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Case No COMP/M.4839 - AREVA NP / MHI / ATMEA

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REGULATION (EC) No 139/2004
MERGER PROCEDURE

Article 6(1)(b) NON-OPPOSITION
Date: 29/10/2007

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COMMISSION OF THE EUROPEAN COMMUNITIES

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PUBLIC VERSION

MERGER PROCEDURE
ARTICLE 6(1)(b) DECISION

To the notifying parties

Dear Sir/Madam,

Subject: Case No COMP/M.4839 - AREVA NP / MHI / ATMEA
Notification of 15.03.2007 pursuant to Article 4 of Council Regulation No 139/2004[1]

1. On 24 September 2007, the Commission received a notification of a proposed concentration pursuant to Article 4 of Council Regulation (EC) No 139/2004 by which AREVA NP ("AREVA NP", France), jointly controlled by AREVA ("AREVA", France) and Siemens AG ("Siemens", Germany), and Mitsubishi Heavy Industries ("MHI", Japan) creates within the meaning of Article 3(1)(b) of the Council Regulation a joint venture (ATMEA) by way of transfer of assets.

2. The Commission has concluded that the notified operation falls within the scope of the Merger Regulation and does not raise serious doubts as to its compatibility with the common market.

I. THE PARTIES

3. **AREVA NP** is active in the design and manufacturing of nuclear reactors and provides services related to nuclear reactor operation.[2]

4. **MHI** is active in power structures – including nuclear power equipment and services - shipbuilding and ocean development, aerospace systems, steel structures and assorted types of industrial and other machinery.

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1 OJ L 24, 29.1.2004, p. 1.

2 AREVA NP is co-owned and co-controlled by AREVA (66%) and Siemens (34%). The creation of the JV was authorised by the Commission in 2000, see decision in case COMP/M.1940 FRAMATOME/SIEMENS/COGEMA/JV of 6.12.2000.

5. **ATMEA** will be responsible for the design, licensing, certification, marketing, sales, construction and commissioning of a single type of nuclear island ("NI") to be installed in nuclear power plants ("NPPs").

II. THE CONCENTRATION

6. On 10 July 2007, AREVA NP and MHI entered into a Joint Venture Contract according to which the joint venture, to be called ATMEA, will be created. Each party will own 50% of the share capital in ATMEA and the parties will appoint an equal number of members to the Board of Directors. Strategic decisions (defined in the Joint Venture Contract) will require a unanimous vote. In light of these elements, it can be concluded that ATMEA will be jointly controlled by the parties.

7. ATMEA, will be full-function. It will operate independently from the parent companies, performing the full range of activities normally performed by companies in the industry concerned. ATMEA will be free to select either the parent companies or third parties as subcontractors, and all negotiations between ATMEA and its subcontractors will be carried out at "arm's length". In addition, ATMEA will have its own dedicated management, will have sufficient financial resources[3], and control the IP-rights necessary to carry out its activities. ATMEA is established for an initial period of 60 years. ATMEA must therefore be regarded as performing on a lasting basis all the functions of an autonomous economic entity.

8. Therefore, the proposed operation constitutes a concentration within the meaning of Articles 3(4) and 3(1)(b) of the Merger Regulation.

IV. COMMUNITY DIMENSION

9. The combined aggregate worldwide turnover of the undertakings concerned exceeded €5,000 million in 2006 (AREVA NP €2,925 million and MHI € […] million) and at least two of the undertakings concerned had a Community-wide turnover of more than €250 million (AREVA NP €[…] million and MHI €[…] million). Each of the undertakings concerned do not generate more than two thirds of their aggregate Community-wide turnover in the same Member State. The proposed transaction therefore has Community dimension.

V. COMPETITIVE ASSESSMENT

V.1 Introduction

10. The provision of NPPs and related services is relatively concentrated with three firms active worldwide, AREVA NP, Toshiba/Westinghouse[4] and GE/Hitachi. In addition, there are several companies with regional or national footprints, namely the Russian company Atomstroyexport (also active in the EEA), Atomic Energy of Canada Ltd ("AECL"), Doosan/KOPEC of South Korea, MHI and the Government of China.

11. NPPs consist of two main components the nuclear island ("NI") on the one hand and the conventional island ("CI") on the other. ATMEA will only market NIs with a power

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3 The initial share capital will be EUR 66 million.

4 Case COMP/M.4153 – TOSHIBA/WESTINGHOUSE, decision of 19.9.2006.

range from 900 Megawatts electrical (MWe) to 1200 MWe, utilizing newly developed technologies.

V.2. Design and Manufacture of NIs for New NPPs

Relevant product market

Nuclear Islands

12. The NI generates steam using nuclear technology, whereas the CI uses this steam to produce electricity through turbines and generators. The CI is typically housed in a building separate from the NI.

