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Foreign Investment in U.S. Nuclear Reactors: Mitigation Measures to Overcome Statutory Roadblock

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I. INTRODUCTION

This article highlights the possibilities for investment by foreign companies in the commercial nuclear power industry of the United States,[1] notwithstanding provisions of the Atomic Energy Act of 1954, as amended ("AEA"), which prohibit the issuance of a reactor license to a person or entity that is subject to foreign ownership, control or domination ("FOCD").[2] Specifically, this article examines the restrictions on foreign investment in U.S. commercial nuclear power plants and how transactions involving foreign interests in U.S. commercial nuclear power plants have been structured to facilitate approval by the U.S. Nuclear Regulatory Commission ("NRC"). It provides a description of foreign investments that have been approved by the NRC since the issuance of the NRC's Standard Review Plan on Foreign Ownership, Control and Domination in 1999, including the anticipated NRC approval of the investment of Électricité de France SA ("EDF") in the nuclear power generation assets of Constellation Energy Group ("CEG"). As discussed below, the anticipated approval of the EDF investment signals a reaffirmation of prior precedent that foreign companies can make very significant (50%) investments in an American company's nuclear assets, as long as an appropriate negation action plan is implemented.

As noted in a previous article,[3] two significant factors in the U.S. commercial nuclear industry suggest a greater opportunity for foreign investment in the U.S. nuclear energy sector. First, the U.S. commercial nuclear industry has significantly improved its safety performance, which has led to fewer unplanned shutdowns, as well as increased utilization rates and profitability. Second, the NRC's oversight process has stabilized and as noted herein, foreign investment in the U.S. commercial nuclear power industry has been approved regularly by the NRC, when appropriate mitigation measures are implemented. Both of these factors suggest an opportunity for foreign corporations and other entities to invest in the U.S. commercial nuclear power industry when appropriate mitigation plans are put in place. Furthermore, British Energy plc's 50% investment in AmerGen, the value of which more than doubled over a four year period, shows the potential for investment growth from investing in the U.S. commercial nuclear power industry. In light of the anticipated approval of EDF's investment in CEG's commercial nuclear power plant assets, there appears to be expanding opportunities for foreign companies to invest in the U.S. commercial nuclear power industry, as long as investments are appropriately structured and sufficient negation action plans are implemented.

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1 Investment opportunities in the U.S. commercial nuclear power industry represent an area of sound business expansion for multinational corporations. Not only is the U.S. commercial nuclear industry one of the mature commercial nuclear power industries in the world, the U.S. industry's commercial nuclear power plants have been run safely and well and have been profitable for over 30 years.

2 42 U.S.C. §§ 2133(d), 2134(d).

3 John E. Matthews, "Foreign Investment in U.S. Nuclear Generating Assets: Mitigation of Barriers Presents Opportunity," EUROPEAN ELECTRIC UTILITY REVIEW (April 2004). Available at www.morganlewis.com.

II. FOREIGN OWNERSHIP AND CONTROL RESTRICTIONS FOR U.S. NUCLEAR POWER PLANTS

A. Applicable Statutory and Regulatory Provisions

The AEA establishes the NRC licensing requirements associated with ownership and/or operation of commercial nuclear power reactors in the United States. Specifically, Section 101 of the AEA states:

> It shall be unlawful . . . for any person within the United States to transfer or receive in interstate commerce, produce, manufacture, acquire, possess, use, import or export any utilization or production facility except under and in accordance with a license issued by the Commission pursuant to Section 103 or 104.

42 U.S.C. § 2131; *see also* 10 CFR § 50.10(a). In the case of nuclear power reactors (*i.e.*, utilization facilities),[4] the NRC has interpreted this provision to include not only the operator of the reactor, but also *each owner of an undivided interest in the reactor*. *See Pub. Serv. Co. of Indiana, Inc.* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-459, 7 NRC 179, 198-201 (1978). As such, the NRC historically has required each of the co-owners of a jointly-owned nuclear utilization facility to apply for a license, even if the co-owner does not have any operational responsibilities with respect to the plant. A non-operating owner is licensed only to "possess" the facility, whereas an operator or owner-operator is licensed to "possess, use, and operate" the facility. The NRC has indicated that there is no *de minimis* standard for a direct ownership interest in a nuclear reactor below which a license is not required. Accordingly, any entity holding a direct, undivided interest in a nuclear power plant must be an NRC licensee.

Sections 103d and 104d of the AEA, 42 U.S.C. §§ 2133(d) and 2134(d), expressly prohibit the issuance of a license to an alien or "any corporation or other entity" that is "owned, controlled or dominated by an alien, a foreign corporation or a foreign government." Additionally, the same sections prohibit the NRC from issuing a license to any person or entity if, in the opinion of the NRC, doing so would be "inimical to the common defense and security." Similarly, the NRC's implementing regulations at 10 CFR § 50.38 provide:

> Any person who is a citizen, national, or agent of a foreign country, or any corporation, or other entity which the Commission knows or has reason to believe is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government, *shall be ineligible to apply for and obtain a license*.

