

U.S. NUCLEAR FOREIGN OWNERSHIP POLICY READY FOR A REFRESHED INTERPRETATION

*Sachin Desai and Kathleen Schroeder**

Synopsis: While the United States remains the global leader in nuclear energy generation and technology, the nuclear energy industry is seeing explosive growth abroad. In the past several years, foreign nuclear companies have expressed interest in purchasing existing reactors and building new ones in the U.S. The Nuclear Regulatory Commission (NRC) is faced with the challenge of balancing competing goals: reducing carbon emissions through new, potentially safer technologies while complying with the Atomic Energy Act (AEA) restriction on foreign ownership of U.S. nuclear reactors. Recent actions have pushed the Commission to reassess this balance. This article proposes a path forward for the Commission to provide clarity in this area of law and to encourage investment in the U.S. nuclear sector.

The Atomic Energy Act prohibits foreign “owned, controlled, or dominated” (FOCD) licensees from owning or operating nuclear reactors in the United States. This provision is inherently vague, especially as it applies to the prohibition of foreign ownership. As the Commission has discussed this issue, a split has emerged between those within the Commission interpreting the FOCD provision permissively, as allowing up to 100% foreign indirect ownership of U.S. reactors, and those reading it strictly, who would allow no more than 50% foreign ownership in any form. Besides the obvious deadlock this creates, it results in the Commission adopting a potentially inconsistent approach, which could be reversed by a reviewing court. This uncertainty will lead to future litigation and uncertainty amongst applicants, the public, and Atomic Safety and Licensing Boards tasked with deciding whether to permit foreign companies’ purchase or construction of nuclear facilities in the United States.

This article reviews recent trends in the global nuclear energy market as well as the legislative history of the AEA’s FOCD provision, building off analyses performed by the NRC Staff and the Commission. It critiques the various positions taken by the Commissioners, and challenges each sides’ legal arguments. The authors then propose that case law, legislative history, agency practice across the federal government, and a context-driven reading of the text of the FOCD provision under the *Chevron* doctrine can allow for 100% foreign indirect ownership of U.S. nuclear reactors. This interpretation of the FOCD provision does not conflict with the AEA’s goal of ensuring national security.

* Sachin Desai is a law clerk for the Atomic Safety & Licensing Board Panel at the U.S. Nuclear Regulatory Commission (NRC). Kathleen Schroeder is an attorney with the Department of Energy General Counsel’s Office for Civilian Nuclear Programs. The views presented in this article are the authors’, and do not represent those of the Atomic Safety & Licensing Board Panel, the Office for Civilian Nuclear Programs, the NRC, the U.S. Department of Energy, or any other person or entity. A draft of this article was shared with the NRC and the Nuclear Energy Institute prior to publication.

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I. INTRODUCTION

A. *Increasing Globalization of the Nuclear Energy Industry*

With ninety-nine reactors producing around 771 billion kilowatt-hours in 2015, the United States remains far and away the world’s largest generator of

nuclear power.¹ However, the future of the industry is increasingly being shaped by investment in the rest of the world, in particular the developing world.

China leads the world in new nuclear reactors, with thirty reactors in operation, twenty-one under construction, and more primed to start construction.² India is planning to drastically increase nuclear power production,³ including tentative arrangements to build the largest nuclear power project in the world in Jaitapur, India.⁴ Apart from China and India, the rest of the developing world is also showing a keen interest in nuclear power. Iran's plans to develop nuclear power have been well-publicized, but few know that Saudi Arabia plans to build sixteen reactors.⁵ The UAE,⁶ Jordan,⁷ Egypt,⁸ Romania,⁹ Argentina,¹⁰ Turkey,¹¹ and Hungary,¹² just to name a few, are all building or have inked plans to build new reactors, in some cases their country's first reactor.

American, Japanese, or European companies are not the ones building these projects. Chinese companies are leading the projects in Romania and Argentina,¹³ Russian companies lead the projects in Jordan, Turkey, Hungary, and Egypt,¹⁴ and a Korean consortium the project in the UAE.¹⁵ Although the Jaitapur project in India is being led by French-owned Areva, India has developed the capacity to

1. *Nuclear Power in the World Today*, WORLD NUCLEAR ASSOC., <http://www.world-nuclear.org/info/current-and-future-generation/nuclear-power-in-the-world-today/> (last updated Feb. 2015) (on file with authors); Electric Power Monthly, ENERGY INFO. ASSOC. (Aug. 2015), available at http://www.eia.gov/electricity/monthly/current_year/august2015.pdf (rolling twelve-month data).

2. *Nuclear Power in China*, WORLD NUCLEAR ASSOC., <http://www.world-nuclear.org/information-library/country-profiles/countries-a-f/china-nuclear-power.aspx> (last updated Mar. 2016).

3. *Why India's Nuclear Power Output is Surging*, BUS. STANDARD (Feb. 3, 2015), http://www.business-standard.com/article/economy-policy/why-india-s-nuclear-power-output-is-surging-115020300354_1.html.

4. *The Jaitapur Nuclear Power Project*, AREVA INDIA, <http://india.areva.com/EN/home-1029/areva-s-nuclear-epr-projects-in-india-areva-india.html> (last visited Nov. 20, 2015); *Jaitapur Nuclear Plant: Next Stop, Safety Assessment*, INDIAN EXPRESS (May 20, 2015), <http://indianexpress.com/article/india/india-others/jaitapur-nuclear-plant-next-stop-safety-assessment/>.

5. *Saudis Make Push for Nuclear Energy*, WALL ST. J. (Sept. 15, 2015), <http://www.wsj.com/articles/saudis-make-push-for-nuclear-energy-1442350064>.

6. *UAE Nuclear Project Enters Critical Phase*, NAT'L (July 7, 2015), <http://www.thenational.ae/business/energy/uae-nuclear-project-enters-critical-phase>.

7. *Royal Recognition for Jordan's Nuclear Program*, WORLD NUCLEAR NEWS (Feb. 2, 2016), <http://www.world-nuclear-news.org/NP-Royal-recognition-for-Jordan-nuclear-program-0202167.html>.

8. *Russia, Egypt Sign Deal on Construction of Egypt's First Nuclear Plant*, CNN (Nov. 19, 2015), <http://www.cnn.com/2015/11/19/middleeast/russia-egypt-nuclear-deal/>.

9. *Romania and China Seal Cernavoda Agreement*, WORLD NUCLEAR NEWS (Nov. 10, 2015), <http://www.world-nuclear-news.org/NN-Romania-and-China-seal-Cernavoda-agreement-10111501.html>.

10. *China to Build Two Nuclear Plants in Argentina in \$15bn Deal*, FIN. TIMES (Nov. 17, 2015), <http://www.ft.com/cms/s/0/2d264e78-8cf9-11e5-a549-b89a1dfede9b.html#axzz3s4nzQNow>.

11. *Ground Broken for Turkey's First Nuclear Power Plant*, WORLD NUCLEAR NEWS (Apr. 15, 2015), <http://www.world-nuclear-news.org/NN-Ground-broken-for-Turkeys-first-nuclear-power-plant-1541501.html>.

12. Gabriella Lovas & Edith Balaz, *Hungary to Push on with Russian Nuclear Deal Chided by EU*, BLOOMBERG BUS. (Nov. 20, 2015), <http://www.bloomberg.com/news/articles/2015-11-20/hungary-s-orban-presses-ahead-on-nuclear-deal-in-defiance-of-eu>.

13. *Supra* notes 9, 10.

14. *Supra* notes 7, 8, 11, 12.

15. *Supra* note 6.

construct its own nuclear power reactors.¹⁶ While Western and Japanese companies are showing reluctance to invest in nuclear power, new players such as Russia and China are eager to pour their money into nuclear projects.¹⁷

This is in part because the U.S., European, and Japanese nuclear energy economies are stepping away from nuclear power while the developing world is surging ahead. Since 2010 the United States has retired or planned to retire at least six nuclear plants,¹⁸ with more to follow,¹⁹ and is building only a few new reactors to offset the losses.²⁰ In France, delays and regulatory hurdles have led to tremendous losses for French nuclear company Areva SA, which is now majority-owned by Électricité de France (EDF).²¹ Germany has planned to shut down all of its reactors by 2022,²² while France is looking to cut its dependence on nuclear power to 50% of its electricity need. Japan's restart of its reactor fleet post-Fukushima is slow and uncertain, and while it waits, its countrywide carbon emissions skyrocket.²³

While many politicians in America, Europe, and Japan have categorized nuclear power as a hazard, the developing world is taking a long-term view, in which nuclear power is one of the few viable options to cost-effectively reduce

16. *Indian-built Arihant Nuclear Submarine Activated*, BBC (Aug. 10, 2013), <http://www.bbc.com/news/world-asia-india-23648310>.

17. *Supra* notes 8–11; Camila Ruz, *Why Does the U.K. Need China to Build Its Nuclear Plants?*, BBC MAG. (Sept. 25, 2015), <http://www.bbc.com/news/magazine-34329617>.

18. *Costs Lead Officials to Pull the Plug on Pilgrim*, BOS. GLOBE (Oct. 13, 2015), <https://www.bostonglobe.com/metro/2015/10/13/energy-close-pilgrim-nuclear-power-station-nuclear-power-plant-that-opened/fNeR4RT1BowMrFApb7DqQO/story.html>; *Lack of State Aid Spurs Energy Move to Close FitzPatrick Nuclear Plant*, IHS THE ENERGY DAILY (Nov. 3, 2014), http://www.theenergydaily.com/nuclear/Lack-of-state-aid-spurs-Energy-move-to-close-FitzPatrick-nuclear-plant_13271.html; *Vermont Yankee Nuclear Plant Begins Slow Process of Closing*, N.Y. TIMES (Jan. 4, 2015), <http://www.nytimes.com/2015/01/05/us/vermont-yankee-nuclear-plant-begins-slow-process-of-closing.html>; *Nuclear Power Plant in Limbo [San Onofre] Decides to Close*, N.Y. TIMES (June 7, 2013), <http://www.nytimes.com/2013/06/08/business/san-onofre-nuclear-plant-in-california-to-close.html>; *As Price of Nuclear Energy Drops, a Wisconsin Plant [Kewaunee] Is Shut*, N.Y. TIMES, (May 7, 2013), <http://www.nytimes.com/2013/05/08/business/energy-environment/kewaunee-nuclear-power-plant-shuts-down.html>; *Duke Energy Announces Closing of Crystal River Nuclear Power Plant*, TAMPA BAY TIMES (Feb. 5, 2013), <http://www.tampabay.com/news/business/energy/duke-energy-announces-closing-of-crystal-river-nuclear-power-plant/1273794>.

