviates the intermediate stage of reprocessing spent fuel and burning the separated plutonium (Pu-239), with a Th-232 blanket, in a fast breeder reactor. Because Pu-239 is never separated, the technology is said to be proliferation resistant. Crudely, one could think of it as all the three stages of the Indian programme rolled into one design.

Though the concept is old, it could not be implemented till recent times because it requires a very high uranium burn-up of over 40,000 megawatt-day/tonne. Advances in reactor technology have now made this achievable, but efficient breeding requires much higher uranium enrichment than usual. Experimental RTR is now an international programme under Brookhaven National Laboratory. The Russian Kurchatov Institute is a major participant because of easy retrofitting in VVER reactors (of the Koodankulam kind) to implement the Radkowsky concept.

RTR could be of interest to India in the long term, according to Atomic Energy Commission Chairman Anil Kakodkar. Also, since RTR has not been investigated in PHWRs, India could pioneer that initiative. However, since RTR depends crucially on enriched uranium, participation here too is likely to be denied.

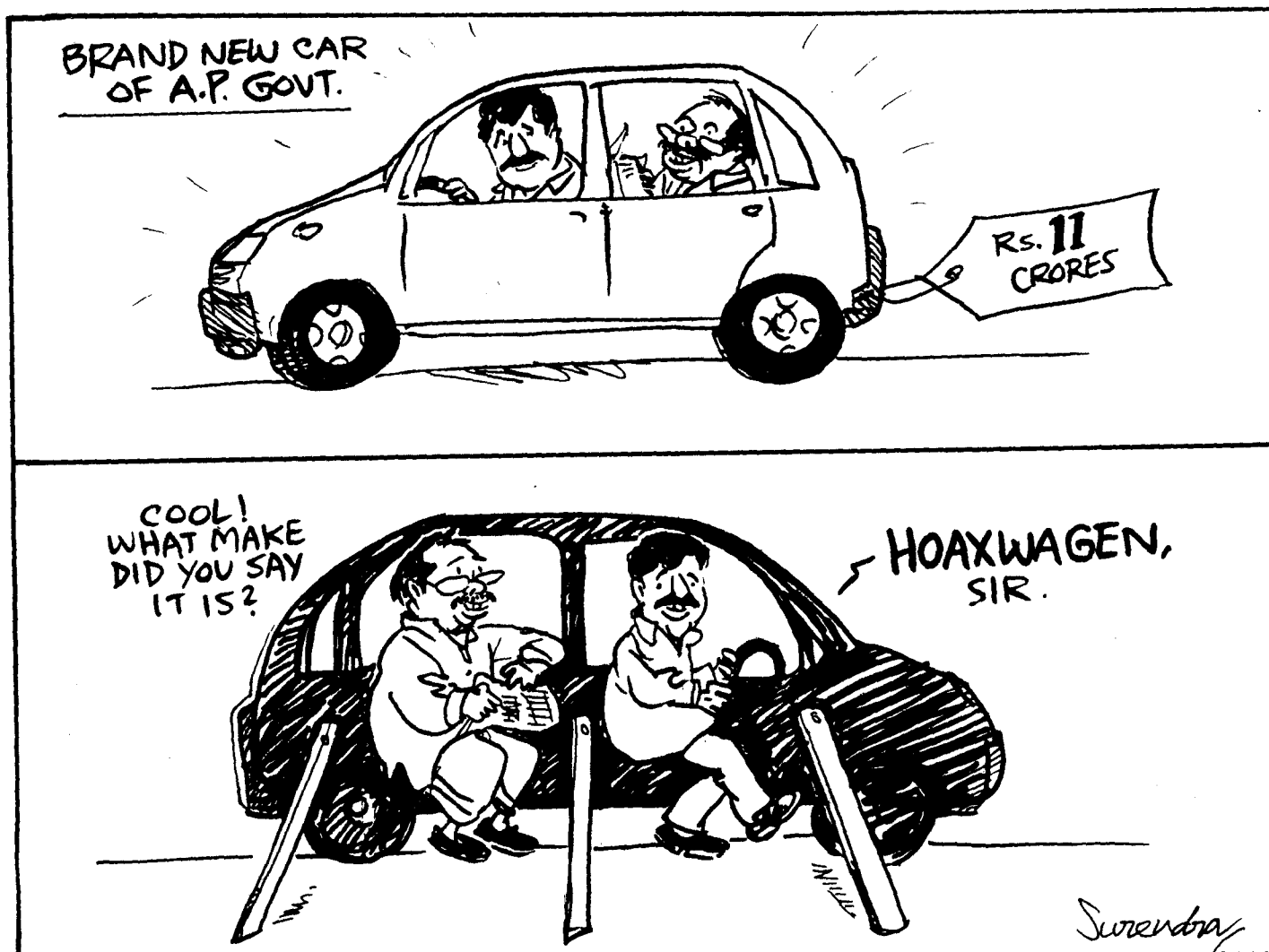
But hang on! One of the participating institutes in the RTR project is Ben Gurion University, Israel. Since Israel too is an NPT non-signatory, if Israel could be allowed to participate, India should also be allowed to. How the U.S. disregarded its domestic law in this case is not quite clear. Apparently when the U.S. wanted Radkowsky to help in the programme, he insisted that his institution should also be party to that. India should, therefore, cite this curious precedent and try to seek participation in the RTR project on analogous grounds.

