

## **A NOTE ON THE JAITAPUR POWER PLANT PROJECT WITH FRENCH UTILITY EDF**

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### **1. RELATIONS INDIA-FRANCE ON CIVIL NUCLEAR**

Country not signatory to the Non-Proliferation Treaty (NPT), India is a nuclear weapons power *de facto* and not *de jure* since its nuclear test in 1998. It seeks to that time to get a special status in the 'supplier countries group nuclear power (civil) "(NSG: nuclear suppliers group) that would allow it to conclude contracts with foreign companies for the construction of nuclear power plants.

France considers itself a leader on this issue because of a strategic partnership agreement with India in 1998, when the first state visit of French President Jacques Chirac in New Delhi. France has always supported over the fact that India becomes a permanent member of the UN Security Council.

It's in the second state visit of Jacques Chirac in 2006 that is signed February 20 bilateral political declaration on "*the development of nuclear energy for civilian purposes ... covered, where applicable, by appropriate safeguards agreements with the international Atomic energy Agency.* "

On 6 September 2008, the Nuclear Suppliers Group signed a cooperation agreement with India. The same month, the US Congress House of Representatives voted a nuclear cooperation agreement with India for a period of 40 years, providing for the transfer of technologies and supplies from the United States to India of nuclear material and non-nuclear, including reactors. The agreement, which ended an embargo of 34 years, has not been approved unanimously, some fearing the establishing of a dangerous precedent for nuclear proliferation, formalizing the status of nuclear power *de facto*.

Following this decision, a cooperation agreement with France was signed, leading to the signature of a Memorandum of understanding (MOU) between French company AREVA and Nuclear Corporation of India Ltd (NPCIL) to build six EPRs reactors at the Jaitapur site in Maharashtra, India. In December 2014, a General Framework Agreement was signed by these two partners for the building of two EPRs. A new agreement between AREVA and NPCIL was then signed in April 2015 with the same objective of building two EPRs.

More recently, EDF replaced AREVA as french partner for this project and, following a first general agreement signed in January 2016 during the French President's visit, a new Memorandum of Understanding was signed between EDF and NPCIL on the 22nd of March 2016, on the building of six EPR reactors in Jaitapur.

The state visit of President Hollande 24-25 and 26 January 2016 resulted in a "Joint Declaration" on a number of areas :

## **2. THE NUCLEAR ISSUE IN THE COMMON DECLARATION HOLANDE-MODI, JANUARY 2016**

We reproduce hereafter the paragraphs of the common declaration dealing with nuclear energy for power production (the Jaitapur nuclear power plant project), with a first paragraph on security on issues linked with nuclear power production.

### **2.1 Security**

6. France and India share common concerns and objectives in the field of non-proliferation of weapons of mass destruction. In order to strengthen global non-proliferation and export control regimes, France and India committed to continue to work jointly towards India's accession to the multilateral export control regimes, namely, the Nuclear Suppliers Group (NSG), the Missile Technology Control Regime (MTCR), the Australia Group, and the Wassenaar Arrangement. France reaffirmed its strong and active support to building consensus among regimes' members on this issue, recognizing that India's accession will add value to the aims and objectives of these regimes. India and France underscored their determination to achieve the accession of India to the NSG in 2016. France and India underlined their support for negotiations on the Fissile Material Cut-Off Treaty (FMCT) on the basis of the Shannon mandate, which remains an essential foundation for progress on the issue in the Conference on Disarmament.

### **2.2 Nuclear energy**

16. Both countries reaffirmed their commitment to responsible and sustainable development of civil nuclear energy with highest consideration to safety, security, non-proliferation and environmental protection. France and India underscored the contribution of nuclear energy to their energy security and to the fight against climate change.

17. France reaffirmed its strong and long-standing support for India's candidacy to the international export control regimes and in particular to the NSG.

18. In pursuance of the 2008 Agreement on the Development of Peaceful Uses of Nuclear Energy between India and France, the two leaders encouraged their industrial companies to conclude techno-commercial negotiations by the end of 2016 for the construction of six nuclear power reactor units at Jaitapur, with due consideration to cost viability of the project, economical financing from the French side, collaboration on transfer of technology and cost-effective localisation of manufacturing in India for large and critical components in accord with Government of India's "Make in India" initiative.