19. *NRC Issues First Signals on Updating Plant Closure Rules*, IHS THE ENERGY DAILY (Nov. 19, 2015), at 4.

20. *Is the U.S. Falling Behind in the Nuclear Energy Race?*, INST. FOR ENERGY RES. (Mar. 31, 2014), <http://instituteeforenergyresearch.org/analysis/is-the-u-s-falling-behind-in-the-nuclear-energy-race/>.

21. Inti Landauro & Nadya Masidlover, *Areva Moves Ahead With Overhaul Plan as Loss Widens*, WALL ST. J. (March 4, 2015, 6:26 AM), <http://www.wsj.com/articles/areva-moves-ahead-with-overhaul-plan-as-loss-of-balloons-1425468395>.

22. *Germany to Shut All Nuclear Reactors*, GUARDIAN (May 30, 2011), <http://www.theguardian.com/world/2011/may/30/germany-to-shut-nuclear-reactors>. This has yet to resolve itself, as foreign investors have threatened investment arbitration suits seeking billions in damages. See generally *The Arbitration Game*, ECONOMIST (Oct. 11, 2014), <http://www.economist.com/news/finance-and-economics/21623756-governments-are-souring-treaties-protect-foreign-investors-arbitration>. For an excellent review on how public-interest regulations can interact with foreign investor protections, see also Ankita Ritwik, *Tobacco Packaging Arbitration and the State's Ability to Legislate*, 54 HARV. INT'L L.J. 523 (2013).

23. Chisaki Watanabe & Maiko Takahashi, *Japan Ranks Among Worst Performers in Climate Change Efforts*, BLOOMBERG BUS. (Dec. 10, 2015), <http://www.bloomberg.com/news/articles/2015-12-10/japan-ranks-among-worst-performers-in-climate-change-efforts>.

carbon emissions while satisfying baseload demand.²⁴ Energy experts briefed at the Paris COP21 Climate Meeting suggested that, in some countries with growing power demands, like China, nuclear power would be essential for staying within a strict emissions budget.²⁵ These experts chastised the United States for shutting down existing nuclear plants due to the near-term low profitability.²⁶ Yet, while Secretary of Energy Ernest Moniz stated that, “[w]e need to build on America’s clean energy successes and drive innovation from renewables to carbon capture to nuclear,”²⁷ there are few indicators of a strong push in nuclear energy policy at home.²⁷

A key result of this trend is that leadership in research and development of the next generation of nuclear reactors is moving away from the United States to destinations such as China and India. India is leading research on plants that use thorium as a fuel instead of uranium.²⁸ China is spending big both on fission research²⁹ and fusion research,³⁰ and has plans to develop its own floating small modular reactor.³¹ Russia has recently activated the world’s largest fast reactor.³²

24. See, e.g., *China, India Make Nuclear Energy, Climate Change Linkage*, NUCLEAR ENERGY INST. (Nov. 2009), <http://www.nei.org/News-Media/News/News-Archives/china-india-make-nuclear-energy-climate-change-link>; Richard Anderson, *Nuclear power: Energy for the Future or Relic of the Past?*, BBC (Feb. 27, 2015), <http://www.bbc.com/news/business-30919045>; see also James Conca, *Bill Gates Making Progress On Next Generation Of Nuclear Power—In China*, FORBES (Oct. 2, 2015), <http://www.forbes.com/sites/jamesconca/2015/10/02/bill-gates-forges-nuclear-deal-with-china/> (“China believes in climate change and wants to reduce the smog that’s choking its cities and threatening their emerging health care system.”).

25. *A Path for Climate Change, Beyond Paris*, N.Y. TIMES (Dec. 1, 2015), <http://www.nytimes.com/2015/12/01/science/beyond-paris-climate-change-talks.html>.

26. *Id.*

27. *U.S. Energy Secretary Ernest Moniz Statement on Conclusion of COP21 Climate Negotiations*, BREAKINGENERGY.COM (Dec. 14, 2015), <http://breakingenergy.com/2015/12/14/u-s-energy-secretary-ernest-moniz-statement-on-conclusion-of-cop21-climate-negotiations/>.

28. *World’s First Thorium Reactor Designed*, INT’L THORIUM ENERGY ASSOC. (Feb. 15, 2014), <http://www.itheo.org/articles/world%E2%80%99s-first-thorium-reactor-designed>; *India Plans ‘Safer’ Nuclear Plant Powered by Thorium*, GUARDIAN, (Nov. 1, 2011), <http://www.theguardian.com/environment/2011/nov/01/india-thorium-nuclear-plant>.

29. Shannon Tiezzi, *Why China Will Go All-In on Nuclear Power*, THE DIPLOMAT (Oct. 8, 2014), <http://thediplomat.com/2014/10/why-china-will-go-all-in-on-nuclear-power/> (“According to comments made in September by National Energy Administration director Wu Xinxiang, China hopes to be a world leader in nuclear power in 2020 by pursuing technological breakthroughs in current nuclear technology.”); *China’s Next Generation Nuclear Ambitions*, WEINBERG NEXT NUCLEAR BLOG (Nov. 25, 2014), <http://www.the-weinberg-foundation.org/2014/11/25/chinas-next-generation-nuclear-ambitions/> (discussing different research initiatives in China).

30. Patrick Tucker, *America’s Fusion Race with China is Heating Up, So Why is Washington Getting Cold?*, DEF. ONE (Feb. 14, 2014), <http://www.defenseone.com/ideas/2014/02/americas-fusion-race-china-heating-so-why-washington-going-cold/78848/> (“The Chinese are training 2,000 scientists to take advantage of the gains in international research [into fusion],” Andrew Holland of the American Security Project said.”).

31. *IAEA Safety Review for Chinese Small Reactor*, WORLD NUCLEAR NEWS (Apr. 21, 2015), <http://www.world-nuclear-news.org/NN-IAEA-safety-review-for-Chinese-small-reactor-2104154.html> (discussing development of the ACP100).

32. *Russia Turns on World’s Largest Fast Reactor*, 43 ENERGY DAILY 239 (Dec. 16, 2015). Indeed, foreign entities are developing a number of small modular reactor and fast reactor designs. *International Advanced Reactors*, Department of Energy Presentation on Development and Deployment of Non-Light Water Reactor Technologies, slide 15 (Mar. 9, 2016), available at <https://ric.nrc-gateway.gov/docs/abstracts/wellingc-w13-hv.pdf>.

One of the world's most promising fusion energy startups is based in Canada.³³ Moreover, United States companies developing cutting edge reactor designs are moving abroad for development.³⁴ TerraPower, Bill Gates' nuclear startup with a novel Travelling Wave Reactor (TWR) design, recently signed an agreement to develop its prototype TWR and first commercial reactor in China, in conjunction with the China National Nuclear Corporation (CNNC).³⁵ But TerraPower is not alone; for example, secretive fusion-energy startup Tri Alpha Energy has sought major investment from Russian government-backed venture capitalists.³⁶ When companies such as these later seek to return and build new plants in the United States, they will have necessarily taken foreign funding and may even be majority-foreign-owned.³⁷

B. The Need to Revisit Restrictions on Foreign Ownership of U.S. Nuclear Power Reactors in a Changing World

The *average* age of a nuclear reactor in the U.S. is 30 years old.³⁸ Given the carbon-cutting requirements of the Clean Power Plan and the needs for addressing climate change generally, even if U.S. nuclear reactors do not grow as a share of the energy mix they will need to be replaced in the future.³⁹ However, if current trends continue, U.S. utilities will need to work with foreign vendors and accept foreign capital to construct new plants. In addition, intangible assets such as expertise and experience with new reactor designs will increasingly have to be imported.⁴⁰ This means that foreign ownership and control of the U.S. nuclear

33. M. Mitchell Waldrop, *Plasma Physics: The Fusion Upstarts*, NATURE (July 23, 2014), <http://www.nature.com/news/plasma-physics-the-fusion-upstarts-1.15592>.

34. See, e.g., Jeff Beattie, *New Group to Push U.S. Deployment of Small Nukes*, IHS THE ENERGY DAILY, at 4 (Jan. 28, 2016).

35. Conca, *supra* note 24; TerraPower, *CNNC to Develop Sodium-Cooled Nuclear Reactor*, PENNENERGY (Sept. 23, 2015), <http://www.pennenergy.com/articles/pe/2015/09/terrapower-cnnc-to-develop-sodium-cooled-nuclear-reactor.html>.

36. Michael Kanellos, *Hollywood, Silicon Valley and Russia Join Forces on Nuclear Fusion*, FORBES (Mar. 11, 2013), <http://www.forbes.com/sites/michaelkanellos/2013/03/11/hollywood-silicon-valley-and-russia-join-forces-on-nuclear-fusion/>.

37. As seen in the examples discussed below with the Calvert Cliffs (EDF), South Texas (Toshiba), and Hinkley Point (Areva/EDF & CNNC) reactor projects, nuclear power plant suppliers often end up taking large ownership shares. See, e.g., *infra* notes 49, 59 135; see also Mari Iwata, *Nuclear Energy Firms Raise Stakes in Projects*, WALL ST. J. (Dec. 9, 2014), <http://www.wsj.com/articles/nuclear-energy-firms-raise-stakes-in-projects-1418104152>; *Innovative Ways of Funding Nuclear Power Projects*, WORLD NUCLEAR NEWS (Feb. 18, 2016), <http://www.world-nuclear-news.org/V-Innovative-ways-of-funding-nuclear-power-projects-18021601.html>. It would be no surprise to see TerraPower and other foreign reactor vendors not just offering to build plants, but also taking ownership stakes in them.

38. *Frequently Asked Questions, How Old Are U.S. Nuclear Power Plants and When Was the Last One Built?*, U.S. ENERGY INFO. ADMIN., <http://www.eia.gov/tools/faqs/faq.cfm?id=228&t=21> (last updated Feb. 20, 2015).

39. See, e.g., *Nuclear Retirements Would Sabotage Clean Power Plan Carbon Reductions*, ENERGY COLLECTIVE (Sept. 1, 2015), <http://www.theenergycollective.com/jessejenkins/2266234/nuclear-retirements-would-sabotage-clean-power-plan-carbon-goal>.