So among all the possible areas of nuclear cooperation, U.S. support to India's entry into ITER appears to be the most likely. RTR may be possible if the U.S. decides to treat India on a par with Israel.

In all this India-U.S. nuclear talk, curiously enough, both India and the U.S. have been reluctant to raise the contentious issue of the American spent fuel at TAPS, huge quantities of which lies accumulated in the water pool. According to the original 1963 agreement, the U.S. has the first right to take it back failing which any reprocessing can be done only after a joint determination. Under the current more conducive climate of dialogue, the U.S. should be urged to take back the fuel. There are no domestic laws or NSG Guidelines to contend with here and could mark a significant step in building mutual confidence in nuclear matters.

If U.S. rejects the proposal, India could seek to reprocess the fuel now and kill two birds with one stone. The separated reactor-grade Pu-239 could be used for introducing as MOX fuel in TAPS. More importantly, the separated uranium — which will still have an enrichment of one per cent — is eminently usable as fuel in PHWRs, subject to some physics considerations, instead of natural uranium. The most suitable candidate for this would be RAPS reactors, which are already under safeguards, and would partially offset the squeeze on natural uranium for PHWRs.

CARTOONSCAPE



Parliamentary approval for WMD Bill

To prevent weapons transfer; policy not to induce other nations to develop nuclear weapons

Nuclear Energy Policy

Special Correspondent

NEW DELHI: Parliament has approved the Weapons of Mass Destruction and their Delivery System (Prohibition of Unlawful Activities) Bill, 2005 with its passage in the Rajya Sabha on Friday. The Bill seeks to prevent transfer of weapons of mass destruction and their technology from India. The Lok Sabha passed it on Thursday.

Replying to discussion, External Affairs Minister Natwar Singh assured the Rajya Sabha that India remained and "will remain a responsible nuclear power." The country was fully committed to safeguarding its security as a nuclear weapons state and deepening its scientific capability to meet security imperatives as well as developmental goals.

To check leakage

The Bill sought to check not the development of missile technology but the leakage of technology. "Our policy is not to encourage and induce other nations to develop nuclear weapons."

Pointing to vacant benches, Mr. Singh wished that the Opposition members had participated in the debate on the issue of national importance.

Responding to a suggestion by Jairam Ramesh (Congress) that confidence-building measures with Pakistan and China in the field of nuclear and missile defence be converted into treaties, he said it could be considered.

India's basic tenet and top priority was the pursuit of global

India is committed to safeguarding its security as a nuclear weapons state and deepening its scientific capability to meet its security imperatives.

nuclear disarmament. The country did not sign the Nuclear Proliferation Treaty as it was discriminatory and unbalanced. "India remains committed to maintaining transparency and credible minimum deterrent. We even came out with no first use of nuclear weapon," Mr. Singh said referring to Pakistan's nuclear capability that reduced India's superiority in that field.

Delay denied

Mr. Singh disagreed with some members, who felt that the Bill had been delayed. United Nations resolution 1540, which made it mandatory for all member-nations to enact such a law to prevent trafficking in nuclear, chemical and biological weapons, was passed in April last. The Government had to consult a large number of departments and ministries to draft the Bill.

Responding to an apprehension expressed by K. Malaisamy (AIADMK) that such deadly weapons could fall into hands of terrorist outfits such as the Liberation Tigers of Tamil Eelam, Mr. Singh assured him that it

would not happen. On enforcement of the legislation, he said the Cabinet Secretariat would be the nodal body for supervision and the External Affairs Ministry would be closely associated.

Earlier, members favoured India pursuing an independent course in dealing with Weapons of Mass Destruction (WMDs) rather than buckle under international pressure.

A Vijayaraghavan (CPI-M) said India, apart from being a nuclear power, was one of the founder-members of the Non-Aligned Movement. Some coun-

tries were posing as fighters against terrorism after encouraging terrorists and terrorism.

Ashwini Kumar (Congress) disagreed with the suggestion that the WMD Bill came under external pressure. It "is a right step in right direction" and fulfilment of Rajiv Gandhi's dream in progressing towards total disarmament.

Describing the Bill as "timely and appropriate," K. Kasturirangan, former Chairman of the Indian Space Research Organisation, said India had the strong technological foundation

laid by Homi Bhabha and Vikram Sarabhai and it developed technology without outside help. "Despite having this technology, the country never thought of commercialising it. We have resisted these temptations and are only reiterating what we have followed."

Mr. Jairam Ramesh said the Bill was not a feather in India's cap. It should have been brought in much earlier. Saifuddin Soz disagreed with his party colleague and said it was a "necessary mechanism" which came well in time.