13. The Commission has previously considered NIs and CIs to be separate product markets.[5]

Other possible distinctions

14. The joint venture, ATMEA, will produce light water reactors ("LWRs"), the most common reactor type in the world (LWRs account for approximately 80% of existing installations). The two most common types of LWRs are pressurised water reactors (PWRs) and boiling water reactors ("BWRs"). The NI developed by ATMEA will be a PWR. A variant of PWRs are heavy water reactors (PHWRs). The question whether the market for the supply of NIs should be subdivided according to reactor type can remain open in this case[6].

15. Since the Parties argue that they are creating the joint venture specifically to market medium size NIs in the range of 900-1200 MWe due to the expected future demand for this power range and considering the fact that the Parties will remain independent as regards the supply of NI with higher and lower power capacity, the Commission investigated the relevance of defining a market for mid-power NIs.

16. In this respect, respondents to the market investigation explained that such segmentation would not be relevant both due to demand-side and supply-side considerations. From the demand side, it was pointed out that customers would normally consider several types of designs meeting their requirements and NIs with power below or above 900-1200 MWe would compete with the type of NIs ATMEA will be marketing. From the supply side, it was pointed out to the Commission that suppliers of NIs usually endeavour to meet the challenge of increasing the power of NIs, and that, therefore, most competitors are able to provide NIs designs of lower power such as those concerned by the proposed concentration.

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5 See FRAMATOME/SIEMENS/COGEMAJV. In TOSHIBA/WESTINGHOUSE, the Commission left it open whether one should distinguish between (i.) the NI and the CI on the one hand or between (ii.) the Nuclear Steam Supply System ("NSSS") and the so-called Balance of Plant ("BoP") on the other, as suggested by the parties to that transaction. The latter terminology is used by the US National Regulatory Commission. The NI consists not only of the NSSS but also of those parts of the BoP which are auxiliary to the NSSS.

6 In TOSHIBA/WESTINGHOUSE, the Commission left open whether the NI market should be segmented further according to reactor type. In this case, the Parties argue that it is inappropriate to do so, mainly due to a high degree of demand-side substitutability (most countries operate multiple types of reactors). Other possible distinctions were left open such as whether a separate market should be defined for reactor "subassemblies". In most cases, the whole reactor is provided by one firm ("the prime contractor"). However, the prime contractors may use third parties as sub-contractors for specific components.

17. In view of these elements, the competition assessment of this case is based on a market for NIs including all types of NIs.

Relevant geographic market

18. There are arguments that the relevant geographic market for the supply of NIs is global. There is a limited number suppliers, all of whom have proven technologies. Individual new projects are very large and attractive to all potential suppliers. Theses projects arise infrequently. However there are a number of factors which may limit the scope of the relevant geographic market.

19. Given the security issues surrounding the construction and operation of nuclear power plants, access to nuclear technology is carefully controlled and monitored. In particular exports to countries where there is no "full scope safeguards' are not permitted by the Nuclear Suppliers' Group Guidelines" (IAEA Document INFCIRC 254). These guidelines have been implemented in the European Community by Regulation 1334/2000. Therefore one possible geographic market definition would be global less the countries where export restrictions under INFCIRC apply.

20. In addition there are a number of countries where contracts have historically been awarded to the national supplier(s). In its investigation of the present case, the Commission found that, according to respondents, many countries besides Japan, remain closed to foreign competition. Countries with indigenous suppliers such as France (AREVA NP), Russia (Atomstroyexport), Korea (Doosan/KOPEC) and Japan (MHI, Toshiba, Hitachi) do not appear to be currently open to foreign competition. This suggests that competition conditions cannot be considered as globally homogeneous.

21. However, other firms have used their experience in building NPPs in their "home markets" (e.g. AREVA NP in France, GE in the US and Atomstroyexport in Russia) to successfully bid for and construct NIs in export markets.

22. Furthermore, regulations differ across the world and this requires suppliers to change the design of NIs, which can prove to be a complex task.

23. Therefore the Commission will assess the proposed transaction on the basis of the following alternative geographic markets;

- Global
- Global less countries where export restrictions apply
- Global less countries where export restrictions apply and countries which are currently exclusively supplied by a national provider.

24. The question of which of these possible geographic market definitions is the relevant one, can in any event remain open, as it does not have any bearing on the conclusions of the competition assessment.

Assessment

25. As previously described, ATMEA will produce a single type of NI for new NPPs, a NI with a capacity of 900-1200 MWe. The only market shares available to evaluate the market power of the new entity come from projects with other types of NIs.

