

NUCLEAR TRADE: FRANCE

Seven days in May

At the end of last month, just days after Iran had confirmed that she is to buy two nuclear reactors from France, a French consortium unexpectedly won the lucrative contract to supply two nuclear reactors to South Africa. Chris Sherwell reports

THE independence for which France has striven in her nuclear policy since the days of de Gaulle used to be confined largely to the realms of defence and the nuclear deterrent—the *force de frappe*. But times change. The last week in May was enough to confirm that, even as France assesses the balance of nuclear and conventional weapons in her defence strategy, an independent stand remains possible—in the equally sensitive field of nuclear trade, where the international consequences promise to be more widespread.

The timing of the Iranian and South African deals, as much as the content, reinforces the growing image of independence. Apart from coming ahead of important secret meetings in London last week of the expanded "Group of Seven" nuclear exporting countries, they closely followed the Canadian decision to end nuclear cooperation with India (see following story), and were announced in the face of growing US suspicion of France's controversial plans to sell nuclear reactors to Libya. The news of the South African deal also came just days after President Giscard d'Estaing's US visit, and not long after he held summit talks with leaders from the countries of Francophone Africa who gathered in Paris earlier last month.

On both occasions, it is likely that the possibility of the French consortium of Framatome, Alsthom and Spie Batignolles actually winning the \$1,000 million South African contract was mentioned, if not elaborately discussed. Anticipating criticism when the announcement finally came, the deal's defenders inside France have been quick to marshal their defences. They point to domestic employment and balance of payments benefits, but on a wider front face the problem that South Africa (like France itself but unlike either Iran or Libya) has not signed the Nuclear Non-Proliferation Treaty and has in fact recently reaffirmed her commitment to the nuclear option—facts which have enhanced the fear that South Africa might by the deal be acquiring a nuclear weapons capability.

Far from stressing that France's

nuclear trade policy does include safeguards, however, French officials maintain that no sensitive materials demanding safeguards are actually involved: in the words of one government spokesman, the contract is for the sale of "mere producers of electric current"; a spokesman for Framatome adds that plutonium produced by the two pressurised water reactors is not suitable for military purposes, and the point is also being made that South Africa has already developed the critical techniques of uranium enrichment and of fuel reprocessing anyway. The affair, says the government, should be viewed as "strictly commercial and technological".

That political factors helped crucially to decide where the main reactor contract should go is, however, openly acknowledged. The talk is of France's "reliability"; France's pragmatic foreign policy, particularly in respect of South Africa, is highlighted as a factor making the deal possible. Certainly it appears that South Africa made a judgment, probably in light of France's past arms sales to her, that while the deal would demand justification, French public opinion was unlikely to prevent it going through.

Right or not, that judgment may have been vindicated by reports on the imminence of a South African decision which stated that the leading candidate was a US-Swiss-Dutch consortium. Attention was thus helpfully drawn to the USA, where the chairman of the Africa sub-committee of the Senate Foreign Relations Committee examining aspects of the deal thought it contradicted the USA's Southern Africa policy, and to Holland, where an anguished coalition government prevaricated over the problem of its share of the credit guarantees. Certainly the proffered view of French officials is not in accord with the assessment of many observers that the French consortium won the contract by simple default when the Dutch government failed to meet its deadline.

For all that, the French press, French protestant churches, parties of the left and groups like Friends of the Earth have reacted strongly to the deal since its announcement. Reaction outside France has also grown, particularly in Africa, where the Organisation of African Unity and the African National Congress in South Africa were each quick in their condemnation. Reaction in Holland was understandably more mixed, since the impression was about that the deal had been allowed to slip from the country's grasp—some

thought by deliberate government contrivance. The Dutch government successfully survived an opposition censure motion, however.

The achievement will almost certainly contribute to the increasingly controversial debate now going on about international nuclear trade. Iran's prime minister has already denied any intention of manufacturing nuclear weapons, saying Iran is interested in nuclear power "only in order to step up electricity production rapidly and avoid wasting oil". But he has also said that Iran's 1974 agreement with France covers the whole range of nuclear technology, implying that reprocessing facilities might eventually be wanted as well. For her part France emphasises that any reprocessing facilities she provided would be controlled.

It is over the trade in both reprocessing and uranium enrichment facilities that the chief differences in nuclear export policy have arisen between France and West Germany on the one hand and the US on the other. The US would prefer a ban on such trade, while France and West Germany want trade but with safeguards and guarantees, including inspection, to prevent the misuse of the technology. As France's foreign minister puts it, for example, international life would become impossible "if one took it as a principle that international guarantees are worthless". But the Dutch reaction to the outcome of the South African deal is for many people more than enough to indicate that cut-throat competition would threaten the chances of safeguards achieving their objectives.

Already, though, the politics surrounding the latest deals has stretched far beyond the involved parties themselves and beyond questions about controls over a proliferating trade. Iran's prime minister has also had to dismiss suggestions, made in light of South Africa's existing links with Tehran and Mr Vorster's recent visit to Israel, of an emerging nuclear axis encompassing South Africa, Israel and Iran.

Similarly, there is the widespread view that the US is seriously considering what sort of support, both political and economic, it could offer South Africa in exchange for pressure from Mr Vorster on Rhodesia and movement over Namibia. Part of this support, it has been suggested, could come in the form of various types of nuclear assistance; the fact that the State Department had sanctioned the contract which has now gone to France is cited in support of this. General Electric, leader of the tripartite consortium bidding for the contract, is moreover already in on the project. It may not be

building the reactors; because the South Africans' own facilities will be on stream too late for the purposes of the project, it will be supplying them with the enriched uranium.