No constriction on nuclear programme, says External Affairs Ministry

Diplomatic Correspondent

NEW DELHI: The passage in Parliament of the Weapons of Mass Destruction and their Delivery Systems (Prohibition of Unlawful Activities) Bill does not "in any manner constrict" India's nuclear programme — either strategic or civilian.

"India is determined to utilise advanced technology for its security," an External Affairs Ministry spokesman told presspersons. New Delhi was committed to meeting the nation's developmental requirements and people's needs.

It was an important piece of legislation in the light of

India's emergence as a "nuclear State". It was an integrated and over-arching piece of legislation and met India's commitments under the United Nations Security Council Resolution 1540 passed in April 2004.

To a question, the spokesman said it was a coincidence that the Bill was passed at a time when the Nuclear Non-Proliferation Treaty was being "reviewed" in New York.

During Thursday's debate in the Lok Sabha, Prime Minister Manmohan Singh said that for countries such as India to sustain the reasonably high rate of

economic growth that was required to eradicate poverty, energy could not be allowed to become a constraint.

"For us, nuclear energy is an important means to address this challenge. As such, we intend to maintain and expand our indigenous nuclear power programme. This would also ease the strain on conventional energy supplies globally. Since India's record in non-proliferation is impeccable and acknowledged to be so internationally, the current restrictions on cooperation in nuclear power production with India have become anachronistic and counter-productive," the Prime Minister said.

India and the Nuclear Suppliers Group

From the Indian perspective, maintaining a dialogue with the NSG is important to see if nuclear exports to India can be facilitated under conditions weaker than full-scope safeguards in the future.

R. Ramachandran

AFTER ITS visit to Israel in March and Pakistan early this month, the consultative team from the Nuclear Suppliers Group (NSG) is scheduled to visit India this week. The NSG consists of 44 member-countries and controls transfers of nuclear goods globally in accordance with two sets of Guidelines – I and II. All the members of the NSG are signatories to the Nuclear Non-Proliferation Treaty (NPT).

Guidelines I stipulate controls over transfer of items included in the NSG's Trigger List, which are meant for direct nuclear use such as nuclear material, fuel-cycle related equipment and reactors, non-nuclear material for reactors and equipment and technology meant for reprocessing, enrichment, fuel fabrication and heavy water production. For transfer of such items to a non-nuclear weapons state (NNWS), the controls require full-scope safeguards (FSS) of the International Atomic Energy Agency (IAEA) on all the nuclear activities of the recipient country.

Guidelines II lay down conditions for transfers of nuclear-related dual-use items and these require only end-use statement and item-specific safeguards.

The definition of a nuclear weapon state for the NSG's purpose is the same as that in the NPT; namely, that which has exploded a nuclear device before January 1, 1967. From the NSG's perspective, therefore, India, Pakistan and Israel are NNWSs.

This is not the first time that India is holding discussions with the NSG. The last such meeting took place on April 7, 2004, when issues of proliferation and peaceful uses of nuclear energy were taken up. It was also decided during that meeting that India would have a regular dialogue with the NSG.

The NSG's dialogue with non-NSG member-countries is part of its "outreach" programme that seeks to engage in consultations with non-member countries because of proliferation concerns. In 2001, the NSG Chair was authorised to constitute a consultative group comprising the current, the predecessor and the next chairs of the NSG for engaging in this dialogue process. The visiting team will be led by Richard

Ekwall of Sweden, the present NSG Chair, who will be accompanied by representatives of the Republic of Korea (the past Chair) and Norway (Chair after June 2005). The visit is likely to be on April 26.

The agenda for the current meeting concerns domestic export controls on nuclear goods. This issue has gathered importance after the disclosure of Dr. A.Q. Khan's illegal nuclear network operating across continents. Also, given the fact that it follows the first-ever visits to Israel and Pakistan, the visit may be more significant.

It may be pointed out that both Israel and Pakistan have communicated their domestic export laws to the IAEA last year, which have been circulated by the IAEA as INFCIRC/632 and INFCIRC/636 respectively. In their bid to be regarded as "unilateral NSG adherents" – first step towards the NSG's recognition of their non-proliferation credentials – both have claimed conformity of their laws with NSG Guidelines. Israel's law came into force on July 1, 2004, and Pakistan's law came into force on September 23, 2004.

Though India has formulated its export controls on sensitive items in 1995, which has been subsequently revised on April 1, 2000, it has not communicated it to the IAEA. Also, the law is currently undergoing another revision. This follows the U.N. Security Council Resolution 1540 of April, 2004, that calls for harmonised global export controls to prevent proliferation of weapons of mass destruction (WMD).

India too believes that the so-called SCOMET list under the April 2000 law, together with the items controlled under the Atomic

Energy Act of 1962, control all nuclear goods effectively. However, perceptions of key NSG members, especially of the U.S. as evident from its discussions under the Next Steps in Strategic Partnership (NSSP) initiative, differ on this count.