19. France acknowledged the need for India to have lifetime guarantee of fuel supply and renewed its commitment to reliable, uninterrupted and continued access to nuclear fuel supply throughout the entire lifetime of the plants, as stated in the 2008 bilateral IGA on nuclear cooperation.

20. The two leaders agreed on a roadmap of cooperation to speed up discussions on the Jaitapur Nuclear Power Project in 2016. Their shared aim is to start the implementation of the project in early 2017.

21. In this context, the two leaders noted with satisfaction, the on-going time-bound implementation of cooperation between AREVA and L&T under the Memorandum of Understanding signed in April 2015 for large-scale localisation of components for the nuclear power project at Jaitapur, as well as the good progress in pre-engineering studies for the project being carried out by AREVA in collaboration with NPCIL.

22. PM Modi and President Hollande welcomed the initialling of revised MOU between EDF and NPCIL for the construction of six EPR units at Jaitapur.

23. France welcomed the decision by the Government of India to ratify the Convention on Supplementary Compensation for Nuclear Damage.

24. The two leaders welcomed the regular engagement between their atomic energy organizations and their growing collaboration in mutually beneficial scientific and R&D sectors related to peaceful uses of nuclear energy.

25. They also appreciated the long-standing relations between their nuclear regulatory authorities – India’s AERB and France’s ASN – which has facilitated sharing of valuable experiences, best practices and developments related to nuclear safety and regulatory issues.

### **3. COMMENTS ON THE COMMON DECLARATION**

#### ***a) Paragraphs 6 and 17:***

There remain a number of questions on the order of international law on nuclear cooperation with a country, India, which has not signed the NPT. As well as the participation of India to export controls in this area and the Nuclear Suppliers Group (NSG).

#### ***b) Paragraph 18:***

Confirms that many issues remain unsolved: project cost ; financing from the French side; technology transfer; the level of the local share (India) for the production of equipment, including the most important.

#### ***c) Paragraph 19:***

France is committed to the supply of nuclear fuel for the entire lifetime of the reactors. It is difficult to interpret this commitment: is it a supply of raw material (natural uranium), or a supply of enriched uranium, or a supply of fuel (assemblies), and at what price. Is that going to the management of spent fuel?

#### ***d) Paragraph 20:***

Given the importance of the pending issues outlined in paragraph 18 and the difficulty of the negotiations on these issues in all circumstances and particularly with Indian partners, one can have doubts about the date for the start of the setting out the project in early 2017.

#### ***e) Paragraphs 21 and 25:***

These two paragraphs illustrate the plight of the French side (not necessarily well understood by the Indian side). On the one hand (paragraph 21), the two leaders welcomed the good cooperation with AREVA on this project and, on the other hand (paragraph 22), they greet the revised memorandum of understanding between EDF and NPCIL for the construction of six EPR in JAIPUR. Thus a new memorandum of understanding (MOU) was signed between EDF and NPCIL on March 22, 2016, after the one signed in April 2015 by AREVA.

There is the handover between AREVA and EDF for the responsibility for this project, knowing that the question of the transition from AREVA NP under the responsibility of EDF is far from settled. This could put EDF in a very uncomfortable position vis-à-vis its Indian partners. One may think that the recovery in the hands of the case by EDF could lead in particular lead to a new negotiation with the partner L & T previously linked to AREVA, especially since it seems that L & T has no experience in the nuclear field.

EDF said in a statement of 26 January 2016:

***"The objective of the coming months will continue preparations begun by Areva and NPCIL in April 2015, the certification of the EPR in India by the Indian regulatory authority and to finalize the conditions particularly economic and financial and technical specifications project, supervised by the Indian nuclear agency DAE "***

Note here that, according to the Indian press, negotiations conducted to date by AREVA had very little progress due to disagreement with NPCI on the cost of the project. What will happen with EDF?

#### **4. A DELICATE QUESTION: LIABILITY IN CASE OF ACCIDENT**

##### **4.1 Issue**

The Fukushima nuclear accident has reminded the international community of the risky nature of the exploitation of atomic energy and handed on to centre stage the issues related to victim compensation and liability in case of accident. This problem is not new since in 1963 the international community adopted the Vienna Convention on civil liability for nuclear accidents, agreement amended in 1997, which helps promote and secure trade relations in the sector nuclear by introducing standardized legal principles. This convention, to which is added the Paris Convention on Third Party Liability in the Field of Nuclear Energy and the Convention on Supplementary Compensation for Nuclear Damage (CSC), establishes the principle of primary responsibility for the operator up to a certain amount, from which the State in which the accident took place must support allowances, and all the signatories.