● In spite of mounting safety doubts and spiralling costs France reaffirmed its commitment to nuclear power by confirming in April that it is going ahead with its £500 millions Super-

phenix fast breeder reactor programme. Defending the decision, which followed earlier protests from concerned government scientists and nuclear power trades unionists, the Industry Minister, Michel d'Ornano, stressed the official view that "nuclear reactors currently present a remarkable record in the matter of safety". The French Government is aiming for an installed

nuclear capacity that will eventually meet almost all French generating demands, and if the 1,200 MW Superphenix prototype planned for the Rhone proves successful commercial breeder reactors could be under construction by 1990. Through the state-owned Electricité de France, France is a 51% partner in Superphenix with Italy and West Germany.

NUCLEAR TRADE: INDIA

An end or a beginning?

Canada recently decided to terminate nuclear cooperation with India. Our correspondent in Jullundur gives this assessment of the impact in the sub-continent.

ALTHOUGH Canada's decision was not entirely unexpected, it did come as something of a surprise because only in March this year, after nearly two years of strenuous negotiations between the two countries which had included three rounds of formal, two rounds of technical-level and several rounds of ministerial-level informal discussions, officials from the two sides initialled a detailed agreement in New Delhi which the two governments were expected to approve.

It was in this light that India responded. Speaking in the Lower House of Parliament, India's External Affairs Minister, Shri Y. B. Chavan, expressed disappointment and described the Canadian move as a "unilateral abrogation" of several provisions of the 1963 and later nuclear cooperation agreements between the two countries. He regretted that the Canadian Government had decided to "turn its back on the negotiated settlement and its contractual obligations". The Government of India, he said, was examining "the various implications" of the Canadian decision and would take "appropriate steps after this review has been completed". He made it clear, however, that there was "no ground for any suggestion that the Government of India is in any way responsible for ending Indo-Canadian nuclear cooperation".

Canada's Secretary of State for External Affairs, Mr Allan MacEachen, conveyed his government's decision to his Indian counterpart on May 18—exactly two years after India had carried out an underground nuclear explosion in the Rajasthan desert. This event is at the heart of the nuclear breach between the two otherwise very friendly countries: as Mr MacEachen put it, it was evident that Canada and India had taken profoundly different views of what should comprise peaceful applications of nuclear energy by non-

nuclear weapon states.

What effect will the Canadian decision have on India's atomic power programme? The worst that could happen would be more delays for projects that had already been delayed by an earlier Canadian ban on all nuclear shipments to India (of materials, equipment and so on) which was announced and enforced following India's explosion in 1974. The projects most affected by this ban were the second unit of the Rajasthan Atomic Power Project, RAPP-II (RAPP-I has been delivering power for quite some time now), the Madras Atomic Power Project (MAPP) and, to a lesser extent, the heavy water plant at Kota in Rajasthan, which is being built with knowhow developed at the Bhabha Atomic Research Centre (BARC) in Bombay.

For all of these projects India had placed orders with some Canadian manufacturers of special equipment, and sought alternative sources following the Canadian Government's ban. For example, critical components like reactor vessels and end-shields for MAPP reactors—originally on order from Canadian firms—have since been designed in India and are being built indigenously. The reactor vessel for MAPP-I has in fact already been delivered. Aside from a small number of specialised items which the country found it uneconomical to produce locally, most of the equipment and materials (including uranium fuel assemblies) for 200 to 250 MW CANDU reactors are being produced indigenously. RAPP-II, which after earlier delays will now be ready for commissioning in early 1977, may not possibly be able to go on steam as scheduled for want of enough heavy water. However, some heavy water is already being produced in the country at Nangal in Punjab (14 tons a year); a plant at Baroda in Gujarat (67 tons a year) was recently commissioned and is expected to start production shortly; and two more heavy water plants (Talcher, 62 tons a year, and Tuticorin, 71 tons a year) are expected to be commissioned by 1977. Thus, apart from the delays caused by the ban, any additional delays could only be

marginal as far as projects already under way are concerned.

The feeling in India is that Canada may suffer a loss of credibility by its action, and eyes are now being turned towards the US, where the government is under some pressure to default on its contractual obligation to supply India with enriched uranium for her Tarapur Atomic Power Station (TAPS), built by an American company on a turnkey basis. Shri Chavan has warned developing countries against attempts by developed countries to make participation in the technological revolution difficult: ". . . the Canadian thing", he told the Upper House, "is a warning in this direction", a warning to all developing countries and not only to India. India, he said, did not believe in making nuclear weapons, but it would not want to give up its right to develop nuclear energy for peaceful purposes.

The Canadian decision may yet help India move faster and with greater determination towards self-reliance and self-sufficiency in the nuclear field. Work has reportedly been going on at BARC on enrichment of uranium, for instance, and at TAPS on experiments aimed at finding ways to use plutonium in place of enriched uranium in the TAPS reactors. How much progress is being made is not known, however. Canada's action meanwhile raises questions about safeguards. When the agreement was signed between India and Canada in 1963 for setting up RAPP-I, Canada wanted India to agree to inspection by the International Atomic Energy Agency (IAEA), but India did not agree. An understanding was reached whereby Canada could inspect India's RAPP reactors and India could in turn inspect Canada's Douglas Point reactors, but when Canada later supplied heavy water for commissioning RAPP-I, it insisted that India sign a trilateral agreement involving the IAEA which put RAPP-I under joint safeguards. India is now presumably free to refuse any inspection of RAPP-I by Canada or by the IAEA, and free to use plutonium generated in the RAPP reactors any way she chooses. India has, after all, been using her own uranium in her reactors, including RAPP-I; only TAPS uses enriched uranium supplied by the USA under a contract. □