In NSG's future deliberations, particularly after the NPT Review Conference in May, two issues may assume importance. In 2000, Russia had proposed the creation of "associate membership" to non-NSG members who are not NPT signatories but have significant nuclear capability and are potential nuclear suppliers, such as India, Israel and Pakistan.

Recently, in its position paper last year for the NPT Review Conference due in May, France has proposed that the NSG avoid unduly stringent export controls for non-sensitive nuclear goods, such as low enriched uranium reactor technology and reactor control equipment, if the recipient non-NSG member-country has adequate export controls. Also, it has called for following what are known as Zangger Rules rather than the NSG Guidelines for all nuclear exports. Zangger Rules require only facility-specific safeguards and not FSS.

From the Indian perspective, maintaining such a dialogue with the NSG is important to see if nuclear exports to India can be facilitated under conditions weaker than FSS in the future. It may be pointed out that earlier India had been not too keen on NSG visits. Clearly, there has been a change of heart in this regard in recent years. Interestingly, the same has been true of Pakistan as well. A NSG team visited Pakistan for the first time during April 11-12 after initial resistance.

The new Pope's conservatism

His experience with student protests at Tuebingen University seem to have pushed Joseph Ratzinger definitively toward deep conservatism and insistence on unquestioned obedience to the authority of Rome.

Richard Bernstein, Daniel J. Wakin, Mark Landler

FOR ALL Pope Benedict XVI's decades as a Vatican insider, it may have been the crucible of a university town swept by student radicalism in the late 1960s that definitively shaped the man who now leads the Roman Catholic Church.

During his Bavarian childhood under the Nazis, Joseph Ratzinger became convinced that the moral authority based in Catholic teachings was the sole reliable bulwark against human barbarism, according to friends, associates, and his biographer, John L. Allen Jr.

But while his deep reading and thinking in theology, philosophy, and history were fundamental to development as a theologian, it was the protests of student radicals at Tuebingen University – in which he saw an echo of the Nazi totalitarianism he loathed – that seem to have pushed him definitively toward deep conservatism and insistence on unquestioned obedience to the authority of Rome.

Formulated doctrines

Before he arrived at the university, he had spent most of his time writing books and teaching in the Catholic theology departments of several German universities. His growing reputation was enhanced by the prominent role he was said to have played at the Second Vatican Council called by Pope John XXIII in 1962 to formulate doctrines for the Church in the modern world.

When he arrived at Tuebingen in 1966, he was viewed as a reformer, a man who wanted to open the Church up to dialogue with others in the world.

But in his autobiography, he shows that the Vatican Council also alerted him to what he deemed dangerous liberalising tendencies from inside the Church and to the danger that reform, if not tightly controlled by a guiding authority, can quickly go awry.

The idea of the "church from below," which led to liberation theology, was being born and, as he puts it, "I became deeply troubled."

So he was already deeply suspicious of the Left wing inside the Church, when, in 1966, he joined the Catholic Theological Faculty of Tuebingen University.

He had been recruited by the liberal Swiss theologian, Hans Kung – the man who became, and remains, one of his chief political and theological rivals. Kung was disciplined by the Vatican just before the future Pope arrived at the Vatican.

The experience of the student revolt seemed to confirm every suspicion that Ratzinger already nurtured about liberalising tendencies and the hidden germ of totalitarianism lurking within revolutionary movements. "Marxist revolution kindled the whole university with its fervour, shaking it to its very foundations," he wrote of the atmosphere at the university, which was rocked by a student rebellion against authority.