(Emphasis added.) The provisions governing the content of an application for a Part 50 license provide that if the applicant is a corporation or an unincorporated association, the application must state "[w]hether it is owned, controlled, or dominated by an alien, a foreign corporation, or foreign government, and if so, give details." 10 CFR § 50.33(d)(3)(iii).

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[4] The United States government also considers a nuclear power reactor to be a production facility, because it "produces" special nuclear material of strategic concern (*e.g.*, plutonium) in the irradiated nuclear fuel.

Importantly, the foreign ownership, control, or domination ("FOCD")[5] restrictions apply not only to the issuance of initial and renewal licenses but also to the direct and indirect transfers of power reactor operating licenses. Under Section 184 of the AEA and 10 CFR § 50.80, the NRC must consent to the direct or indirect transfer of a license. Section 184 provides that the NRC may give consent only if it finds that "the transfer is in accordance with the provisions of [the AEA]" and the licensee is "qualified to be the holder of the license." 42 U.S.C. § 2134.

Consequently, foreign entities may not *directly* hold any ownership interest (even a minority share) in an existing or new nuclear utilization or production facility in the United States. This prohibition, however, does not preclude a foreign company from having a direct or indirect ownership interest in a U.S. company which, in turn, holds a minority ownership interest in such a nuclear production or utilization facility. Specifically, it does not categorically preclude foreign investment in a nuclear power plant where: (1) the AEA licensee is a U.S. corporation (or other U.S. business entity); (2) the licensee is not *directly and wholly* owned by a foreign corporation or other foreign entity; and (3) U.S. citizens control any decisions on matters affecting public health and safety or the common defense and security of the United States, such as the control and physical security of special nuclear material.

In addition to determining whether the level of foreign ownership and control is otherwise permissible, the NRC is required to examine whether the issuance of a license would be "inimical" to the common defense and security, and NRC could determine that additional license conditions to address foreign ownership or "inimicality" issues are required. As a practical matter, the inimicality requirement is closely intertwined with the prohibition on FOCD. In this regard, the NRC's Standard Review Plan discussed below states that "the foreign control limitation should be given an orientation toward safeguarding the national defense and security," such that "an applicant that may pose a risk to national security by reason of even limited foreign ownership would be ineligible for a license."[6] The "inimicality" provision of Sections 103d and 104d, in any case, by itself authorizes the NRC "to reject a license application that raises a clear proliferation threat, terrorist threat, or other threat to the common defense and security."[7]

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[5] The term FOCD is similar to the term "FOCI," which is used to refer to the prohibition against foreign ownership, control or influence of companies that hold security clearances issued by U.S. government agencies. The operating licensee for a reactor typically must enter into a Security Agreement and hold a Facility Security Clearance issued by the United States government, which governs the security requirements of the company including employees who obtain individual security clearances. The need for these clearances is not based upon sensitive nuclear information, but rather the clearances are required so that national security information, *e.g.*, classified information regarding a terrorist threat, could be shared with plant officials, if necessary. The prohibition against FOCI and FOCI mitigation measures are addressed in Chapter 2, Section 3 of the National Industrial Security Program Operating Manual, DoD 5220.22-M (Feb. 28, 2006), which governs security clearances issued by any U.S. government agency (each known as a "cognizant security agency"). This manual, known as the "NISPOM," provides the baseline standards governing classified information released or disclosed to industry, and its FOCI requirements are a potential point of reference when considering FOCD issues.

[6] *See* "Final Standard Review Plan on Foreign Ownership, Control, or Domination," 64 Fed. Reg. 52,355, 52,358 (Sept. 28, 1999).

[7] *Id.* n.4. The United States Department of Energy ("DOE") restricts the ability of U.S. persons, as defined in 10 CFR § 810.3, to assist foreign atomic activities. DOE's authority to promulgate Part 810 is based on Sections 57, 127, 128, 129, 161 and 223 of the AEA. For countries that have met certain requirements, DOE

For example, in the case of an application for a license for a power reactor by a U.S. business entity which is partially owned by a foreign investor from a foreign country, the NRC will address whether such foreign involvement is consistent with the applicable foreign ownership and "non-inimicality" requirements. It is unlikely that the NRC would impose any more burdensome conditions for partial foreign ownership of a power plant under the "common defense and security" standard than it would under conditions imposed to assure compliance with the prohibition on FOCD. Although the NRC has noted that previous Commission decisions regarding foreign ownership or control did not appear to turn on which particular nation the applicant was associated with, the broader required finding of non-inimicality to the common defense and security may be based, in part, on the nation involved.[8] Namely, the fact that the foreign interest at issue is from a country that is a close ally of the United States or a signatory to the Nuclear Non-Proliferation Treaty (such as Canada, Japan and many European nations) would militate in favor of a non-inimicality finding.

