The Conference on Disarmament (CD) finally agreed on August 11 to commence talks on stopping further production of fissile material for weapon purposes. Israel, the last holdout among the 61 member states agreed that it will not stand in the way of the negotiations despite having some fundamental reservations with the cutoff treaty. Two members, Egypt and Pakistan with Israel and India in their minds respectively, insisted on the inclusion of stockpiles in the proposed treaty. This view is not likely to be accepted by the weapon states and we hope certainly not by India. The Conference members decided that the talks will be on the basis of "Shannon" mandate of March 1995, which enables member states to raise the issue of past fissile material production.

Israel's positive reaction was in response to the request of President Clinton to Netanyahu, the Israeli Prime minister, not to block the establishment of an ad hoc committee for the talks. Israel's problems regarding the cutoff treaty were based on the fear that any implementation regime of the FMCT will be too intrusive and clear any ambiguity that may still remain on the Dimona reactor and the Israeli nuclear programme.
Pakistan's insistence on including the stock piles was for totally different reasons. Ambassador Munir Akram in his statement before CD on 30 July 1998, referred to the "wide disparity in fissile stockpiles of India and Pakistan" and by implication meant that the FMCT should not freeze the inequality. This position of "parity" is untenable as India could similarly claim parity with China and China with USA. The official US position is also that the cutoff should not be seen as a vehicle for "reducing regional disparities"- an "unrealistic" and "unacceptable" notion in a multilateral and non discriminatory treaty.

One would have expected Pakistan to oppose the cutoff of fissile material production for a different reason. Pakistan's Kushab reactor came on stream last April and the first phase of fuel replacement and reprocessing would have commenced. Production of weapon grade Plutonium would have started thanks to a little help from China in building the research reactor and later diverting heavy water meant for other safeguarded reactors. Henceforth the differential in stock of fissile material between India and Pakistan would only decrease proportionately. It was also unfortunate that Ambassador Munir Akram brought up the Kashmir issue in his statement on the CTBT and FMCT negotiations.

**Latest US position:**

The statement made by Michael A. Guhin, Deputy Assistant Director for multilateral affairs in Geneva on December 2, 1998, gives the official latest thinking of US position on FMCT. Briefly stated it says that FMCT would

* codify ban on any further production of fissile material for any nuclear explosives and bring all production facilities -that are not subject to any international inspections **under a strict verification and monitoring regime.** (emphasis added)

* help make the world safer from nuclear weapons.

In specifying what is "in" the treaty and what is "out"- the following will be "in"

1. An obligation not to produce fissile material for any nuclear devices.
2. An undertaking to accept verification and monitoring regime.

What is "out" would be,

1. Recycling of existing weapon material.
2. Tritium
3. Constraints on production of fissile material under verification for non-prohibited civil or military purposes.

Why is Tritium not being included? It is not because that it is not a fissile material, but banning Tritium which has a shorter shelf life would in effect be an eventual "weapon ban" on the nuclear weapon powers. (P5).

It is with reference to India that the US position continues to be rigid. We quote

While India in particular has sought recognition of a "new" or "special" nuclear status, we believe it contrary to our non-proliferation and other interests to "legitimize" or explicitly confirm any threshold state's nuclear weapons programs. Including, existing stocks, even transparency measures, would have exactly that effect. Internationally codifying declarations that they possess such stocks would, in effect, confer on them a special or "nuclear" status.

India is no longer a "threshold" state after Pokhran II tests. We have already stated in the first paper on FMCT and India, that retention of stocks held before the cutoff whether "transparent" or not should be the bottom line of Indian position. In another paper on Indo US relations (update) we have said that the US appears to be speaking in three different voices, moderation and reasonableness to impatience and even virulence and sometimes a mixture of virulence and moderation. If the hard line quoted above was only to be the opening position for negotiations then there will be some hope of getting a consensus on the FMCT which as we have said before is an important element in the non proliferation regime. If not, in the absence of consensus, the FMCT would also go the same way as CTBT to the UN General Assembly and the principle of consensus, which is a must for the "sovereign" nations will be given the go by. To this extent the role of the CD in Geneva will also become irrelevant.