40. For example, Congressman Randy Weber, chairman of the Subcommittee on Energy of the Committee on Science Space and Technology, stated that “[w]e have to maintain our R&D capabilities to develop cutting-edge nuclear technology here in America, or in the not-too-distant future we’ll be importing reactors from overseas.” *NRC Should Play Role in Bringing Advanced Reactors to DOE Sites: Former Chair*, INSIDE NRC (Vol. 37 No. 25, Dec. 14, 2015); see also *The Green’s Nuclear Identity Crisis*, THE NAT’L REVIEW (Feb. 17,

fleet will increase by necessity. This may not be something to fear, however. As discussed above, the foreign companies investing the U.S. nuclear industry will not be gaining, but instead providing the know-how and technology; indeed, based on current trends, foreign involvement may become more of a necessity than a preference if we are to maintain the modernity of the U.S. nuclear industry.

Foreign involvement in the U.S. nuclear industry is not a new phenomenon. For instance, eight of the fifteen uranium mines in the U.S. are foreign-owned⁴¹ and the majority of the U.S. uranium supply comes from abroad.⁴² Two of the largest nuclear plant construction companies in the U.S. are joint ventures with Japanese companies: GE Hitachi is a joint venture 40% funded by the Japanese company Hitachi,⁴³ and Westinghouse is 90% owned by Japanese firms Toshiba and IHI.⁴⁴ A number of foreign-owned companies, including Japan's Mitsubishi, and China's CNNP, have indicated interest in buying a stake in France's Areva after the EDF buyout.⁴⁵ The next domain for foreign entry will be in reactors.

The potential scale of foreign ownership in the construction and operation of new reactors, which has generally been the domain of domestic companies and investors, could grow exponentially. The United Kingdom (UK) serves as an example. In a speech by Amber Rudd in November of 2015, the UK Secretary of State for Energy and Climate Change explained that the current UK government will heavily focus on nuclear power along with natural gas development in the future.⁴⁶ To accomplish this, in September Secretary Rudd urged China to help be an on-the-ground-floor investor in this new initiative.⁴⁷ EDF announced recently that CNNC has agreed to take a 33% stake in the planned UK Hinkley Point C nuclear plant in southwestern England in exchange for EDF's assistance in gaining UK approval for China's flagship advanced reactor, with potential for

2016), <http://www.nationalreview.com/article/431460/nuclear-energy-greens-support> (“Furthermore, the longer the U.S. delays in supporting next-generation nuclear, the more likely it is that advanced reactors will be built in places like China or Canada.”).

41. *US Uranium Mining and Exploration*, WORLD NUCLEAR ASSOC., <http://www.world-nuclear.org/info/Country-Profiles/Countries-T-Z/Appendices/US-Nuclear-Fuel-Cycle-Appendix-1—US-Uranium-Mining-and-Exploration/> (last updated Nov. 2015).

42. *Domestic Uranium Production Report*, U.S. ENERGY INFO. ADMIN, at 12 (Apr. 2015), available at <http://www.eia.gov/uranium/production/annual/pdf/dupr.pdf>.

43. *GE and Hitachi Form Nuclear Energy Unit*, N.Y. TIMES (July 10, 2007), http://www.nytimes.com/2007/07/10/business/worldbusiness/10iht-hitachi.1.6586445.html?_r=0.

44. *Toshiba to Buy Shaw's stake in Westinghouse*, WORLD NUCLEAR NEWS (Oct. 10, 2012), http://www.world-nuclear-news.org/C-Toshiba_to_buy_Shaws_stake_in_Westinghouse-1010124.html.

45. *Areva and EDF to Keep 66 Pct of Nuclear Reactor Firm*, REUTERS (Oct 6, 2015, 4:13 PM), <http://af.reuters.com/article/energyOilNews/idAFL8N1263S020151006>; *Areva to Tap China, Gulf Investors in Capital Increase Plan*, BLOOMBERG BUS. (Oct. 6, 2015), <http://www.bloomberg.com/news/articles/2015-10-06/areva-to-tap-china-gulf-investors-in-capital-increase-plan>; *Areva, EDF Seek Investment from Mitsubishi Heavy: Nikkei*, REUTERS (Sept. 21, 2015), <http://www.reuters.com/article/2015/09/22/us-mitsubishi-nuclear-idUSKCNORM04720150922#5UV0o94ODoEQb9Si.97>.

46. Rowena Mason, *UK to Close All Coal Plants in Switch to Gas and Nuclear*, GUARDIAN (Nov. 18, 2015), <http://www.theguardian.com/environment/2015/nov/18/energy-policy-shift-climate-change-amber-rudd-backburner>.

47. George Parker, *Amber Rudd Urges Beijing to Drive UK Nuclear Power Renaissance*, FIN. TIMES (Sept. 21, 2015), <http://www.ft.com/intl/cms/s/0/5cb6c9d4-5f8f-11e5-a28b-50226830d644.html#axzz3sGyYUm9>.

deploying it in the UK.⁴⁸ UK Chancellor George Osborne has said that CNNC's participation could lead to China developing and owning a future nuclear plant in eastern England, possibly at Bradwell, a site earmarked for nuclear development.⁴⁹ As part of this deal, Chinese companies are close to submitting for design assessment in the UK its indigenously-designed "Hualong One" reactor for eventual development in Essex.⁵⁰ Given China's activity in the UK, it is not incredible to imagine that China would make its next investment in the United States. Although past efforts by EDF to enter the U.S. nuclear market have been unsuccessful,⁵¹ in part due to America's foreign ownership restrictions that are the focus of this article, China's recent tactics indicate that they are likely to attempt to enter the U.S. nuclear market soon.⁵²

The primary legal barrier to foreign investment in U.S. nuclear reactor industry is found in the Atomic Energy Act's (AEA)⁵³ prohibition on foreign ownership, control, or domination of U.S. nuclear reactor licensees, herein called the "FOCD provision." As we will discuss further, the AEA prohibits granting a nuclear reactor construction or operating license to a "*corporation or other entity if the Commission knows or has reason to believe it is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government.*"⁵⁴ Although the key terms of this provision, "owned, controlled, or dominated" are vague and open to interpretation, the Nuclear Regulatory Commission (NRC or Commission)⁵⁵ has been alleged to have strictly applied the provision since the Cold War, when nuclear power was intrinsically linked in the U.S. social consciousness with fear of nuclear war, and access to nuclear technology was largely monopolized by Soviet or NATO countries.

A key point of contention has been the definition of the word "owned" in the FOCD provision, because while control and domination can both be mitigated,

48. Jeff Beattie, *China Moves on Nuke Exports by Backing Pricey UK Plant*, IHS THE ENERGY DAILY (Oct. 22, 2015), http://www.theenergydaily.com/publications/ed/China-moves-on-nuke-exports-by-backing-pricey-UK-plant_13223.html.

49. *China Could Develop and Own Nuclear Plant in Britain – Chancellor*, REUTERS (Sep 21, 2015, 6:46 PM), <http://uk.reuters.com/article/2015/09/21/uk-energy-nuclear-britain-hinkley-idUKKCN0RK15920150921>.

50. *China Wants to Start UK Design Assessment of Hualong One in June*, INSIDE NRC (Jan 25, 2016).

51. Geraldine Amiel, *EDF Begins Withdrawal from U.S. Nuclear*, WALL ST. J. (July 30, 2013, 12:30 PM), <http://www.wsj.com/articles/SB10001424127887324354704578637871199992276>.

52. See, e.g., Richard Anderson, *Nuclear power: Energy for the Future or Relic of the Past?*, BBC NEWS (Feb. 27, 2015), <http://www.bbc.com/news/business-30919045>.

53. "AEA" refers to the current version of the Atomic Energy Act. 42 U.S.C. §§ 2011-2296b-7 (2010), as amended.

54. 42 U.S.C. § 2133(d). This article focuses on nuclear power reactors and talks about them in particular, but the FOCD provision covers all "production" and "utilization" facilities, terms which are defined below. (emphasis added). *Id.*; *infra* notes 91–92. In the FOCD provision the "corporation or other entity" that holds the license is not defined, and therefore plausibly could include foreign corporation or entities. While this idea is explored below, *infra* notes 57, 206, the authors assume that the licensee (e.g., reactor operator) or applicant is a domestic U.S. corporation or entity, which appears always to be the case. *Infra* note 57. The question the article addresses has to do with whether that domestic licensee/applicant entity can be owned by a foreign person, corporation, or other entity.

55. "NRC Staff," a term used below (sometimes identified simply as "Staff"), refers to the agency civil service personnel that run the affairs of the agency. They are subject to oversight and direction by the Commission. Use of the terms "NRC," "agency," or "Commission" in this article indicate a position taken or endorsed by the Commissioners acting as a whole, not just the NRC Staff.

foreign ownership may act as a complete bar to licensing.⁵⁶ In particular, there is controversy as to whether the AEA prohibits *greater than 50% ownership of U.S. nuclear reactor licensees*, and how its prohibitions apply to *indirect*⁵⁷ ownership of nuclear reactor licensees. If majority foreign ownership of nuclear plant licensees, direct or indirect, is not allowed, it could significantly impact the role of foreign entities in developing the next generation of nuclear plants in the United States. As discussed more below, the Commission has historically been hesitant to make definitive statements on this topic, leading the Commission's Staff to reach diverging views with applicants on the meaning of the term.

The limits of the FOCD provision have been tested as foreign companies have attempted to move into the U.S. nuclear industry, with mixed results. In 2012, an Atomic Safety & Licensing Board (Licensing Board) granted summary

56. While "control" and "domination" concerns are important to any license applicant, they can be mitigated through NRC-created Negation Action Plans (NAPs). This flexible option, along with the vagueness of the FOCD provision as detailed below, gives the NRC significant flexibility to work with license applicants and the public to ensure that domestic power plants are not subject to improper forms of foreign control or domination. Moreover, if the NRC Staff, applicant, or public disagree on the effectiveness of a NAP to mitigate foreign control or domination concerns, a mechanism exists to resolve such disputes on a case-by-case basis before the Atomic Safety & Licensing Board Panel (ASLBP) and then directly with the Commission. This process has been shown to operate effectively in the *South Texas* proceeding. *Infra* § IV.A.2.d. On the other hand, the ownership term of the FOCD provision has the potential to act as a complete bar to licensing in many cases, depending on how it is interpreted. *Infra* § III.A.

57. The authors understand "direct" owners to be the immediate parents of the "corporation or other entity" under examination in the FOCD provision, a.k.a the licensee/applicant. "Indirect" owners, on the other hand, are not the parents of licensee/applicant, but instead have a stake in that parent entity. For example, if X is the licensee/applicant, Y the parent of X, and Z the parent of Y, Y would be the *direct* owner of X, and Z would be the *indirect* owner of X. This definition aligns with traditional corporate law principles. *See, e.g.*, Gary Locke et al., *Direct Investment Concepts* § 1.8, in *U.S. International Transactions Accounts: Concepts and Estimation Methods* (2011), available at <http://www.bea.gov/international/pdf/Concepts%20and%20Estimation%20Methods.pdf>; BLACK'S LAW DICTIONARY (10th ed. 2014) (defining "indirect" or "mediate" possession as "[p]ossession of a thing through someone else, such as an agent."). The licensee/applicant itself is undefined in the FOCD provision, but assumed to be a U.S. entity for this article. *Supra* note 54.