B. The NRC's Foreign Ownership Standard Review Plan

Neither the AEA nor NRC regulations provide substantive criteria specifying what type of foreign investments in an NRC licensee constitutes "foreign ownership, control, or domination" or is "inimical to the common defense and security." In the late 1990s, however, the NRC developed a Standard Review Plan ("SRP") addressing FOCD issues.[9] According to the SRP, an applicant is considered to be foreign owned, controlled, or dominated "whenever a foreign interest has the 'power,' direct or indirect, whether or not exercised, to direct or decide matters affecting the management or operations of the applicant."[10] The SRP thus identifies potential control over management and operations of the applicant/licensee as one of the key considerations in the NRC's evaluation of FOCD concerns.[11]

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allows U.S. persons to assist in atomic activities in those countries without prior permission under what is called a general authorization. For the countries listed in 10 CFR § 810.8(a), DOE does not allow U.S. persons to assist atomic activities without prior permission under what is called a specific authorization. Despite indications that NRC approvals of foreign investment are not based on the country involved, it seems likely that the NRC would be concerned about significant investment in U.S. nuclear generation assets by companies from the countries listed in Section 810.8(a); in other words, it may not be able to make a non-inimicality finding for companies from those countries. In fact, as discussed below, the only examples of approved foreign investments in nuclear power generation assets in the United States are from close allies that are not listed in Section 810.8(a).

8 As already noted in the previous footnote, the reason the NRC's decisions regarding FOCD have not turned on the identity of the nation seeking to invest may be related to the fact that the only examples of approved foreign investment in the commercial nuclear power industry in the United States are from nations that are considered to be close allies.

9 *See* "Final Standard Review Plan on Foreign Ownership, Control, or Domination," 64 Fed. Reg. 52,355, 52,357 (Sept. 28, 1999).

10 SRP § 3.2, 64 Fed. Reg. at 52,358.

11 As reflected in the SRP, the NRC may consider, *inter alia*, whether: (i) any foreign interests have management positions (such as directors, officers, or executive personnel) in the applicant's organization; (ii) any foreign interest controls, or is in a position to control, the election, appointment, or tenure of any of the applicant's directors, officers, or executive personnel (to include quantification of the percentage of outstanding voting stock held by foreign shareholders); (iii) the applicant is indebted to foreign interests or has contractual or other agreements with foreign entities that may affect control of the applicant; and (iv) the applicant has interlocking directors or officers with foreign corporations. SRP § 4.2, 64 Fed. Reg. at 52,359.

The SRP provides that, where a domestic applicant that is *wholly-owned* by a foreign parent seeks to acquire a 100 percent interest in a power plant, the applicant will not be eligible for a license.[12] The only exception to this general prohibition on 100 percent foreign ownership would be if the foreign parent's stock is "largely" owned by U.S. citizens, *i.e.*, it can be shown that the foreign entity is itself U.S.-owned and U.S.-controlled.[13] The SRP states that, if the parent's stock is owned by U.S. citizens, and "certain conditions are imposed, such as requiring that only U.S. citizens within the applicant organization be responsible for special nuclear material, the applicant may still be eligible for an NRC license, notwithstanding the foreign control limitation." [14]

In contrast, where the domestic applicant with a foreign parent is seeking *less than* a 100-percent interest in a nuclear power plant, the SRP provides that "further consideration" is required, *i.e.*, such participation by foreign investors is not *per se* prohibited.[15] In particular, the NRC will give "further consideration" to:

- the extent of the proposed partial ownership of the reactor;
- whether the applicant is seeking operating authority;
- whether the applicant has interlocking directors or officers with foreign entities and details concerning the relevant companies;
- whether the applicant would have access to restricted data; and
- details concerning ownership of the foreign parent company.[16]

The SRP also instructs the NRC Staff, upon reviewing the information submitted by the applicant, to consider whether additional action will be necessary to "negate" foreign ownership, control, or domination. Thus, if required, the applicant will submit a "negation action plan."[17]

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[12] SRP § 3.2, 64 Fed. Reg. at 52, 358. The SRP defines a "foreign interest" as "any foreign government, agency of a foreign government, or representative of a foreign government; any form of business enterprise or legal entity organized, chartered, or incorporated under the laws of any country other than the U.S. or its possessions and trust territories; any person who is not a citizen or national of the U.S.; and any U.S. interest effectively controlled by one of the above foreign entities." *Id.*

[13] This exception dates back to precedent established before the SRP was issued; it is also a situation that is rare and probably not of much interest to companies seeking to invest in U.S. commercial nuclear power plants. Since the SRP was issued, the examples of foreign investment all involve a foreign company owning a minority interest in a domestic nuclear utilization facility through a wholly-owned subsidiary incorporated in the United States.