From the Indian point of view, as said in an earlier paper, the definition of fissile material itself is important as the spent fuel in most of the civilian reactors are of Candu type having 70 percent Pu 239 and most of them do not come under the safeguards regime (1).
The question is whether the reactor grade plutonium could be defined as fissile material for military purposes. Reactor Plutonium besides Plutonium 239 has considerable concentrations of contaminating isotopes like Pu 240 (2) and Pu241 that make the handling of the fission products for purposes of bomb fabrication dangerous and difficult. This does not mean that it cannot be done. The US and Britain in the past have successfully done it. For making nuclear weapons from the so called "dirty Plutonium" all activities toward bomb design will have to be handled remotely and that too by machines. However the performance of such material in a bomb would have an impact on the reliability of the weapon, its performance and yield (3).

The US National Academy of Sciences after a detailed study of the problem has come with an ambiguous statement that civil or reactor grade Plutonium can be used for nuclear explosives- but it also recognizes that such Plutonium as "unsuitable for weapons use."

In the past a deliberate distinction was made between weapon grade Plutonium and Plutonium in civilian reactors. From a non proliferation point of view also, the weapon grade material from the research reactors should be of more concern than say, the Plutonium separated from commercial fuel. The Clinton administration which appears to be more concerned with the civilian Plutonium inventories (4) has adopted the term "weapon usable" to characterise all Plutonium whether from weapons or from spent fuel. This goes against the distinction made by the National Academy of Sciences between weapons and reactor grade Plutonium.

It must be recognised that all sovereign countries have an inalienable right to develop research, production and use of nuclear energy for peaceful purposes. The problem as we see it, is within US itself. The Clinton administration while enunciating the Plutonium policy in September 1993 has said " The United States does not encourage the civil use of Plutonium and accordingly, does not itself engage in Plutonium reprocessing for either nuclear power or nuclear explosive purposes. The US is also against "Breeder" reactors which produce more fuel that they consume from U238 to Pu 239.

Uranium in its natural form has only 0.7 percent of U-235 and the rest U-238. This is enriched to three to 5 percent concentration of U-235 (the rest U-238), fabricated into fuel and inserted in the reactor. While U-235 is fissioning in the reactor, some portion of U-238 also changes to Plutonium 239 though some of it is also consumed. The US position is that the fuel with Pu239 is to be treated as waste and disposed of. No reprocessing is done and the reason as one official put it "we don't need it."

But the Indian position is that the spent fuel is a resource to be used again as fuel.

This is the position in countries like France or Japan where reprocessing has to be done to generate nuclear power. France's
position has been succinctly stated, -"no gas, no oil, no coal and no choice." Japan and even Germany have invested heavily in nuclear generation and the process cannot be rolled back easily. In the case of India, with its chronic power shortage, it has like France "no choice." While the power demands have stabilised in developed countries, in a developing country like India there is no alternative to the use of Plutonium for power generation. New deposits have perhaps been found in Canada and Australia, but going by the unwarranted hostility shown by these two countries after Pokhran II tests, how can India depend on them for supply of Uranium for its reactors?

The US statement on FMCT mentions that the common objective of FMCT as well as NPT is to make the world safer from nuclear weapons. If the nuclear weapon states are sincere to make the world safer, the first step should be to declare their fissile material holding. Only USA appears to have declared its stockpile. The US is said to possess 99.5 tons of Plutonium either in the Department of Energy or in nuclear weapons controlled by the Department of Defence. (5). In 1995 the US has also declared more than 52 tons of Plutonium as surplus to national security environments. In the case of Russia, no one is sure as to the exact quantity of weapon usable Plutonium held. UK and France, in pursuance of para 14 of the guidelines of the Director of the International Atomic Energy Agency, Vienna, for responsible management of Plutonium have periodically published holdings of civil unirradiated Plutonium and Plutonium contained in spent Civil Reactor fuel. However, figures relating to their total holding or holdings of weapon usable plutonium have not been released and are not likely to do so either. For China, which is more relevant to India, no figures are known.

It should also be noted that for the weapon powers (see item 1 in "what is out" of Guhin's statement), cleaning up and recycling of already existing weapon material into weapons is out. Therefore any removal of weapon usable fissile material does not contribute to non-proliferation or towards making the world safer as these materials could always be recycled and used in nuclear weapons at any time and any place without notice. So much for the transparency!

Notes:
1. Commercial LWRs contain about 56 percent of Pu239 and weapon grade material has 93 percent Pu239.

2. Within reactor grade Plutonium, there are several other isotopes present in significant quantities- Pu 238, -240, -241 and -242. These isotopes are also radio active and some highly radio active. The presence of these isotopes makes handling Plutonium very difficult.

4. The quantity of civilian Plutonium being produced is likely to exceed the inventory of weapon grade Plutonium soon.