Liability in case of accident is a particularly sensitive element in the transfer of technologies and nuclear materials, since without warranty on these issues, a manufacturer may find difficult to ensure in its country of origin and thus to make the planned investment abroad. It is this recognition that has recently made the nuclear companies in their relations with India. In fact, New Delhi has not ratified any of the conventions mentioned above. Particularly marked by the industrial disaster in Bhopal, the official death toll was more than 3 000 deaths in 1984 and which had involved the subsidiary of an American group, India has long been unfavourable to shirk its responsibilities builders.

However, following the nuclear agreement of 2008 with the United States, it has thoroughly reviewed its position in 2010 by adopting the Civil Liability for Nuclear Damage Act, which placed the operator at the heart of the accountability system, all by defining the government's compensation arrangements in the event that damages exceed a certain sum. But by giving the operator the option to turn against the manufacturer, whether local or foreign (section 17 of the Act), the law has deterred potential investors to build nuclear plants on Indian Territory, the cost insurance became too important.

This is particularly the issue that was the focus of discussions between President Obama and Prime Minister Modi during their recent meetings, particularly during the trip to the US President to India in January 2015. The 2008 agreement is in effect so far remained unimplemented, while India's nuclear ambitions remain high in energy terms. These exchanges enabled some progress, India adopted following the meeting a note clarifying the interpretation of the 2010 law and creating a public insurance pool to support the benefits beyond an amount equal to about \$ 420 million.

The question is whether these measures will be sufficient to enable investors to position themselves on the vast Indian market. Internally, this relaxation of the 2010 Law may be strongly criticized and seen as a favour granted to the US at the expense of Indian taxpayers. On the corporate side, the fact that these flexibilities from an administrative notification and not a legislative amendment may raise doubts in terms of legal certainty in a country where the business climate is already suffering the weight of corruption and of inefficiency of the bureaucracy.

India asserts that the 2010 law does not need to be amended and complies with the Convention on Supplementary Compensation for Nuclear Damage, but this interpretation is debatable. The system advocated by Modi government, which aims to promote a "partnership in risk management" between manufacturer and operator, actually depends a lot on trust that can exist between foreign and Indian administrative and judicial authorities. As such, the US government has suggested to its builders (including General Electric and Westinghouse) they should continue to subordinate their investment decisions at their own risk assessment. These problems are not exclusive to US companies, since Areva expressed its wish to respond to calls for tenders and Indians to build more reactors for a capacity of 10 000 megawatts. Tours of Laurent Fabius and Ségolène Royal in India in January 2015 also allowed discussing these critical issues for the future of nuclear cooperation between the two countries.

#### **4.2 Current Situation**

India had signed in October 2010, the Convention on Supplementary Compensation for Nuclear Damage. It was not until February 4, 2016 for India to formally submit its instrument of ratification of the agreement with the IAEA.

This date is probably not coincidental and that ratification is able to reassure the French partner.

Nevertheless, the issue remains extremely complicated in legal terms and the attitude of the US government needs to be carefully considered. Indeed, if the government can send private companies Westinghouse and General Electric to their own responsibility, this is not the case in France where the state is overwhelmingly majority shareholder in EDF capital. Any obligation for EDF to participate in subsequent financial compensation in a nuclear accident in India on a plant built by EDF would have a direct impact on the state budget. The question arises even more acutely if EDF does not only ensured the role of manufacturer but also participated in the operation.

Finally, keep in mind the words of André-Claude Lacoste, then president of the Nuclear Safety Authority (ASN) reported by Bloomberg June 6, 2012:

*“Export contracts for nuclear plants are being obtained at pure dumping-level prices,” Andre-Claude Lacoste, head of the “Autorité de Sûreté Nucléaire” regulator, said today at a conference organized by L’Usine Nouvelle magazine in Paris.*

*“Prices accepted by vendors and obtained by buyers are unsustainable,” Lacoste said.*

*“There aren’t many tenders, which is why competitors are ripping each other off. It’s already a serious matter, and we need to make sure that there’s no dumping on safety on top of that.”*