[14] *See* SRP § 3.2, 64 Fed. Reg. at 52,358. Relatedly, the SRP states that "[a]n applicant that is *partially owned* by a foreign entity, for example, partial ownership of 50 percent or greater, may still be eligible for a license if certain conditions are imposed, such as requiring that officers and employees of the applicant responsible for special nuclear material be U.S. citizens." 64 Fed. Reg. at 52,358 (emphasis added). Thus, by way of example, the SRP states that even though a foreign entity contributes 50 percent or more of the costs of constructing a reactor, participates in the project review, is consulted on policy and costs issues, and is entitled to designate personnel to design and construct the reactor – *all subject to the approval and direction of the non-foreign applicant* – these facts alone do not require a finding that the applicant is under foreign control. *Id.*

[15] 64 Fed. Reg. at 52,358.

[16] *Id.*

[17] SRP § 4.4, 64 Fed. Reg. at 52,359.

Section 4.4 of the SRP states that "[w]hen factors not related to ownership are present, the plan shall provide positive measures that ensure that the foreign interest can be effectively denied control or domination."[18] The SRP lists examples of such measures, which may include:

- modification or termination of loan agreements, contracts, and other understandings with foreign interests;
- diversification or reduction of foreign source income;
- demonstration of financial viability independent of foreign interests;
- elimination or resolution of "problem debt;"
- assignment of specific oversight duties and responsibilities to board members; and
- adoption of special board resolutions.[19]

In summary, the SRP permits 100-percent *indirect* foreign ownership of a domestic "operator licensee" only if the foreign parent's stock is principally owned by U.S. shareholders and FOCD negation conditions acceptable to the NRC are implemented. Additionally, the SRP does not preclude 100-percent indirect ownership of a minority "owner licensee" that lacks operating authority. In practice, the NRC has permitted up to a 50-percent indirect ownership in an operator licensee and 100-percent indirect ownership of a minority owner licensee.

C. RIS 2000-01 & NISPOM

To gain a full picture of how FOCD issues affect the opportunities for foreign investment in the U.S. nuclear energy industry, two references, in addition to the SRP, should be considered: (1) the Regulatory Issue Summary issued by the NRC in 2000 ("RIS 2000-01"), and (2) Chapter 2, Section 3 of the NISPOM. These two sources provide guidance as to what circumstances and what percentages of foreign investment trigger potential FOCD review by the NRC. The negation measures set forth in the NISPOM may also present additional mitigation measures to be used to gain NRC approval of foreign investment.

The RIS 2000-01 established a reporting expectation for licensees that encounter potential FOCD issues. In the RIS 2000-01, the NRC Staff identified three potential "triggers" for raising reporting concerns: (1) reports to the Securities and Exchange Commission ("SEC") in the form of a Schedule 13D or 13G; (2) merger with a foreign owned entity; or (3) a Board of Directors becoming controlled or dominated by members who are not U.S. citizens. The lowest threshold for providing notice is established by the references to SEC Schedules 13D or 13G. Section 13(d) of the Securities Exchange Act of 1934, as amended, 15 U.S.C. 78m(d), requires that a person or entity that owns or controls more than 5 percent of the securities of a company must file notice with the SEC, and the SEC has adopted implementing regulations at 17 CFR § 240.13d-1. Thus, RIS 2000-01 suggests that just 5 percent foreign ownership of a company's stock triggers an NRC notice requirement and potential FOCD review.[20] Significantly, NRC

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[18] *Id.*

[19] *Id.*

[20] In the Fall of 2008, the NRC initiated a formal FOCD review based upon a report by CEG that EDF had increased its stock ownership to 9.5 percent. *See* Letter from E.J. Leeds to M.J. Wallace (Oct. 3, 2008) (NRC ADAMS Accession Number ML082610249).

includes Schedule 13G filers, which under SEC rules must specifically certify that the filer did not acquire its shares for the purpose of, or with the effect of, changing or influencing the control of the company.[21]

The second reference from which further potential guidance regarding FOCD issues can be drawn is Chapter 2, Section 3 of the NISPOM, which prohibits foreign persons or entitites from exercising ownership, control or influence ("FOCI") over companies that hold facility security clearances to access classified information. The NISPOM is established by the U.S. Department of Defense's Defense Security Service, but these baseline standards apply across various agencies, including security clearance determinations made by the U.S. Department of Energy and NRC. In addition, FOCI requirements are enforced by requiring a "Certificate Pertaining to Foreign Interests," also referred to as Standard Form 328 ("SF-328").