The NRC Staff defines "direct" and "indirect" slightly differently. *See e.g.*, MARK A. SATORIUS, NUCLEAR REGULATORY COMM'N STAFF, FRESH ASSESSMENT OF FOREIGN OWNERSHIP, CONTROL, OR DOMINATION OF UTILIZATION FACILITIES, SECY-14-0089, at 3 n.1 (Aug. 20, 2014) [hereinafter SECY-14-0089 or SECY Paper] (defining indirect ownership as "a situation in which the entity in question is the NRC licensee's (or applicant's) parent company or owns other companies in the ownership hierarchy. In contrast, 'direct' ownership means that the entity in question holds the NRC license or is the licensee/applicant."). The NRC Staff appears to treat the "it" in the FOCD provision (in the "if it is owned, controlled, or dominated" phrase) as the license itself. Under this interpretation, in the example above, X would be the direct owner because it possesses the license, and Y and Z would both be indirect owners. While this is a plausible interpretation, the authors believe that the "it" in the provision properly refers to the licensee or applicant. This is justified by the fact that the "controlled" and "dominated" terms apply to companies, rather than a license. *See also infra* § IV.A.2.c (discussing the statutory terms). The NRC Staff should clarify this nuance should they revisit the FOCD provision. Regardless, in practice this is a distinction without a difference. Given the realities of funding nuclear power plants, the licensee/applicant appears always to be a U.S. entity, and if a foreign owner is involved, it tends to be removed multiple levels from the licensee/applicant in the corporate ladder. SECY-14-0089 at 6 (according to the NRC Staff, "[n]o applicant has requested direct foreign ownership of any percentage."); *see also infra* notes 58, 115, 117 (discussing past examples of foreign ownership of nuclear plants, all indirect, even under the authors' definition). To note, control of voting stock seems to be a common measure of ownership used by the NRC, *see for example* SECY-14-0089, encl. 2, but the meaning of "ownership" itself is of course a complex question. *Infra* § IV.

disposition against French-owned EDF's application to construct a 100% indirectly foreign-owned new expansion to the Maryland Calvert Cliffs nuclear facility.⁵⁸ On the other hand, in 2014, a Licensing Board allowed a license application for the South Texas nuclear facility expansion to proceed despite reactor vendor Toshiba's sole financing of the application.⁵⁹ Both decisions were upheld by the Commission.⁶⁰

In the aftermath of recent Licensing Board and Commission decisions on foreign ownership that have highlighted this issue, the Commission decided to take a "fresh assessment" of the current foreign ownership rules (Fresh Assessment).⁶¹ After the Staff,⁶² industry,⁶³ and public expressed their opinions, the Commission recently issued an important, although split, vote on how to proceed. While the Commission's directive makes some updates to the current FOCD regime, it leaves many questions unanswered. This article provides a critical review of the varying interpretations of the AEA's ownership prohibition that have arisen in this changing landscape, and proposes a path forward for defining the foreign ownership prohibition that would provide clarity for the regulated population.

Part II will provide a brief review of the NRC's FOCD rules up to the present, with a comparison to select international regimes. Part III offers a critique and analysis of the Commission's recent, conflicting positions on the FOCD prohibition. Part IV offers suggestions on how the Commission may wish to interpret the FOCD provision to allow for majority or 100% foreign indirect ownership. Part V concludes the article with a view for the future.

II. STATUTORY & HISTORICAL BACKGROUND

A. *Legislative History of the FOCD Provision*

This article begins with a focused discussion on the legislative history of the FOCD provision, which was introduced in the Atomic Energy Act Amendments

58. *Calvert Cliffs 3 Nuclear Project, LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), LBP-12-19, 76 N.R.C. 184, 187 (2012). The applicants were the two companies named in the case caption, but they were wholly owned by Unistar Nuclear Energy LLC, a U.S. company, and Unistar Nuclear Energy LLC was owned 100% by EDF. *Id.* at 187–88. This is an example of indirect ownership. This arrangement was not intended at the time the reactor project was initiated, but was the result of the American entity, Constellation Energy Group, walking away from the effort. *Id.*

59. *Nuclear Innovation N. Am. LLC* (South Texas Project Units 3 & 4), LBP-14-3, 79 N.R.C. 267, 269 (2014). See generally *infra* section IV.A.2.d for a deeper discussion of this proceeding.

60. *Nuclear Innovation N. Am. LLC* (South Texas Project Units 3 & 4), CLI-15-7, 81 N.R.C. 481 (2015); *Calvert Cliffs 3 Nuclear Project, LLC, and UniStar Nuclear Operating Servs., LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-13-4, 77 N.R.C. 101 (2013).

61. Staff Requirements In Re: Calvert Cliffs 3 Nuclear Project, LLC & Unistar Nuclear Operating Services, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), SECY-12-0168 (Nuclear Regulatory Comm'n Mar. 11, 2013) (asking the NRC Staff to "provide a fresh assessment on issues relating to foreign ownership").

62. The NRC Staff's perspective was memorialized in SECY-14-0089.

63. The Nuclear Energy Institute (NEI) offered comments on behalf of the nuclear industry. NUCLEAR ENERGY INST., COMMENTS OF THE NUCLEAR ENERGY INSTITUTE ON REQUIREMENTS RELATED TO FOREIGN OWNERSHIP, CONTROL, OR DOMINATION OF COMMERCIAL NUCLEAR POWER PLANTS 6-7 (Aug. 2, 2013) [hereinafter NEI AUGUST 2013 COMMENTS].

of 1954.⁶⁴ When the original Atomic Energy Act was promulgated, the Atomic Energy Act of 1946, it represented the United States' first true attempt to regulate the use of atomic power, and thus was inherently conservative.⁶⁵ Even at that time, however, the 1946 Act still envisioned the development of the modern nuclear industry.⁶⁶ Given the United States' virtual monopoly on this powerful technology, nonetheless, foreign ownership of devices utilizing nuclear energy only was restricted when it was determined to be "inimical" to U.S. interests.⁶⁷ When discussing the 1946 Act, Congressional representatives emphasized that the then-named Atomic Energy Commission [AEC] should emphasize "national security" and "loyalty" to America when making inimicality determinations.⁶⁸

In 1954, Congress added the foreign ownership, control and domination language to 1946 Act, with little significant, direct explanation of their final reasoning. However, insights into Congressional intent can be derived from a review of discussions occurring throughout the legislative process. Although the Congressional effort to amend the 1946 Act had been building for some time,⁶⁹ influence came from the Executive Branch in the form of President Eisenhower's 1953 "Atoms for Peace" address to the United Nations, in which he called for atomic power to be "adapt[ed] to the arts of peace . . . for the benefit of all mankind."⁷⁰ President Eisenhower followed that historic speech with an address to Congress, in which he made three recommendations for what would become the heart of the Atomic Energy Act of 1954:

64. The NRC Staff provide an excellent review of the provision's legislative history in Enclosure 1 to SECY-14-0089, focusing in particular on the Atomic Energy Act of 1954 (the "1954 Act" or "1954 Amendments"). The authors agree with the NRC Staff that the legislative history of the AEA provision does not provide absolute clarification into the meaning of the individual terms of the FOCD provision. SECY-14-0089, *supra* note 57, at 5. Although we find certain elements of the legislative history still provide some useful insight. Further inquiry into the legislative history of the AEA is always welcome. As stated by Representative Sterling Cole at the opening of hearings on the first proposed bill of the 1954 Act, before even embarking on the effort of writing the 1954 Act, the Joint Committee on Atomic Energy published a 415-page report and then "held 112 public hearings and has published twenty-eight reports mid committee prints." *To Amend the Atomic Energy Act of 1954, Hearing on S. 3323 and H.R. 8862 Before the J. Comm. on Atomic Energy*, 83d Cong. 1-2 (1954) [hereinafter *J. Committee on Atomic Energy Hearing*] (statement of Representative Sterling Cole, Chairman). This was all before President Eisenhower's influential Atoms for Peace speech which is traditionally held as the starting point for the modern nuclear industry.

65. Atomic Energy Act of 1946, ch. 724, § 1(a), 60 Stat. 755, 756 [hereinafter 1946 Act] ("The effect of the use of atomic energy for civilian purposes upon the social, economic, and political structures of today cannot now be determined.").

66. *Id.*

67. *Id.* § 7(c).

68. At a hearing on the issue, the Navy stated that "[i]t is extremely important that the [Atomic Energy Commission (AEC)] have the specific authority within its discretion to refuse to distribute fissionable or other material to residents of the United States of questionable loyalty." Hearing before the H. Comm. on Military Affairs, 79th Cong. 56 (June 12, 1946) (Statement of Hon. W. John Kenney, Assistant Secretary of the Navy). The AEC was the nation's first nuclear regulator, and the precursor to the NRC.

69. *J. Committee on Atomic Energy Hearing*, *supra* note 64.

70. President Dwight D. Eisenhower, Atoms for Peace Speech (Dec. 8, 1953), available at <https://www.iaea.org/about/history/atoms-for-peace-speech>.

- First, widened cooperation with our allies in certain atomic energy matters;
- Second, improved procedures for the control and dissemination of atomic energy information; and,
- Third, encouragement of broadened participation in the development of peacetime uses of atomic energy in the United States.⁷¹

Representative Sterling Cole, Chairman of the Joint Committee on Atomic Energy (Joint Committee) responsible for drafting the new legislation, stated that the three goals in the President's address to Congress "are the basic objectives sought in [H.R. 8862 and S. 3323]," the first drafts of the 1954 Act.⁷² When considering legislative history, it is important to understand this context, as the 1954 Act was a *deregulatory* act, designed to grow industry and grow international cooperation on nuclear development. This is consistently reinforced by a review of the hearing transcripts and committee reports cited below, which emphasize new ways to transfer technology and establish cooperative relationships between countries.