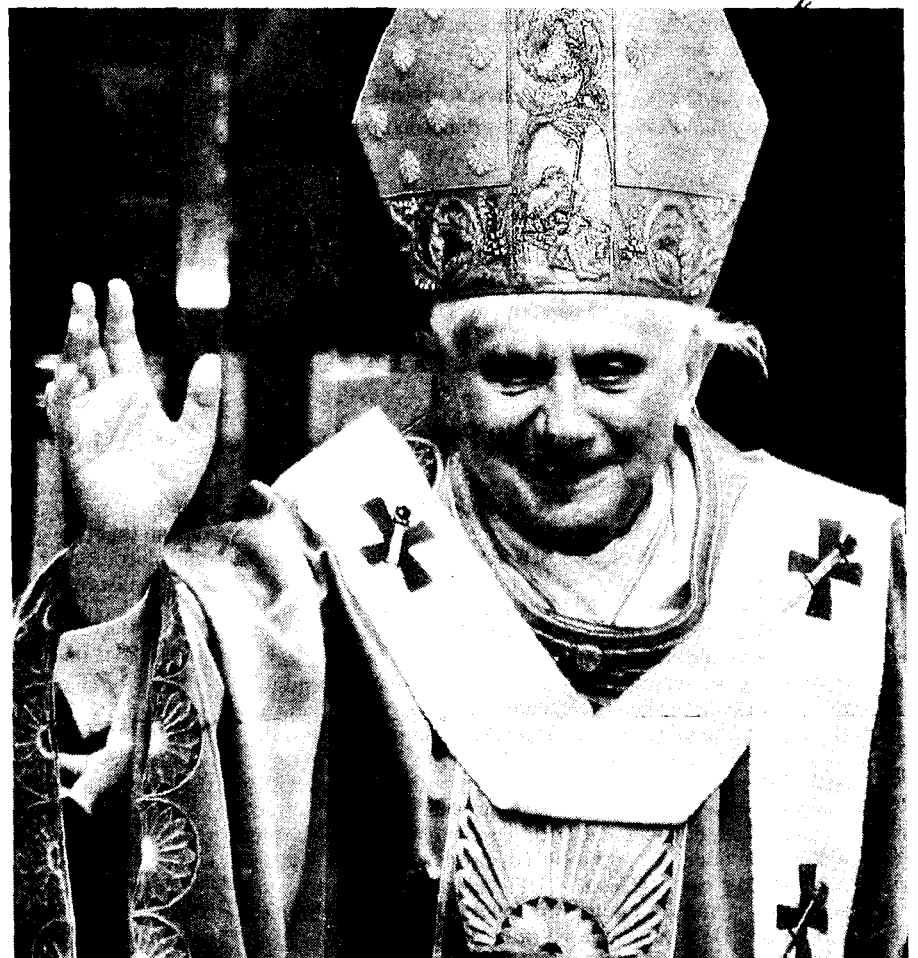
His fellow faculty members describe a complicated picture of the time, and a very complex Joseph Ratzinger, who was just shy of 40 years old.

Some remember that the students behaved barbarically; others that they behaved like young idealistic people, carried away by naive fervour but in no way dangerous to the established order.

One thing they seem to agree on is that Ratzinger had a bad reaction to the protests, which one former colleague, Dietmar Mieth, said he saw as the terrorism of the street. He was troubled most particularly by the demands from within the theology departments for democratisation of the church, notably from Kung's students.

Prof. Mieth remembered a time when perhaps 25 students invaded a meeting of the faculty senate at Tuebingen. Most of the faculty, he said, took it in their stride and talked with the students.

Only one, he said, picked up his things and



Pope Benedict XVI waves during his first mass in St. Peter's Square at the Vatican on Sunday. – PHOTO: AFP

left, and that was Joseph Ratzinger.

Max Seckler, then the dean of the Catholic Theological Faculty and now professor emeritus at Tuebingen, put the student protesters in a darker light, and recalled a particular challenge to the new professor. "The university was in chaos," he said. "It was horrible. The students kept professors from talking. They were verbally abusive, very primitive and aggressive, and this aggression was especially directed against Ratzinger. He had the most students coming to his lectures, but his personality was a magnet for this aggression. He had something fascinating about him, and this made him an object of hatred."

Prof. Seckler said an intellectual debate played to Ratzinger's strengths. "There was a special problem with Ratzinger," he said. "He's very good, very strong in an argument, in discussion, but when he is confronted by vulgar aggression, he doesn't know how to handle it. The students felt this and saw it as his weak point."

But others who know his theology argue that while Ratzinger may have deepened his belief in the need for a kind of absolute authority of the Church, he was not conser-

vative. Rather, they say, he was a consistent believer in his view of the reforms that were developed by the Second Vatican Council.

As chief adviser to Pope John Paul II, he may have been an enforcer of orthodoxy in doctrinal matters, but he championed dialogue with Jews and Muslims and played a major role in John Paul's celebrated admissions of Church error.

Nuanced writing

Ratzinger's writings, which are full of intellectual nuance and shadings of meaning, show a ready acknowledgement of changes in the Church's positions over the years – leaving behind, for example, the idea that it is a sin to enjoy sex, or that women are inferior. But his efforts to place greater control on national bishops' conferences – to prohibit their issuing of doctrinal opinions without Rome's authority – reflect a belief that, however the Church changed, the changes had to come not from below but from the unquestioned authority above. – *New York Times News Service*

(Contributions from Elisabetta Povoledo of *The International Herald Tribune* and Jason Horowitz.)

India is a responsible nuclear power: Manmohan

India will not be a source of proliferation of sensitive technologies

Special Correspondent

NEW DELHI: India is a responsible nuclear power, the Prime Minister, Manmohan Singh, reassured the international community on Tuesday.

"Our message to the international community is ... loud and clear — India is willing to shoulder its share of international obligation as partner against proliferation provided our legitimate interests are safeguarded," Dr. Singh said at a Defence Research and Development Organisation function. He cited the parliamentary approval last week for the Weapons of Mass Destruction and their Delivery System Prohibition of Unlawful Activities Bill.

Dr. Singh said that "in the defence field and the nuclear field, our strategic programmes are indigenous and not dependent on external sources of support.

Nor can they be the subject of externally imposed constraints. Within these parameters, India prepared for the broadest possible engagement with the international non-proliferation regime." The Prime Minister's remarks assume significance in the context of the 2005 Review Conference on the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, which began this month at the United Nations Headquarters in New York. India is not a signatory to the NPT.