As with NRC's reference to Schedules 13D and 13G, the SF-328 establishes 5 percent ownership as the initial threshold for reporting, but also requires that companies disclose owners of less than 5 percent if they have special rights to appoint one or more manager or board member. The SF-328 and its instructions also point to a variety of other factors that will be considered, such as shareholder agreements, classes of stock owned, voting rights, non-U.S. citizens holding key positions, foreign persons being able to exercise control or influence, and foreign debt (especially if concentrated with a limited number of or jointly controlled creditors). These factors are more or less similar to the types of issues the NRC will consider in a review of FOCD.

Similar to the SRP, Section 2-303 of the NISPOM includes the concept of a "FOCI Action Plan" that might be implemented to negate or mitigate the risk of foreign ownership, control or influence. The NISPOM focuses on shielding foreign interests from access to classified information and allows the concern relating to foreign ownership or non-U.S. citizens in key roles to be addressed by policies adopted through Board Resolution. Another potentially useful concept for FOCI negation is the use of a Voting Trust Agreement and Proxy Agreement whereby a foreign owner relinquishes the rights of ownership (or control) to cleared and approved U.S. citizens. This approach may reflect another element of a negation action plan to address FOCD that might be approved by the NRC. However, it requires the foreign entity to be willing to have a strictly passive role in its investment.

III. FOREIGN INVESTMENT IN U.S. NUCLEAR POWER PLANTS: NRC PRECEDENT FOLLOWING THE ISSUANCE OF THE STANDARD REVIEW PLAN ON FOREIGN OWNERSHIP, CONTROL OR DOMINATION

A. British Energy & PECO Energy: AmerGen

One of the primary examples of the NRC's application of foreign ownership provisions following the issuance of the SRP on FOCD involved AmerGen Energy Company, LLC ("AmerGen"), which at the time of its formation was 50 percent owned by British Energy, Inc. (a Delaware corporation, which was wholly owned by British Energy plc, a U.K. company), and 50 percent owned by PECO Energy Company ("PECO"), a U.S. company. AmerGen was formed to purchase and operate nuclear utilization facilities (*e.g.*, nuclear power plants) in the

[21] *See* 17 CFR § 240.13d-1(c)(1) (requirements for Schedule 13G filing).

United States.[22] AmerGen obtained the NRC's consent to acquire the Three Mile Island Unit 1 ("TMI-1"), Oyster Creek, Clinton and Vermont Yankee[23] nuclear power plants. In consenting to the transfer, the NRC relied heavily on the following control-negation measures proposed by AmerGen: (1) the Chief Executive Officer, Chief Nuclear Officer, and other principal officers of AmerGen were to be U.S. citizens; (2) PECO was to have ultimate control over nuclear regulatory and safety issues; and (3) the Chairman of the Management Committee was to be a U.S. citizen appointed by PECO and have the deciding vote on such issues (even though PECO and British Energy each would hold an equal number of seats on the Management Committee).

The NRC's approval of the transfers of the licenses for these plants to AmerGen is instructive. The AmerGen decisions confirm that a foreign entity may indirectly hold a 50% ownership interest in a U.S. company that is the licensed owner and operator of a nuclear facility licensed under 10 CFR Part 50, provided that the foreign entity does not otherwise have the power to control the licensee's activities (*i.e.*, the key officers and managers of the licensee responsible for licensed activities are all U.S. citizens, and the foreign entity does not control either the board of directors or other governing body of the licensee, at least with respect to nuclear safety issues).[24]

Notably, in the AmerGen example British Energy was permitted to have personnel who assumed roles with respect to AmerGen operations. In many cases, these roles involved being in charge of subject matters for transition and due diligence teams, such as the attempts by AmerGen to acquire the Nine Mile Point and Vermont Yankee nuclear power stations. Also, once plant sites were acquired by AmerGen, some British Energy personnel were assigned to "line" positions within the AmerGen organization for periods of about 18-24 months. Generally, these assignments of British Energy personnel would involve 3-5 individuals per site or about 3-5% of the core management team. Positions at Oyster Creek held by British Energy personnel included Human Resources Manager, Resource Planning Manager, IT Manager, and Project Manager.

More significantly, British Energy personnel held the position of "President" of AmerGen. Thus, while the Chairman and CEO of AmerGen was a U.S. citizen, British Energy personnel were able to hold the very senior role and title of President, which fell directly in the "chain of command" for nuclear operations. In its Safety Evaluation approving the AmerGen acquisition of TMI-1, the NRC Staff addressed this as follows:

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[22] PECO's interest in AmerGen was subsequently transferred to Exelon Generation Company, LLC ("ExGen") in connection with the merger of PECO and Unicom Corporation, the parent company of Commonwealth Edison Company, to form Exelon Corporation. ExGen later purchased British Energy's interest in AmerGen and acquired 100% ownership of AmerGen in late 2003. In early 2009, the AmerGen units were consolidated into ExGen.