In the midst of this deregulatory effort, Congress considered whether to implement a restriction that no foreign applicant for a license to build or operate a nuclear plant would be permitted to "own" more than five% of the plant. The bill first proposed by the Joint Committee on Atomic Energy in April of 1954 included the following language:

No corporation or association may be a licensee if it is owned or controlled by a foreign corporation or government or if more than 5 per centum of its voting stock is owned or voted by aliens or their representatives or if more than 5 per centum of its members are aliens, or if any officer, director, or trustee is not a citizen of the United States.⁷³

The Joint Committee, in a preliminary outline of the bill, hinted that this provision was in place to "assure the domestic ownership of licensees."⁷⁴ The bill did not clarify whether "owned" was intended to cover only direct ownership, or also situations in which a particular owner of a licensee's stock was a domestic corporation but somewhere up the corporate chain itself foreign-owned (a.k.a. indirect ownership).⁷⁵

In hearings from May 10 through 19 before the Joint Committee, this restriction was uniformly rejected by a panel of experts as overly strict and difficult to track.⁷⁶ The discussion surrounding this proposal repeatedly emphasized that what mattered most to the panel was not hard and fast limits on ownership, but whether a foreign entity could exert "control" or "domination" that

71. *J. Committee on Atomic Energy Hearing, supra* note 64, at 3; Dwight D. Eisenhower, *Special Message to Congress Recommending Amendments to the Atomic Energy Act*, AM. PRESIDENCY PROJECT (Feb. 17, 1954), <http://www.presidency.ucsb.edu/ws/index.php?pid=10163>.

72. *J. Committee on Atomic Energy Hearing, supra* note 64, at 3.

73. H.R. 8862, 83d Cong. § 103d (1954); S. 3323, 83d Cong. § 103d (1954).

74. Joint Comm. on Atomic Energy, Preliminary Section by Section Outline of the Bill to Amend the AEA (Apr. 15, 1954).

75. *Supra* note 57.

76. See generally *J. Committee on Atomic Energy Hearing, supra* note 64, at 64, 92, 227, 328, 415, 464 (1954).

could affect national security.⁷⁷ One group commented that the bright line ownership test proposed by the Joint Committee was contrary to the intent of the proposed bill:

Discrimination against noncitizens and foreign corporations may deter the full development and utilization of atomic energy in this country, since it will discourage foreigners from putting their peaceful discoveries to work in our own country. Moreover, the prohibition does not seem to be in keeping with the spirit of the bill and its proposed international cooperation agreements.⁷⁸

During this May hearing one of the commenters on the FOCD provision noted that ownership restrictions in the Federal Communications Act are differentiated between direct owners of the license (the applicant), and indirect owners of the license (parent corporations).⁷⁹ Another commenter, although not talking about the FOCD provision specifically, brought to the Joint Committee's attention that the Federal Power Act was explicit in setting regulations that were to affect both the direct and indirect owner of a license.⁸⁰

Shortly after the May hearing, on May 21, the Joint Committee inserted a provision similar to the current FOCD restriction, prohibiting *foreign ownership, control, or domination*: “No license may be given to any person for activities which are not under or within the jurisdiction of the United States,” except for the export of production or utilization facilities, under terms of an agreement for cooperation arranged pursuant to section 123. No license may be issued to any corporation or other entity if the Commission knows or has reason to believe it is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government. “In any event, no license may be issued to any person within the United States if, in the opinion of the Commission, the issuance of a license to

77. *Id.* at 64 (supplementary statement for Public Hearings of the Joint Committee on Atomic Energy, E. Blythe Stason, Dean, University of Michigan Law School) (stating it would be “desirable” to give the AEC “discretionary authority to refuse the license if there were any danger of loss of *control* to aliens”); *id.* at 228 (statement of E. H. Dixon, Chairman of the Committee on Atomic Power of the Edison Electric Institute, President, Middle South Utilities, Inc.) (stating “that the proposed section 103 be amended to provide for a test based upon a finding of *domination or control* by aliens”); *id.* at 328 (statement of Francis K. McCune, General Manager, Atomic Products Division, General Electric Co., Accompanied by Stuart MacMackin, Counsel) (“I believe the Commission needs only the authority to refuse licenses where national security is affected.”); *id.* at 464 (statement of William A. Steiger, Chairman, Committee on Patents of the National Association of Manufacturers) (stating that while an ownership test should be a factor, it should not be mandatory, and agreeing “wholeheartedly with the intent of the committee in endeavoring to establish procedures which will insure that recipients of licenses are free of foreign *control or domination*”) (all emphases added).

78. *J. Committee on Atomic Energy Hearing, supra* note 64, at 415 (supplementary statement of Special Committee on Atomic Energy of the Association of the Bar of the City of New York, provided by Chairman Oscar M. Reubhausen).

79. *Id.* at 64 (Mr. Stason) (“The Federal Communications Act uses a 20-percent rule for radio stations, or, in the case of parent corporations, 25 percent.”). Another commenter, William A. Steiger, also stated that the Joint Committee should look to the “Communications Act and obtain the benefit of the Government’s experience in licensing broadcast stations in this country.” *Id.* at 464 (Mr. Steiger). The Federal Communications Act came in discussions before the Joint Committee. *See, e.g., id.* at 117.

80. *Id.* at 527 (statement by Leland Olds, representing the Public Affairs Institute, noting that the Federal Power Act’s nondiscrimination clauses apply to “licensee, or by any subsidiary corporation, the stock of which is owned or controlled directly or indirectly by such licensee”).

such person would be inimical to the common defense and security” or to the health and safety of the public.⁸¹

As noted above, no reasoning was given by the Joint Committee in its revised draft to support this change.⁸² An additional June hearing by the Joint Committee added little, except for the vague comment by the AEC Commissioners that the revised provision was “desirable” and “an adequate safeguard.”⁸³

The Joint Committee also issued reports to the Senate and House of Representatives after the revised draft bill was issued, which did not discuss the FOCD provision.⁸⁴ Moreover, the Committee Reports when summarizing section 103 of the AEA neglected to even mention the presence of an FOCD provision, instead just mentioning that licenses could not be granted where it would be “inimical to the common defense and security or the health and safety of the public.”⁸⁵ If anything, the use of the phrase “[i]n any event” immediately following the FOCD provision indicates that the Joint Committee acknowledged the vagueness of the FOCD provision, and the importance of the inimicality provision to play a threshold-protection role. However, what does come through in the post-May reports and comments by legislators is that the 1954 Amendments to the AEA were designed to widen cooperation with allies on the development of a global nuclear industry, in line with President Eisenhower’s directive.⁸⁶

Subsequent attempts by the NRC from 1999-2001 to amend the FOCD provision in AEA sections 103d and 104d have been rejected. These are discussed in the NRC Staff’s SECY Paper. Under one such proposal, the prohibition of foreign ownership of power and research reactors (utilization facilities) would have been repealed, but the prohibition on foreign ownership of production facilities would have remained, as would the inimicality provision.⁸⁷ Commissioners at the time of this proposal stated that the latter were the only real

81. STAFF OF JOINT COMM. ON ATOMIC ENERGY, 83D CONG., DRAFT IN BILL FORM INCORPORATING CHANGES TO BE MADE IN H.R. 8862 AND COMPANION BILL S. 3323 § 103D (Comm. Print 1954).

82. *Id.*

83. *Hearings before the Joint Committee on Atomic Energy*, 83d Cong. 601 (June 2, 1954) (statement of the AEC, Represented by Lewis L. Strauss, Chairman; Commissioners Henry D. Smyth, Thomas E. Murray, Eugene M. Zuckert, and Joseph Campbell; K.D. Nichols, General Manager; William Mitchell, General Counsel; H.L. Price, Deputy General Counsel; and Edward R. Trapnell). As it was the AEC that made this statement, to the extent this statement was given weight by Congress, it serves that the AEC’s later interpretations of the provision, *infra* § III.B, should be given due weight.

84. J. COMM. ON ATOMIC ENERGY, AMENDING THE ATOMIC ENERGY ACT OF 1946, AS AMENDED, AND FOR OTHER PURPOSES S. REP. NO. 83-1699 ON S.3690 (1954), *reprinted in* 1954 U.S.C.C.A.N. 3456; J. COMM. ON ATOMIC ENERGY, AMENDING THE ATOMIC ENERGY ACT OF 1946, AS AMENDED, AND FOR OTHER PURPOSES, H.R. REP. NO. 83-2181 ON H.R. 9757 (1954) [hereinafter (jointly) COMMITTEE REPORTS]. These reports appear to be nearly identical in content.

85. COMMITTEE REPORTS, *supra* note 84, at 20.

86. *See generally id.* at 5-9; Press Release, Office of the Joint Committee on Atomic Energy, at 1 (June 30, 1954). Representative Cole’s comments emphasize this much as well, but also that the 1954 Amendments did not regulate a nuclear power industry as none existed at the time; instead, they were to promote the development of an industry to later be regulated in more specific detail. Remarks of Representative Sterling Cole before the Leadership Conference of the General Electric Corporation Association Island, New York, at 1-2 (July 30, 1954); Remarks of Representative Sterling Cole at Luncheon Meeting of the International Congress on Nuclear Engineering, sponsored by the American Institute of Chemical Engineers, at the University of Michigan, Ann Arbor, Michigan, at 3-4 (June 24, 1954).

87. SECY-14-0089, encl. 1, *supra* note 57, at 5-6.

threat to non-proliferation and nuclear security.⁸⁸ A Senate bill incorporating the NRC's proposal was introduced, but did not make it out of committee.⁸⁹ However, it is not clear that Congress expressly rejected the bill based on the repeal of the FOCD provision rather than the other provisions which would allow informal licensing hearings in place of adjudicatory proceedings, and provided for greater indemnification of licensees from liability outside of the United States and elimination of automatic Justice Department antitrust reviews of license applications.⁹⁰ It is also very likely that the timing of the bill, introduced around the time of the terrorist attacks of September 11, 2001, affected its priority and reception.

B. Current Application of the FOCD Provision

Under the AEA, concerns about foreign ownership depend on the type of facility at issue and the amount and type of nuclear material that facility could access. This article discusses the FOCD provision as it applies to nuclear power plants. This is not only because, in America, nuclear power plants are the largest component of the nuclear industry, but because, as it stands now, the FOCD provision applies only to nuclear “production”⁹¹ and “utilization” facilities,⁹² which include power plants research and test reactors, and radioisotope production facilities typically licensed under 10 C.F.R. Parts 50 or 52.

In subchapter VI of the AEA, which deals with source materials, there is a limited provision on foreign influence of uranium mines. This subchapter requires only a finding of non-inimicality under 42 U.S.C. § 2099 in order for the uranium mine to receive an NRC operating license.⁹³ The Commission confirmed this limitation recently in *Crow Butte Resources, Inc.* which concerned foreign ownership of a uranium in situ leach facility.⁹⁴ The Commission stated that “there is no statutory or regulatory bar on a foreign ownership or control of a source materials license, whether as a licensee or as a parent entity.”⁹⁵ The Commission noted in dicta that in a rare scenario where the uranium mine wished to sell

88. *Id.*

89. S. 472, 107th Cong. § 604 (2001).

90. 107 Cong. Rec. S11619 (daily ed. Nov. 8, 2001).