Describing the anti-proliferation Bill passed by Parliament comparing "favourably with the best global standards on non-proliferation," Dr. Singh asserted that "India will not be, and I repeat, will not be a source of proliferation of sensitive technologies." Telling international suppliers of high technology that they have nothing to fear, Dr.

• **Willing to shoulder international obligation if our legitimate interests are safeguarded**

• **Our strategic programmes are indigenous, not dependent on external sources of support**

Singh pointed out that the Bill only stressed "our unblemished non-proliferation record and our abiding commitment to non-proliferation principles."

He noted that the proposed law puts in place a regime of "strict regulation of external transfers and tight control to prevent internal leakage."

Regretting that "bilateral and multilateral technology denial

regimes targeting India still remain by and large in place," the Prime Minister noted that such regimes were "contrary to the logic of globalisation." He told the defence scientists that "we must continue to refine our capabilities to stay abreast of the cutting edge of knowledge and human endeavour."

The Prime Minister urged the DRDO officials and scientists to think of the private sector as a partner in defence production. "Given the expansion of our private sector, both in technical and financial terms, we are at the threshold of a future in which the private sector contributes to the national cause of high technology defence.

There is need for a new institutional framework to involve the private sector, to ensure continuous dialogue as well as to provide incentives for risk-taking."

1 E MAY 2005

THE HINDU

AASU seeks minority help in weeding out migrants

SAMUDRA GUPTA KASHYAP

GUWAHATI, JULY 18

THE All Assam Students' Union (AASU), whose jubilation over the recent Supreme Court verdict quashing the Illegal Migrants (Determination by Tribunal) Act created panic among minorities, has sought their cooperation in quickly identifying post-1971 migrants.

AASU has also joined the Coordination Committee of Minority Organisations (CCMO), an umbrella body of 12 minority outfits in Assam, in criticising certain political parties (read BJP) for allegedly fomenting communal tension by classifying the migrants as Muslim infiltrators and Hindu refugees.

Senior AASU leaders, including advisor Samujjal Bhattacharyya, yesterday had a marathon discussion with representatives of the 12 minority outfits. A joint declaration was issued saying all migrants who entered Assam after March 25, 1971 must go. AASU and CCMO also demanded

that the National Register of Citizens (NRC) be updated on the basis of the state's 1971 electoral rolls so that names of all illegal migrants can be struck off.

Earlier, the CCMO expressed dissatisfaction over the Congress' alleged failure to ensure the IMDT Act survived.

AASU advisor Bhattacharyya has mildly warned the BJP not to foment tension, saying the student body would not tolerate this.

Meanwhile, Hafiz Rashid Ahmed Choudhury, a prominent minority leader and president of the United Minorities Front of Assam, has said there is no reason for migrants to panic because the BJP is trying to divide them along religious lines. Choudhury slammed Assam's Congress government for allegedly trying to create a rift between the pre-1971 migrant population which have already been accepted as Indian citizens under the provisions of the 1985 Assam Accord.

Orbiting the NPT

IF there is a moment for India to signal its strong support to an effective global regime on non-proliferation, it is now. Yesterday the month-long Seventh Review Conference of the Nuclear Non-Proliferation Treaty got underway at the United Nations in New York. Any suggestion that India should be sending a reconciliatory message to the NPT system, which has for long symbolised the essence of India's nuclear problems with the world, would surprise many Indians.

When global consensus was reached on the indefinite and unconditional extension of the NPT, exactly ten years ago, New Delhi seethed with anger. Fortunately it had a sensible fallout in helping India overcome one of its fondest illusions — that universal nuclear disarmament will one day replace the discriminatory non-proliferation order. Amidst the shattering of its disarmament illusions, India refused to sign the Comprehensive Test Ban Treaty and accelerated its nuclear weapons programme. The then prime minister, P.V. Narasimha Rao, came close to testing nuclear weapons in December 1995. Although Rao's famous second thoughts forced him to back off, the logic of his first thoughts on exercising India's nuclear option turned out to be too powerful. What Rao failed to do, Atal Bihari Vajpayee did in May 1998. Since then India's nuclear diplomacy has come a long way.

India now sees itself as a responsible nuclear weapon state, ready to help the world effectively manage the global nuclear order. Much of the world, however, found it difficult to accept India's nuclear tests in 1998 and sought to punish it. France and Russia were the honourable exceptions. Now the Bush administration, too, is suggesting that India must be treated as a part of the solution to the problem of nuclear proliferation. As India and the US intensify the effort to negotiate a settlement



India must stop demonising the nuclear treaty and start reinforcing it

■ C. RAJA MOHAN

of the nuclear problem in the bilateral context, a delicious irony has marked the multilateral debate on NPT at New York.