[23] The proposed acquisition of Vermont Yankee by AmerGen was approved by NRC, but never consummated. 65 Fed. Reg. 44549 (July 18, 2000).

[24] *See GPU Nuclear Inc.* (Three Mile Island, Unit No. 1) Order Approving Transfer of License and Conforming Amendment, 64 Fed. Reg., 19,202 (April 19, 1999); *Illinois Power Company* (Clinton Power Station) Order Approving Transfer of License and Conforming Amendment, 64 Fed. Reg. 67,598 (Dec. 2, 1999); *GPU Nuclear Inc.* (Oyster Creek), Order Approving Transfer of Licensee and Conforming Amendment, 64 Fed. Reg. 70,292 (Dec. 16, 1999).

> The president of AmerGen is Dr. Robin Jeffrey, a U.K. citizen. AmerGen indicated in the September 17, 1998, meeting with NRC staff that the president will not have decision-making authority with respect to TMI-1 operations. Rather, the president's duties will be directed towards business decisions such as future AmerGen acquisitions and financial matters. He will also monitor the performance of AmerGen's nuclear assets and will provide, from time to time, advice regarding operational matters.[25]

This suggests that the NRC will accept arrangements where personnel from a foreign entity investor could hold significant roles within the U.S. operations of a company with actual operating authority over nuclear power plants in the United States. This includes lower level supervisors and managers responsible for certain aspects of plant operations (line management), as well as senior level positions in the "chain-of-command" of plant management. However, to the extent foreign personnel hold senior positions in the "chain-of-command," a case would need to be made that both other personnel are managing day-to-day operations and that such a senior manager reports to a U.S. citizen who is subject to U.S. "control."

B. National Grid & New England Electric System: New England Power

Another post-SRP example of foreign ownership of a U.S. utilization facility (power reactor) involved the NRC license transfer applications arising out of the British National Grid's acquisition of the New England Electric System ("NEES"), and indirect acquisition of its subsidiary, New England Power Company's ("NEP") 9.9 percent and 12.2 percent ownership interests in the Seabrook and Millstone 3 plants, respectively.[26] This proposed transaction is significant, because it involved 100% foreign ownership of NEP, which was the licensed "owner" for Seabrook and Millstone 3, involving approximately 250 MWe of nuclear generation. NEP had a role as a co-owner, but NEP did not operate either of the plants involved. Under NRC case law, however, any "owner" or co-owner of a reactor must be a licensee.[27] As such, NEP held licenses that were issued under and subject to the FOCD restrictions in Section 103 of the AEA.

The applicant prepared a control-negation action plan that focused on the creation of a Nuclear Committee of the NEP Board of Directors.[28] Under the plan, all of the officers and

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[25] Safety Evaluation, "Transfer of Facility Operating License," Docket 50-289, page 16 (April 12, 1999).

[26] *See North Atlantic Energy Service Corporation* (Seabrook Station, Unit 1) Order Approving Application Regarding Merger of New England Electric System and the National Grid Group PLC, 64 Fed. Reg. 71,832 (December 22, 1999); *Northeast Nuclear Energy Company, et al*. (Millstone Nuclear Power Station, Unit 3) Order Approving Application Regarding Merger of New England Electric System and the National Grid Group PLC, 64 Fed. Reg. 72,367 (Dec. 27, 1999).

[27] *See Marble Hill*, ALAB-459, 7 NRC at 198-201.

[28] Note, however, that the negation measures in this case were influenced substantially by the intervention of another of the plants' owners in the NRC license-transfer proceeding. The applicant offered a control-negation action plan to avoid a hearing on these issues. As a result, the restrictions may be more severe than otherwise would have been imposed by the NRC. Indeed, in its Safety Evaluation, the NRC stated that: "The additional safeguards that were agreed to by NEP and the intervenors, requiring that all NEP Board members and officers must be U.S. citizens as long as NEP is a licensee for Millstone 3 or Seabrook, and requiring decisions to comply with agency and court orders to be made only by the Committee, provide protection above and beyond [the] initial NEP negation plan." Safety Evaluation by the Office of Nuclear Reactor Regulation, Proposed

directors of NEP must be U.S. citizens. The Nuclear Committee, in turn, was required to include at least three NEP Board members who were U.S. citizens elected to the Committee by the full NEP Board, with a majority of the Committee's members being independent directors. NEP's Nuclear Committee was required to meet quarterly, and it was empowered with sole discretion to act on behalf of NEP in all matters related to the operation, maintenance, contribution of capital, decommissioning, fuel cycle, and other matters relating to the nuclear plants. The full NEP Board retained decision-making authority with respect to NEP's interest in (1) closure, decommissioning or license renewal, and (2) sale, lease, or other disposition of NEP's interest in the plant. The NEP bylaws empowered and required members of the Nuclear Committee to report to NRC any action by a foreign citizen which the member believes is designed to unduly influence his or her behavior to the detriment of the national interest.