91. The term “production facility” refers to “(1) any equipment or device determined by rule of the Commission to be capable of the production of special nuclear material in such quantity as to be of significance to the common defense and security, or in such manner as to affect the health and safety of the public; or (2) any important component part especially designed for such equipment or device as determined by the Commission.” 42 U.S.C. § 2014(v); *see also* 10 C.F.R. § 50.2 (2012) (defining production facilities more specifically). Special nuclear material refers, among other items, to plutonium and enriched uranium. 42 U.S.C. § 2014(aa).

92. The term “utilization facility” refers to “(1) any equipment or device, except an atomic weapon, determined by rule of the Commission to be capable of making use of special nuclear material in such quantity as to be of significance to the common defense and security, or in such manner as to affect the health and safety of the public, or peculiarly adapted for making use of atomic energy in such quantity as to be of significance to the common defense and security, or in such manner as to affect the health and safety of the public; or (2) any important component part especially designed for such equipment or device as determined by the Commission.” 42 U.S.C. § 2014(cc); *see also* 10 C.F.R. § 50.2.

93. 42 U.S.C. § 2099; 10 C.F.R. § 40.32.

94. *Crow Butte Resources, Inc.*, CLI-09-9, 69 N.R.C. 331, 358-62 (2009).

95. *Id.* at 361.

uranium to a foreign government, it would still require a separate application for an export license.⁹⁶

Foreign ownership of enriched materials and enrichment equipment is controlled under a different regime. The Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990 included an amendment to the AEA to remove U.S. uranium enrichment facilities from the AEA definition of “production facility,” thereby exempting such facilities from application of the AEA’s FOCD restriction.⁹⁷ The same act gave the NRC significant discretion in establishing a regulatory regime for enrichment facilities.⁹⁸ Such facilities, often referred to within the ambit of “fuel cycle facilities,” are regulated under various portions of the 42 U.S.C. and 10 C.F.R. While an FOCD restriction does exist under the uranium enrichment regulations, it applies to only one facility, the United States Enrichment Corporation (USEC),⁹⁹ now controlled by Centrus Energy Corporation. Moreover, the United States has permitted foreign entities to operate enrichment facilities on U.S. soil. URENCO, a joint company of Germany, the United Kingdom, and the Netherlands, operates the only enrichment facility that is currently operating in the United States, and Areva, a French company, has received a license to build an enrichment facility in Eagle Rock, Idaho.¹⁰⁰

The NRC is well-experienced generally in dealing with technology transfer between the United States and foreign nations. Title V of the AEA also sets out that:

The Commission is authorized to cooperate with any nation or group of nations by distributing special nuclear material and to distribute such special nuclear material, pursuant to the terms of an agreement for cooperation to which such nation or group of nations is a party and which is made in accordance with section 2153 of this title.¹⁰¹

Section 2153 of 42 U.S.C., commonly referred to as AEA section 123, establishes the conditions for civilian nuclear cooperation between the United States and foreign partners (section 123 agreements). The United States has twenty-one nuclear cooperation agreements in force with eighteen countries, the International Atomic Energy Agency, the European Atomic Energy Community, and Taiwan.¹⁰² The participation of foreign companies in nuclear enrichment and transfer of nuclear materials provide examples where the United States has balanced its national security interests with its interest in global economic cooperation.

96. *Id.* at 361.

97. Solar, Wind, Waste and Geothermal Power Production Incentives Act of 1990, Pub. L. No. 101-575, 104 Stat. 2834, 2835 (excepting from the definition of “production facility” in 42 U.S.C. § 2014 “any equipment or device (or important component part especially designed for such equipment or device) capable of separating the isotopes of uranium or enriching uranium in the isotope 235”).

98. 42 U.S.C. § 2201(b); 104 Stat. 2835.

99. 10 C.F.R. §§ 40.4, 40.38.

100. *Uranium Enrichment, Gas Centrifuge*, NUCLEAR REG. COMM’N, <http://www.nrc.gov/materials/fuel-cycle-fac/ur-enrichment.html> (last updated Oct. 21, 2014); *Company Structure*, URENCO, <http://www.urengo.com/about-us/company-structure/> (last visited Dec. 14, 2015).

101. 42 U.S.C. § 2074.

102. *123 Agreements for Peaceful Cooperation*, NAT’L NUCLEAR SEC. ADMIN., <http://nnsa.energy.gov/aboutus/ourprograms/nonproliferation/treatiesagreements/123agreementsforpeacefulcooperation>. (last visited Dec. 14, 2015).

Turning back to nuclear reactors, although the Commission's complicated history with the FOCD provision is discussed more below, the basic approach taken by the NRC in many FOCD cases is encompassed in the NRC's "Standard Review Plan on Foreign Ownership, Control, or Domination" (SRP).¹⁰³ As Commission-approved guidance, the SRP holds significant weight in NRC proceedings.¹⁰⁴ The SRP lays out a flat bar to 100% foreign ownership, direct or indirect, with a limited exception.¹⁰⁵ Below this specific 100% bar, however, ownership up to that limit is unresolved in the SRP, and theoretically allowable "if certain conditions are imposed."¹⁰⁶ According to the SRP:

If the applicant is seeking to acquire less than a 100% interest, further consideration is required. Further consideration will be given to: (1) the extent of the proposed partial ownership of the reactor; (2) whether the applicant is seeking authority to operate the reactor; (3) whether the applicant has interlocking directors or officers and details concerning the relevant companies; (4) whether the applicant would have any access to restricted data; and (5) details concerning ownership of the foreign parent company.¹⁰⁷

In cases where foreign indirect ownership is high enough to warrant concern, but not high enough to bar a license, the SRP allows for applicants to submit "Negation Action Plans" (NAPs).¹⁰⁸ The types of NAPs that can be used run a wide range, although do not tackle the ownership issue directly, and instead tend to be geared towards ruling out control and domination interests that may stem from foreign ownership.¹⁰⁹

While the SRP in theory allows up to 99% foreign ownership of licensees, direct or indirect,¹¹⁰ in practice the question only arises in cases of *indirect* ownership (where the licensee's parent is wholly a US entity, but that company's parent is foreign).¹¹¹ No applicant for a license has ever been directly owned by a foreign entity in any percentage,¹¹² and direct ownership of a licensee is arguably harder to justify against the AEA FOCD provision.¹¹³ Therefore, indirect

103. Final Standard Review Plan on Foreign Ownership, Control, or Domination, 64 Fed. Reg. 52,355 (Sept. 28, 1999).

104. *Id.* at 52,355; *see also* Entergy Nuclear Operations (Indian Point, Units 2 & 3), CLI-15-6, 81 N.R.C. 340, 358 & n.85 (2015).

105. Final Standard Review Plan on Foreign Ownership, Control, or Domination, 64 Fed. Reg. at 52,358. According to the SRP, 100% *indirect* ownership can be allowed where a foreign parent's stock is "largely" owned by US citizens," and certain conditions are imposed to limit foreign control of facilities and nuclear material. *Id.* This exception appears to have arisen from a single proceeding involving the McDermott research reactor, and appears to reflect the NRC Staff's belief that in such case the applicant actually is not foreign-owned per the AEA, despite a parent being incorporated abroad. *Infra* § III.B; *cf. Calvert Cliffs*, LBP-12-19, 76 N.R.C. at 197 (the NRC Staff stating that 100% foreign ownership would bar a license).

106. Final Standard Review Plan on Foreign Ownership, Control, or Domination, 64 Fed. Reg. at 52,358.

107. *Id.*

108. *Id.* at 52,359. NAPs are applicable not just in cases of foreign ownership, but whenever "an applicant may be considered to be foreign owned, controlled, or dominated." *Id.*

109. *Id.*; *see also* SECY-14-0089, encl. 2, *supra* note 57 (listing characteristics of past NAPs).

110. Final Standard Review Plan on Foreign Ownership, Control, or Domination, 64 Fed. Reg. at 52,356 (acknowledging that an applicant that is directly foreign owned may still seek to acquire less than 100% interest in a reactor, although further consideration is required).

111. *Supra* note 57.

112. SECY-14-0089, *supra* note 57, at 6.

113. *See, e.g., infra* § IV.

ownership has been the route by which foreign entities have entered the U.S. nuclear reactor marketplace.

Even as an option in the SRP, however, almost all foreign indirect ownership of U.S. nuclear reactor licensees has been kept below a majority stake. Moreover, “the Commission has not [ruled on] more than 50 percent indirect ownership of a licensee by a foreign interest.”¹¹⁴ The trend appears to be that, historically, the NRC Staff has not condoned greater than 50% foreign indirect ownership. In almost all circumstances involving nuclear reactors, total foreign ownership appears to have been kept at or under 50%.¹¹⁵ There have been only three exceptions identified by the authors, all involving license transfers or control changes for already-existing reactors: McDermott (which was a research reactor),¹¹⁶ Maine Yankee (which was non-operating),¹¹⁷ and possibly Amergen (which involved only a small step in ownership over 50%).¹¹⁸ The fact that, “the Commission has not yet been asked to rule on a matter involving 50 to 99 percent foreign ownership”¹¹⁹ itself may be because that the Staff has not frequently permitted foreign ownership up to that amount, and only recently has it been worth it to contest that position.¹²⁰ Therefore, the question of whether or not a license applicant or holder can be over 50% *indirectly foreign owned* is very much up for

114. SECY-14-0089, *supra* note 57, at 6, 12.

115. See generally SECY-14-0089, encl. 2, *supra* note 57, at 3–40 (listing all examples of foreign ownership of U.S. nuclear utilization facilities). Licensees with close to 50% foreign ownership of a utilization facility have included: General Atomic Company (holder of license; itself 50% foreign indirectly owned). *Id.* at 6–7, 23. Amergen (holder of license; itself 50–53.5% foreign indirectly owned, depending on accounting). *Id.* at 11, 26. GE-Hitachi (holder of licenses; itself 40% foreign indirectly owned). *Id.* at 14, 28. Constellation Energy Nuclear Group (100 holder of licenses; itself 49.99% foreign indirectly owned). *Id.* at 15–16, 29–30. For an additional discussion of foreign ownership of U.S. nuclear facilities, please see also Martin G. Malsh, *The Purchase of U.S. Nuclear Plants by Foreign Entities*, 20 ENERGY L.J. 263, 267–70, 275–76 (1999).

116. *Infra* § III.B.