Guess who is pressing India to sign the NPT? It is the non-aligned world! "Universalisation of the NPT membership" is one of the clarion calls of the non-aligned bloc at the Review Conference. (Fortunately for India, the majority rarely has its way on nuclear issues.) India also has little time for a "thirteen point charter" that the non-nuclear states have been peddling at the NPT Review Conferences. The thirteen-point charter adopted at the 2000 Review Conference among other things calls

outside the NPT, India should have little problem with this approach. Unlike the Clinton administration and its non-proliferation hawks, the Bush administration recognises the importance nuclear power in meeting global energy demand, especially in China and India. The Bush administration is arguing that there should be a new set of rules — stricter than those under the NPT — governing peaceful nuclear commerce. It is an idea that is being strongly resisted by many non-nuclear countries. As the global debate on non-proliferation enters a crucial phase, India needs to intervene, purposefully. As a nation that has tried to

Since India is not participating in the NPT Review Conference in New York, it must find other ways to convey its positions on non-proliferation to the global community

on all states to sign the NPT and the CTBT. The Bush administration, in contrast, is saying the charter is a mere historical document that has no operational relevance today. Washington is saying the problem of proliferation today does not rest with India, Pakistan and Israel. The central challenge, it argues, lies with those states that have voluntarily signed the treaty to give up their nuclear option but are trying to exercise it now in a clandestine manner.

The US is also arguing that effective implementation of a non-proliferation regime demands some major adjustments within the NPT as well as the creation of new structures outside it. As a nation

shape global nuclear politics from the dawn of the atomic age, it cannot remain a passive spectator.

Any creative Indian intervention in the current non-proliferation debate will have two dimensions — a clarification on where India's own atomic weapons stand in the global nuclear order. The other is to come up with new ideas on how to stem the tide of global proliferation. Together these two themes lead to a number of actions/statements on India's part.

First, India needs to reiterate that it is a nuclear weapons state irrespective of how the NPT defines a nuclear weapons state. Second, India needs to affirm that despite being outside the NPT, it behaves

like a nuclear weapons state party to the NPT. India's record on transfer of nuclear technology and its current plans to introduce a tough domestic law on criminalising proliferation are testimony to its standing as a responsible nuclear weapons state. Third, India must promise to put much of its civilian nuclear programme under international safeguards and implement, like other nuclear weapons states, the additional protocol of the International Atomic Energy Agency, if the current ban against nuclear technology transfers to India is lifted. Fourth, India must underline the importance of nuclear power in global energy security. To address the link between energy and weapons, India must support proposals for restricting key elements of the nuclear fuel cycle to a few places controlled by the IAEA. Fifth, as a nuclear weapon state and a country with a large civilian nuclear industry, India must offer to host the internationally controlled enrichment and reprocessing facilities on its soil.

While supporting restrictions on access to fissionable materials, India must actively support demands of the non-nuclear states for assured supply of nuclear fuel for their power plants from these international facilities. India must offer to help draft model agreements for reliable fuel supply.

Finally, there is no reason for India to equate the NPT with the global nuclear order. While supporting the strengthening of the NPT system, India must participate in the new and more effective mechanisms outside it such as proliferation security initiative. Since India is not participating in the NPT Review Conference, it must find other ways to convey its positions on non-proliferation to the international community. A statement by the prime minister in Parliament in the next couple of weeks on the subject could be one way of doing this.

03 MAY 2005

INDIAN EXPRESS

Clandestine nuclear proliferation in neighbourhood: Natwar Singh

By Amit Baruah

NEW DELHI, MARCH 28. India today proposed a "global no-first-use" of nuclear weapons agreement. It also mooted an accord among the nuclear weapons States that they will not use nuclear weapons against non-nuclear weapons States.

Addressing a conference on the emerging nuclear proliferation challenges, the External Affairs Minister, Natwar Singh, suggested that the nuclear weapons States take practical steps to lower their "alert status" through gradual de-alerting actions of their "strategic weapons."

Calling for a "mindset change" in dealing with the challenges of nuclear proliferation, Mr. Singh criticised the international community for

being unable to deal with such issues. "The response of the international community has been ... inadequate at best, or permissive at worst, leading to the present adverse situation."

Without naming Pakistan, Mr. Singh said: "The infirmities of the non-proliferation order have imposed costs on India and have had an adverse impact on our security, as much of the clandestine proliferation which is today the focus of attention has tended to flow or emanate from our neighbourhood."

Uneven approach

Unfortunately, there remained a "selective focus" on the recipients of such clandestine proliferation, but not enough attention on the sources of supply. "This uneven approach does not lend credence

legitimate cooperation in peaceful uses of nuclear energy by States whose non-proliferation records are beyond doubt," Mr. Singh said.

India was a responsible nuclear power that practised a policy of utmost restraint. Reiterating the country's non-first-use position, Mr. Singh said: "We have repeatedly declared that we shall maintain only a minimum credible deterrent. We have stated that the role of India's nuclear weapons is entirely defensive. Our unilateral moratorium on nuclear tests continues to remain in place."