The NRC Staff found that the Committee "was effectively designed to have primary authority over nuclear issues of NEP such that foreign interests will not be able to *control* NEP within the meaning of the AEA and NRC regulations."[29] The NRC imposed two license conditions to enforce the commitments related to the Special Nuclear Committee.[30] Finally, the NRC Staff concluded that NEP's minority ownership interests did not give NEP the right to control the operation of the facility, or access to, or possession of, any special nuclear material or Restricted Data. The NRC Staff accordingly found that there was a reasonable basis to conclude that the transfer posed no threat to the common defense and security.

C. Scottish Power plc & NA General Partnership: PacificCorp

In 1999, Scottish Power plc formed a Nevada subsidiary, NA General Partnership, for purposes of acquiring PacifiCorp, which held a 2.5-percent ownership interest in the Trojan Nuclear Plant. As such, PacifiCorp was named as a co-owner licensee for the Trojan plant, and therefore, it held a license issued under Section 104 of the AEA and subject to the FOCD restrictions. Like NEP, PacifiCorp was not the licensed "operator" for the plant. The transaction involved a license transfer, and Scottish Power plc requested NRC approval of an indirect transfer of the license that would result from the proposed change in the ownership of PacifiCorp.[31] Specifically, the transfer related to a merger under which PacifiCorp would remain a domestic corporation, owned by the Nevada partnership, but become an indirect, wholly-owned subsidiary of ScottishPower plc, a public limited liability company incorporated under the laws of Scotland. ScottishPower plc, in turn, was a subsidiary of New ScottishPower plc, a public limited liability company also incorporated in Scotland, to be registered as a public utility holding company. PacifiCorp implemented a control-negation action plan substantially similar to that implemented by NEP. As in the NEP case, the NRC Staff concluded that the license transfer did not contravene the FOCD restrictions of the AEA and NRC regulations,

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Merger of New England Electric System and the National Grid Group PLC, Seabrook Station, Unit 1, Docket No. 50-443 at 8 (Dec. 10, 1999) ("National Grid Safety Evaluation").

[29] National Grid Safety Evaluation at 8 (emphasis added).

[30] *See* 64 Fed. Reg. at 72,368-69.

[31] *See PacifiCorp* (Trojan Nuclear Plant) Order Approving Application Regarding Proposed Merger, 64 Fed. Reg. 63,060 (November 18, 1999); Safety Evaluation by the Office of Nuclear Reactor Regulation, Proposed Merger of PacifiCorp and ScottishPower plc, Trojan Nuclear Plant, Docket No. 50-344 (Nov. 10, 1999).

provided that PacifiCorp. would be subject to two license conditions similar to those imposed on NEP in the National Grid case discussed above.

D. Électricité de France SA & Constellation Energy Group: Constellation Energy Nuclear Group

As of August 15, 2009, the proposed EDF-CEG transaction remains pending NRC approval. EDF, a French company majority owned by the French government, plans to acquire a minority interest (49.99%) in the nuclear assets of CEG. The transfer has been characterized as a corporate restructuring[32] where Constellation Energy Nuclear Group, LLC ("CENG") would emerge 49.99% owned by a subsidiary of EDF—EDF Development, Inc.—and 50.01% owned by CEG.[33] In addition, EDF, through another subsidiary, owns 9.5% of CEG's common stock. As discussed below, this anticipated approval would once again reinforce the validity of the AmerGen precedent approving a 50-50 ownership structure with restrictions substantially similar to those in AmerGen. Moreover, EDF's total ownership in the nuclear fleet arguably exceeds 50%, because it also owns 9.5% of the stock of CEG which owns 50% of the nuclear fleet. Arguably, the total foreign ownership involved approaches 55%.

CEG is a major supplier of electricity that owns a fleet of nuclear power plants—Calvert Cliffs Nuclear Power Plants, Unit Nos. 1 and 2; Nine Mile Point Nuclear Station, Unit Nos. 1 and 2; and R.E. Ginna Nuclear Power Plant—through its subsidiary CENG. CENG also owns the Calvert Cliffs Spent Fuel Storage Installation Facility. EDF is a Societe Anonyme that is currently 84.8% owned by the French government. EDF is the largest electricity provider in France, and the largest operator of nuclear power plants in the world. EDF manages its international businesses through a subsidiary EDF International SA ("EDFI"). EDFI has an American subsidiary, EDF Development, Inc., which is a wholly-owned subsidiary organized under Delaware law.[34]

In order to obtain approval of the transfer, CEG and EDF, through their respective subsidiaries, proposed the following restrictions on EDF's ability to exercise control over its ownership interests in the common stock and the nuclear assets. First, with regard to EDF's position in CEG's common stock, EDF cannot purchase more than 9.9% of CEG's common stock. Furthermore, EDF is required to vote its shares as the Board of CEG recommends, except in extraordinary circumstances.[35] The extraordinary circumstances allow EDF to vote the

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[32] The transaction was characterized as a corporation restructuring because there was not expected to be any affect on the technical or financial qualifications of the new CENG, or the decommissioning funding assurance provided by the licensee for any of the plants. For example, after the transaction, the same nuclear organization and staff would be responsible for the operation and maintenance of the nuclear facilities in question. *See* Letter from M.J. Wallace to U.S. NRC transmitting License Transfer Application (Jan. 22, 2009) (NRC ADAMS Accession Number ML090290101).