117. A merger proposed in 2010 risked leaving Maine Yankee potentially with 74% foreign indirect ownership. SECY-14-0089, encl. 2, *supra* note 57, at 18 (citing Notice of Violation, Maine Yankee Atomic Power Co., Maine Yankee Atomic Power Station (Jan. 27, 2012) (ADAMS Accession No. ML120300360)). Notably, Maine Yankee only had an Independent Spent Fuel Storage Facility (ISFSI) on site, and only triggered the FOCD provision because it held a possession-only license under Part 50. 10 C.F.R. § 50.38 (applying the FOCD provision to Part 50 licenses, which cover production and utilization facilities). Eventually, the Staff determined that ISFSIs were not covered under the FOCD provision in the AEA since ISFSIs were not utilization facilities, and so exempted Maine Yankee from the section 50.38 FOCD rule. SECY-14-0089, encl. 2, *supra* note 57, at 18 n.134 (citing Letter from Mark D. Lombard, Director, Office of Nuclear Materials Safety and Safeguards, NRC, to Wayne Norton (July 15, 2013) (ADAMS Accession No. ML13086A010) (on Request for Exemption from 10 C.F.R. § 50.38 Requirements)). Before the exemption was granted in July of 2013, however, the Staff for about one year allowed 74% foreign indirect ownership of the Maine Yankee operating license, consistent with certain license conditions. SECY-14-0089, encl. 2, *supra* note 57, at 18; Confirmatory Order Modifying License, *Maine Yankee Atomic Power Co.* (Maine Yankee Atomic Power Station), Docket Nos. 50-309, 72-30 (N.R.C. June 4, 2012) (ADAMS Accession No. ML12124A373).

118. SECY-14-0089, encl. 2, *supra* note 57, at 11 (Amergen was 50% owned by a U.S. company and 50% owned a U.S. subsidiary of a foreign company. The U.S. company was itself 7% directly owned by a foreign company.).

119. SECY-14-0089, *supra* note 57, at 12.

120. At the NRC, most agency licensing actions are handled directly by the Staff. The Commission and generally only is involved in individual licensing actions and sets policy once a hearing is requested, 42 U.S.C. § 2239(a)(1)(A), which can occur if the license application is disputed by an intervenor, or the applicant and NRC Staff cannot resolve their differences.

debate. And, as seen from section I, the answer to this question has the potential to shape the future of the U.S. nuclear industry.

C. Foreign Ownership in Other Countries

The U.S. approach is different than that in other countries, which themselves have varied approaches. Looking north, Canada has a more restrictive foreign investment policy. There is a 49% cap on foreign ownership of its uranium mines, unless certain stringent requirements are met.¹²¹ Whether any foreigners can participate in the nuclear sector is up for debate, because Canada places severe restrictions on those items which are considered a “strategic asset,” of which nuclear plants may or may not be a part.¹²² In France, EDF has legislated monopoly control of the nuclear sector and thus no foreign competitors are allowed.¹²³ Only a small portion of EDF’s stock is floated on the public markets for investment.¹²⁴ India simply prohibits foreign investment in the nuclear sector,¹²⁵ although that is currently up for debate in the country.¹²⁶ Suppliers to nuclear power plants can be 100% foreign owned, however.

On the other end of the spectrum, China allows foreign ownership of nuclear power plants, up to a minority stake in the company.¹²⁷ This is not surprising given China’s well-known desire to grow its domestic nuclear sector.¹²⁸ South Africa, also, has sought out foreign investment in its two existing nuclear plants and all of its uranium mines are foreign-owned.¹²⁹ However, probably the most notable and radical foreign ownership policy is that of the UK, which in October 2013 expanded its policy to allow 100% foreign ownership of nuclear projects by foreign-owned companies.¹³⁰ Since this time, China has emerged as the primary investor in new nuclear projects in Britain.¹³¹ Despite concerns as to whether China’s nuclear plants adhere to the highest safety standards, trade unions have generally been supportive of the development.¹³² Given continued international

121. *Non-Resident Ownership Policy in the Uranium Mining Sector*, NAT. RESOURCES CANADA, <http://www.nrcan.gc.ca/energy/uranium-nuclear/7697> (last updated May 16, 2013).

122. *Canada’s Nuclear Energy Sector: Where to From Here?*, CANADA’S PUB. POL’Y F., at 11 (Jan. 07, 2014), available at http://www.ppforum.ca/sites/default/files/Nuclear_Final_report_Jan_07_2014.pdf.

123. *France: Foreign Investment*, SANTANDERTRADE.COM (Nov. 2015), <https://en.santandertrade.com/establish-overseas/france/foreign-investment>.

124. *Shareholding Structure*, EDF, <https://www.edf.fr/en/the-edf-group/dedicated-sections/finance/financial-information/the-edf-share/shareholding-structure> (last updated Dec. 31, 2014).

125. *Power Sector*, INVEST INDIA, <http://www.investindia.gov.in/power-sector/> (last visited Feb. 6, 2016).

126. *No Decision on FDI in Nuclear Power Sector: Government*, LIVE MINT (July 9, 2014, 10:02 PM), <http://www.livemint.com/Politics/jYUo7xy2Ivw529GmkHNxHI/No-decision-on-FDI-in-nuclear-power-sector-government.html>.

127. *Nuclear*, EXPORT.GOV, <http://apps.export.gov/article?id=China-Nuclear> (last updated Feb. 23, 2016).

128. *Supra* § I.A.

129. *Nuclear Power in South Africa*, WORLD NUCLEAR NEWS (Nov. 2015), <http://www.world-nuclear.org/info/country-profiles/countries-o-s/south-africa/>.

130. Angela Monaghan, *China Will be Allowed to Buy UK Nuclear Power Stations, George Osborne Says*, GUARDIAN (Oct. 17, 2013, 4:50 PM), <http://www.theguardian.com/business/2013/oct/17/china-buy-uk-nuclear-power-stations-george-osborne>.

131. *Supra* note 48.

132. *China Begins Nationwide Nuclear Safety Checks After Tianjin Blast*, REUTERS (Sept. 15, 2015, 3:26 AM), <http://uk.reuters.com/article/2015/09/15/china-nuclear-safety-idUKL4N11L1DJ20150915>.

growth in this sector, however, and the fact that the United States has more nuclear plants than any other country, the international community may look at what the United States is doing when determining if and how to liberalize their investment regimes in nuclear power.

D. Recent Events Leading to Renewed Commission Interest in FOCD Restrictions

While there were several early Commission decisions concerning the meaning of the AEA FOCD provision, this issue remained largely dormant until the 21st century, presumably because the United States was the preeminent developer of nuclear technology. As a result, no foreign company has ever attempted to directly own a portion of a U.S. nuclear power plant, and only in a few cases have foreign companies attempted to acquire a greater-than-50% indirect stake in a nuclear power reactor.¹³³ Thus, until recently, the Commission had not had significant opportunity to speak on the issue.¹³⁴

As mentioned in Part I, foreign interest in the U.S. nuclear power plant market came to a head with the AEA's FOCD provision in the 2007 application to build a third reactor at the Calvert Cliffs facility, which would be directly owned by a U.S. entity but indirectly fully owned by EDF.¹³⁵ In its 2012 decision, the Licensing Board determined that "at a minimum," the AEA prohibits 100% foreign ownership, and that bars EDF's full indirect ownership of the Calvert Cliffs reactor.¹³⁶ The Commission denied review of the decision, but commented that a fresh assessment of its rules was necessary, in particular, focusing on foreign ownership: "[W]ith the passage of time since the agency first issued substantive guidance on the foreign ownership provision of AEA section 103(d), a reassessment is appropriate."¹³⁷

In response, the NRC Staff submitted a SECY Paper to the Commission with six options, ranging *inter alia* from increasing guidance to applicants (Option 3), reinterpreting the AEA to permit 100% foreign indirect ownership (Option 5), to the other extreme of doing nothing at all (Option 1).¹³⁸ The Staff advocated for a middle ground approach, Option 3, which called for revising the agency's FOCD Standard Review Plan (SRP), as well as developing a FOCD regulatory guide with a graded approach towards control and domination concerns.¹³⁹ The Staff viewed

133. *Infra* § III.B; see also SECY-14-0089, *supra* note 57, at 6, 12.

134. *Supra* § I.A.

135. *Calvert Cliffs*, LBP-12-19, 76 N.R.C. at 187–88.

136. *Id.* at 196–97.

137. *Calvert Cliffs*, CLI-13-4, 77 N.R.C. at 105.

138. SECY-14-0089, *supra* note 57, at 2. The NRC's technical and legal suggested the following six options: (1) maintain the status quo; (2) propose a legislative amendment to the AEA; (3) revise the guidance in the staff's FOCD Standard Review Plan (SRP) and develop an associated FOCD regulatory guide to provide a graded approach as to control and domination concerns; (4) establish a two-part licensing process, which would address safety and environmental issues first, and FOCD issues second; (5) redefine the statutory term "owned" to mean direct ownership only; and/or, (6) establish safe harbors at set specific thresholds for acceptable levels of FOCD based on a percentage of direct or foreign indirect ownership. There were non-concurrences by certain members of the NRC Staff to the SECY Paper, *id.* at 20–21, but as they were not included in the SECY Paper or public record they are not discussed herein.

139. *Id.* at 2.

this option as maintaining a flexible approach which sets no specific maximum on foreign ownership (except prohibiting 100% foreign ownership), while providing greater clarity to applicants regarding FOCD issues, especially when applicants seek over 50% foreign indirect ownership of a nuclear reactor.¹⁴⁰

The Nuclear Energy Institute (NEI), which represents the nuclear industry, also submitted lengthy comments advocating for Option 5, reinterpreting the AEA to permit 100% foreign indirect ownership.¹⁴¹ NEI advocated for the FOCD provision to be read as an “integrated whole,” with a focus on protecting national defense and security.¹⁴² It proffered that as an integrated whole, the “control” prong is most relevant, and the agency should “consider ownership as only one of the potential indicia of control.”¹⁴³ NEI judged that reading the FOCD provision to only prohibit *direct* ownership is more accurate and more in line with Commission practice.¹⁴⁴ The NRC Staff, however, opposed this approach believing it to be contrary to the NRC’s long-standing position.¹⁴⁵ They maintained their position expressed in *Calvert Cliffs*, that the use of “or” in the FOCD provision means that the three terms must be interpreted individually, and none rendered superfluous or subsumed by another.¹⁴⁶ While the NRC Staff felt that limiting the “owned” term to just direct foreign ownership was possible, they felt this was against Congressional intent and afforded limited given that 99% indirect ownership is already permissible under the SRP.¹⁴⁷

On May 4, 2015, the Commission issued its voting record on the Staff’s Fresh Assessment (CVR),¹⁴⁸ as well as a memorandum to the Staff on next steps (Staff Requirements Memorandum).¹⁴⁹ In NRC practice, the Commission issues separate voting records on major issues. This allows the public to better understand the rationales each Commissioner took in regards to a given policy decision. The Commission also communicates its final determinations to the NRC Staff not through its CVR, but through the Staff Requirements Memorandum. While the CVRs offer crucial insight into the thoughts of the Commission, the NRC Staff are only required to follow what is in the Staff Requirements Memorandum.¹⁵⁰ At the time of the vote, and currently, the Commission has only

140. *Id.* at 17–18.