26. The table below shows the shares of the various suppliers on the various geographic markets.

Table I. Share of supply for NIs (based on number of reactors)

1996-2007

Company	**Global**	**Global exc. export restriction countries**	**Global exc. export restriction countries, Japan, Russia, S. Korea, France and Canada**
AREVA	[0-5]%	[5-10]%	[0-5]%
MHI	[0-5]%	[0-5]%	-
Combined	[5-10]**%**	[5-10]**%**	[5-10]**%**
Atomstroyexport	[20-30]%	[20-30]%	[20-30]%
Chinese	[10-20]%	[10-20]%	[30-40]%
Doosan/KOPEC	[10-20]%	[10-20]%	-
Toshiba/Westinghouse	[10-20]%	[10-20]%	[10-20]%
GE/Hitachi	[5-10]%	[5-10]%	[5-10]%
Others	[10-20]%	[5-10]%	[5-10]%
Total	**100%**	**100%**	**100%**

27. On the overall worldwide market for the supply of NIs, for projects won during the period 1996-2007, AREVA NP and MHI accounted for respectively [0-5]% and [0-5]% of all projects between 1996 and 2007. For the same period the parties would have a combined share of [5-10]% (AREVA NP [5-10]% and MHI [0-5]%) on a global market excluding export restriction countries. On the narrowest definition under consideration, worldwide excluding export restriction countries, Japan, Russia, South Korea, France and Canada the combined share would be [0-5]% (AREVA NP [0-5]%, MHI [0-5]%).[7]

28. GE/Hitachi and Toshiba/Westinghouse represent respectively [5-10]% and [10-20]% of the worldwide market, while the largest players are regional players such as Russia's Atomstroyexport ([20-30]%), the Chinese state-owned industry ([20-30]%), and South Korea's Doosen/KOPEC ([10-20]%).

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[7] As regards current projects, Areva NP is currently constructing a 1600 MWe reactor in Finland and has recently won a contract to construct a reactor in France. MHI is constructing one 912 MWe reactor in Japan and has begun preparations for another two 1538 MWe reactors in the same country. In May 2007, MHI was selected to supply an unspecified number of 1700 MWe reactors on behalf of a US utility.

29. On a global market excluding countries subject to export restrictions the parties' main competitors are Atomstroyexport ([20-30]%), Chinese suppliers ([20-30]%) and Doosan/KOPEC ([10-20]%). When in addition Japan, Russia, South Korea, France and Canada are excluded the principal competitors would be Atomstroyexport ([20-30]%), the Chinese state-owned industry ([30-40]%) and Toshiba/Westinghouse ([10-20]%).

30. On the basis of these market structures, there are no affected markets. An alternative basis for evaluation would be to look at the "installed base" (i.e. the total number of reactors currently in use or being planned/constructed). AREVA NP would account for [20-30]% and MHI for [5-10]% of the installations, indicating a joint worldwide "market share" of [30-40]%. Despite the fact that the Parties' market shares calculated on the basis on the entire installed base are higher than the corresponding figures for 1996-2007, the resulting market share of [30-40]% is not a cause for concern, considering that AREVA NP's market share has fallen substantially as shown by the 1996-2007 data.

31. Regarding the part of the market on which ATMEA will be active, i.e. mid range NIs, Toshiba/Westinghouse is already in a position to market a similar reactor, whereas other players such as GE/Hitachi and the Russian and Canadian atomic energy industries are believed to be developing similar NIs. Furthermore, as previously explained, customers generally consider several designs with various power outputs.

32. Moreover most respondents to the Commission's investigation consider that the proposed creation of ATMEA will be pro-competitive as it will introduce a new reactor design into the market.

33. Therefore, in relation to the supply of NIs, the transaction will not raise serious doubts as to its compatibility with the common market.

V.3 Coordination risks (Article 2(4) of the Merger Regulation)

34. The Parties state that the NI of the JV will be smaller than and different from the NIs offered independently by the parent companies. Moreover, the Parent companies are active in different parts of the world. The difference in product design and the limited geographical overlap makes any potential coordination unlikely, as already explained by the Commission in its TOSHIBA/WESTINGHOUSE decision. Accordingly, and as confirmed by the market investigation, risks of coordination issues specific to the Article 2(4) of the Merger Regulation in the market in which the JV will be active appear limited.

35. The same arguments seem to be valid for those markets in which both parent companies but not ATMEA are active, namely the provision of maintenance/repair services for NIs, fuel assemblies for NIs and the design and manufacturing of CIs.

VI. CONCLUSION

36. For the above reasons, the Commission has decided not to oppose the notified operation and to declare it compatible with the common market and with the EEA Agreement. This decision is adopted in application of Article 6(1)(b) of Council Regulation (EC) No 139/2004.

For the Commission

(signed)
Neelie KROES
Member of the Commission