[33] The proposal included other transactions (*e.g.*, eliminating some corporate entities and creating others) that will not be discussed because a detailed discussion of these other transactions is not required for a complete analysis of the FOCD issues in this license transfer transaction.

[34] EDF Development's Board of Directors is comprised of four members, all of whom are French citizens.

[35] Pursuant to an Amended and Restated Investor Agreement, EDF can vote the shares according to its own interests when the action involves a merger, consolidation, share exchange, amalgamation or similar business combination, sale of all or substantially all of CEG's assets, or a majority of its shares, any split-off, spin-off, capitalization, or any extraordinary transaction involving the capital stock of CEG, any amendments to the

shares, regardless of what the Board of CEG recommends, when the actions involve significant and extraordinary corporate issues that have the potential to negatively affect investor interests.

Second, in order to mitigate EDF's ability to exert influence over CENG's nuclear assets, the proposed transaction includes the following limitations to assure U.S. "control":

- The Board of the new CENG will have 10 Directors, 5 appointed by CENG and 5 by EDF Development.
- The Chairman, Chief Executive Officer and Chief Nuclear Officer of CENG are required to be U.S. Citizens.
- The Chairman of the Board is appointed by CENG and has the deciding vote on issues relating to safety, security and reliability,[36] as well as any other matter that requires U.S. control.
- The Chairman can determine that there are "exigent" circumstances where the "deciding" vote applies to the decision.
- The Vice-Chairman of the Board is appointed by EDF Development.
- The CEO and CNO are appointed by the Board subject to the vote of the Chairman.
- A Nuclear Advisory Committee ("NAC") made up of U.S. Citizens who are not officers, directors or employees of CENG, CEG or EDF Development must be established. The NAC must, in an advisory capacity, at least once a year, prepare a report with supporting materials, advising the CENG Board whether additional measures should be taken to comply with U.S. law regarding FOCD.

The governance and FOCD mitigation for this transaction follow the AmerGen precedent, but do so with a few additional features: (1) the creation of the NAC; (2) the Chairman's deciding vote on reliability issues in addition to safety and security, as well as the ability to decide that an "exigent" matter exists where the "deciding" vote applies; and (3) the restrictions in the Investor Agreement on EDF's ability to exercise control over the common stock it owns. The provisions for the NAC and the Chairman's deciding vote make the governance even more robust than the AmerGen mitigation measures or "negation action plan."

It seems likely that the provisions relating to the scope and exercise of the Chairman's deciding authority will become a *de facto* requirement, because failure to include similar clarifications could give rise to questions as to the adequacy of the "deciding vote" in assuring U.S. control. However, the provision for the NAC and the terms of the Investor Agreement appear to be additional measures that are designed to address concerns regarding EDF's stock ownership in CEG. Thus, it is not clear that future structures will need to include similar provisions, unless such future structures also involve stock ownership similar to EDF's holding CEG stock.

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articles of incorporation or bylaws of CEG, any issuance of shares of capital stock, any other extraordinary transaction for which shareholder approval is required under Maryland law. In other words, EDF can vote the shares according to its own interests when the action could negatively affect its financial interests, and the vote would not invovle foreign ownership, domination or control over CENG's nuclear assets.

[36] Adding reliability to issues that must be under the control of U.S. Citizens is one of the characteristics that makes this transaction different than the AmerGen transaction.

IV. CONCLUSION

The NRC's recent actions regarding FOCD issues should be viewed as very encouraging to potential foreign investors in the U.S. nuclear sector. A foreign investor can acquire 100% ownership of a U.S. company that holds one or more minority ownership interests in the U.S. nuclear reactors, provided that the U.S. company is not the "operator" of the plant(s). Alternatively, foreign investors can take significant ownership positions (up to 50%) in a U.S. reactor operator, including a company that owns and operates a "fleet" of reactors. In doing so, the foreign investor can play a role beyond being a passive investor, including having a voice in business matters of the U.S. company, having personnel participate in U.S. operations, and sharing "best practices" from non-U.S. operations. In doing so, however, the foreign investor must have a U.S. partner and must cede "control" over nuclear security, safety and reliability matters to the U.S. company and U.S. personnel. Thus, there are clearly limits to the role the foreign investor can play.