The nation's nuclear programme, civilian or strategic, had not violated any international obligations. "At the same time, conscious of the responsibilities that such technologies

bring, we have taken stringent measures to safeguard them," he said.

"We are committed to further strengthening our regulatory framework ... in keeping with the changing technical and security challenges. India has never been and never will be a source of proliferation."

On the nuclear energy front, he said India would continue on the path of indigenous development. "The pace of this development can be accelerated with greater international cooperation in the peaceful uses of nuclear energy."

"We have repeatedly said that every cooperation project in nuclear power would be open to international safeguards. However, such cooperation, today, remains hostage to restrictive denial regimes," he added.

Natwar nuclear high ground

PRANAY SHARMA

New Delhi, March 28: Making a renewed bid to be recognised as a responsible nuclear-weapon state, India today said its "conduct has been consistent" with key provisions of the non-proliferation treaty as "they apply to nuclear-weapon states" although the country is not a signatory to it.

Showing clear signs of flexibility, external affairs minister K. Natwar Singh said if the key world powers were willing to help India in nuclear civilian energy, it was willing to open every such cooperation project to "international safeguards" scrutiny.

The non-proliferation treaty makes it clear that barring the five declared nuclear-weapon states — the US, the UK, France, Russia and China — others will have to open all their nuclear facilities to international inspection if they want outside help for nuclear civilian programmes.

India refuses to accept this. Delhi maintains that while Indian nuclear military facilities — developed indigenously — will not be open to inspec-

tion, it was willing to accept scrutiny by the International Atomic Energy Agency of its civilian nuclear projects that have been developed with outside help.

Singh's remark is being seen as an attempt to outline Delhi's stand with an eye on the review conference of the NPT in Geneva in May. His comments are also significant against the backdrop of the recent signals from the US on access to India to nuclear technology.

"The non-proliferation order is coming under increasing stress, both on account of failure to make any significant progress towards nuclear disarmament as well as the failure to prevent clandestine proliferation by members of the NPT as well as some who are outside it," Singh told a conference on emerging nuclear proliferation challenges.

"Article I of the NPT obliges a nuclear-weapon state not to transfer nuclear weapons to any other country or to assist any other country to acquire them. India's record in this regard is impeccable.....," he said.

Although he did not mention Pakistan, Singh did not miss the opportunity to draw a distinction between the nuclear twins. India's impeccable credentials were "in contrast to the poor record of some of the nuclear-weapon states" that have been either active collaborators to illegal proliferation, including sale of nuclear components and technology.

The father of the Pakistan nuclear bomb, Abdul Qadir Khan, had recently been linked to nuclear sales to Iran.

Fuel loading begins for new 540 MWe Tarapur reactor

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By T.S. Subramanian

CHENNAI, JAN. 23. The loading of natural uranium fuel bundles in the first 540 MWe nuclear power reactor at Tarapur, about 110 km from Mumbai, has begun. Tarapur-4, the largest indigenously designed and built reactor in India, will be commissioned in two weeks.

S.K. Jain, Chairman and Managing Director of the Nuclear Power Corporation of India Limited (NPCIL), loaded the first fuel bundles on January 22 in the massive reactor, which is the fourth unit of the Tarapur Atomic Power Project (TAPP). This signalled the start of continuous fuel loading, which will go on for the next five or six days.

Mr. Jain called it "a significant milestone in a nuclear power plant" and "in technical jargon, it is reverse counting for the commissioning of the reactor." He called TAPP-4 "the first of its kind in the country because for the first time the



A file picture of the fourth new nuclear reactor at Tarapur. Loading of natural uranium fuel bundles into it began on Saturday.

NPCIL has built a totally indigenous reactor of 540 MWe capacity." This is a Pressurised Heavy Water Reactor (PHWR).

India has so far built 12 PHWRs of 220 MWe capacity in different parts of the country. While TAPP-4 has been built ahead of TAPP-3, the third unit, also of 540 MWe capacity, "is coming closely behind," Mr.

Jain said. It will be commissioned before the end of 2005.

The NPCIL Chairman said the loading of the fuel bundles into TAPP-4 "is really a proud moment for all us because all the systems of the reactor have been successfully integrated and it has met all the [regulatory] requirements so far." After the fuel loading is over, the

moderator systems will be flushed with heavy water. Later, the moderator and other systems will be filled with heavy water.

The start of the loading of the fuel bundles "has given us enough confidence and the reactor will be commissioned in the next couple of weeks," Mr. Jain said.

After that, physics experiments will be done in the reactor, and then the reactor will be connected to the western electricity grid. He stressed that "everything is indigenous in this reactor and it is a unique feat."

The PHWRs in India use natural uranium as fuel, and heavy water as both coolant and moderator. The natural uranium fuel bundles are fabricated by the Nuclear Fuel Complex at Hyderabad. Several plants in the country manufacture heavy water.

R.C. Rawal, Principal Project Director, TAPP-3 and 4, said the two reactors cost Rs. 6,525 crores to build.