141. NEI AUGUST 2013 COMMENTS, *supra* note 63, at 1, 6–7.

142. *Id.* at 2, 6.

143. *Id.* at 7.

144. *Id.* at 11–14.

145. SECY-14-0089, *supra* note 57, at 12.

146. *Id.* at 11.

147. *Id.* at 11–12.

148. Commission Voting Record, Decision Item SECY-140089, Fresh Assessment of Foreign Ownership, Control, or Domination of Utilization Facilities (N.R.C. May 4, 2015) (ADAMS Accession No. ML15124A944) [hereinafter CVR]. A commission voting record provides the Commissioners’ votes on a Staff SECY Paper, as well as the individual reasons for the Commissioners gave for their votes.

149. Memorandum to Mark A. Satorius, Executive Director for Operations, from Annette L. Vietti-Cook, Secretary of the Commission, on Staff Requirements for SECY-140089, Fresh Assessment of Foreign Ownership, Control, or Domination of Utilization Facilities (May 4, 2015) (ADAMS Accession No. ML15124A940) [hereinafter Staff Requirements Memorandum].

150. *Commission Direction-Setting and Policymaking Activities*, NUCLEAR REG. COMM’N, <http://www.nrc.gov/about-nrc/policymaking.html> (last updated June 23, 2015); NUCLEAR REG. COMM’N,

four members of five possible. Any action that is unable to gain a majority, or is split, is not approved and the status quo prevails.¹⁵¹

The Staff Requirements Memorandum endorsed the Staff's middle ground approach, and unanimously approved going forward with Option 3.¹⁵² Specifically, the Commission instructed the Staff to both revise its SRP and create a regulatory guide to "mitigate the potential for *control* or *domination*" of a utilization facility by a foreign entity.¹⁵³ The Commission reemphasized the need for the Staff to pursue a site-specific, case-by-case approach that relies on the totality of the facts.¹⁵⁴ However, the Staff Requirements Memorandum lacked any instruction as to how to treat foreign *ownership* of nuclear facilities. While the lack of any directive in the Staff Requirements Memorandum left the status quo in place as to ownership (as advocated by the Staff), the absence of substantial discussion of foreign ownership in the memorandum was not an oversight. Instead, it belies that the Commission had multiple, conflicting opinions on this topic, and that this issue is far from settled.

A thorough understanding of the CVR is relevant for a critique of the NRC's current FOCD policy, and for suggesting future changes. The Commission's positions as represented in the CVR can be placed into three groups. Two of the four Commissioners, Commissioners Ostendorff and Svinicki, approved of Option 5 from the SECY paper, to reinterpret the FOCD provision as only prohibiting foreign *direct* ownership, not indirect ownership. Commissioner Ostendorff offered a few pages of discussion.¹⁵⁵ He viewed the term "owned" as ambiguous in the statute, and noted that the United States Supreme Court (Supreme Court) has at least once endorsed interpreting the word "owned" in a statute to refer to only direct ownership.¹⁵⁶ He disagreed with the Staff's position that the agency has consistently interpreted "owned" to prohibit both indirect and direct ownership, and asserted that past agency practice was in fact the opposite.¹⁵⁷ Instead, he stated that "under the current NRC interpretation of the FOCD provision, the only bar on indirect ownership is 100%; the Commission currently has the discretion to approve licenses up to 99% indirect foreign ownership."¹⁵⁸ Commissioner Ostendorff appears to have based this statement on a reading of the SRP, a Commission-approved NRC Staff guidance document on FOCD reviews, which states that while 100% foreign ownership is not allowed, for anything less "further consideration is required."¹⁵⁹ Commissioner Ostendorff also disagreed with the Staff that the failure of past legislative proposals to remove

INTERNAL COMMISSION PROCEDURES II-9 (2015 ed.), available at <http://www.nrc.gov/about-nrc/policy-making/internal.html> [hereinafter INTERNAL COMMISSION PROCEDURES].

151. INTERNAL COMMISSION PROCEDURES, *supra* note 150, at III-9.

152. Staff Requirements Memorandum, *supra* note 149.

153. *Id.* (emphases added).

154. *Id.*

155. CVR, *supra* note 148, at 10–11.

156. *Id.* at 10 (citing *Dole Food Co. v. Patrickson*, 538 U.S. 468 (2003)).

157. CVR, *supra* note 148, at 10–11.

158. *Id.* at 11.

159. Final Standard Review Plan on Foreign Ownership, Control, or Domination, 64 Fed. Reg. 52,355, 52,358 (Sept. 28, 1999).

the FOCD provision were indicative of Congressional intent.¹⁶⁰ According to him, as those efforts sought to remove the FOCD provision entirely, Congress in rejecting them did not speak to the definition of ownership within the FOCD provision.¹⁶¹ Commissioner Svinicki supported Ostendorff's arguments, viewing the change from allowing potentially 99% foreign indirect ownership to 100% as meaningless: "[I]f concerns associated with 99.9 percent indirect foreign ownership can be 'mitigated away' through a NAP, then similar concerns associated with 100 percent indirect ownership legitimately can, too."¹⁶²

Commissioner Baran took the opposite view. He not only concluded that 100% foreign indirect ownership is impermissible, but rejected the position that 99% foreign ownership is otherwise allowable. He concluded instead that "majority foreign indirect ownership of reactor licensees also is prohibited by the Atomic Energy Act."¹⁶³ He reasoned that "[t]he Commission has not explicitly addressed whether majority indirect ownership of less than 100 percent of a reactor licensee is permissible and has never approved an application proposing indirect foreign ownership of more than 50 percent."¹⁶⁴ He agreed with the NRC Staff's reading that the three terms of the FOCD provision are "separate and distinct restrictions," such that abatement of control and domination cannot make up for majority foreign indirect ownership.¹⁶⁵ He further believed that the failures of past legislative proposals indicated Congressional intent to keep a strict reading of the FOCD provision in place.¹⁶⁶

Chairman Burns chose a middle ground, agreeing with Commissioners Ostendorff and Svinicki that the "current policy" allows "99 percent indirect foreign ownership" and is defensible under the AEA.¹⁶⁷ However, he countered that allowing just one percent more, up to 100%, "represents a major change in the agency's interpretation of the Atomic Energy Act" and the NRC's regulations.¹⁶⁸ In doing so, he appeared to agree with Commissioner Baran that it would be, at the least, "controversial" to allow 100% foreign indirect ownership, if not impermissible under the AEA.¹⁶⁹ Ultimately, despite being "empathetic" to the option, the Chairman decided it was not worth the effort it would take to allow 100% foreign indirect ownership, as it would result in a "nebulous" and insignificant gain "as a practical matter."¹⁷⁰ Notably, however, Chairman Burns did not repeat the statement made by Commissioner Baran that the FOCD provision consists of three separate tests, and appears instead to share a view of

160. CVR, *supra* note 148, at 10–11.

161. *Id.* at 11. Those failures, Commissioner Ostendorff reasoned, did not prevent the NRC from reinterpreting the term in a legally supported manner now. *Id.*

162. *Id.* at 7 (citation to internal quotation not provided).

163. CVR, *supra* note 148, at 17 (emphasis added).

164. *Id.* at 16–17.

165. *Id.* at 15 ("For decades, NRC has interpreted the phrase 'owned, controlled, or dominated' as establishing three separate and distinct restrictions; meaning an applicant cannot be foreign owned, foreign controlled, or foreign dominated.").

166. *Id.* at 16.

167. *Id.* at 4.

168. CVR, *supra* note 148, at 4.

169. *Id.* at 4.

170. *Id.*

the FOCD provision more in line with Commissioners Ostendorff and Svinicki, that looks to the entire FOCD provision as a whole, focusing on national defense and security.¹⁷¹

III. A CRITICAL LOOK AT THE CURRENT INTERPRETATION OF THE AEA FOCD PROVISION

Parts I and II of this article have explained the increasing role of foreign players in the U.S. nuclear industry, and the Commission's initial response. In this part, the authors critique and analyze the Commission's response and identify areas for the NRC Staff, Commission, industry, or public to explore as they move forward.

The Commission's instructions to the Staff certainly will provide additional clarification as to the "control" and "domination" prongs of the FOCD rule.¹⁷² However, we must return to the context in which the Commission's decision will be applied. In *Calvert Cliffs*, the Licensing Board confronted solely the matter of foreign indirect ownership.¹⁷³ The Commission, in affirming the Licensing Board, stated that the Fresh Assessment was to specifically address foreign ownership.¹⁷⁴ As the Staff and Commissioner Baran both noted, the Commission itself has never confronted, much less approved, majority foreign indirect ownership of a nuclear power reactor.¹⁷⁵

Unfortunately, this Fresh Assessment has not provided the industry and the public clear guidance as to the permissibility of majority foreign indirect ownership of our nation's nuclear plants. This is despite the Commissioners' efforts to come to an agreement—Commissioner Svinicki stated, as to the issue of foreign ownership, no position garnered "majority support."¹⁷⁶ The Commission's split decision nearly guarantees that this question will again come before them, and from there review may be sought in a Federal appellate court. The NRC's approach to the FOCD provision leaves open the possibility that an appellate court will overturn the entire scheme on judicial review, in part due to the two concerns raised in sections A and B below. The Commission should act again before this happens.

171. *Id.* at 5, 12.

172. Staff Requirements Memorandum, *supra* note 149 (requiring updates to the SRP and additional guidance so as to "mitigate the potential for control or domination of licensee decision-making by a foreign entity").

173. *Calvert Cliffs*, LBP-12-9, 76 N.R.C. at 187.

174. *Calvert Cliffs*, CLI-13-4, 77 N.R.C. at 105.

175. SECY-14-0089, *supra* note 57, at 6; CVR, *supra* note 148, at 16. In the case of test reactors, another type of utilization facility but which is not a power reactor, there has been a case in which the Commission approved 100% foreign indirect ownership of the reactor. *Infra* § III.C; see also SECY-14-0089, *supra* note 57, at 6 n.6 & encl. 2, at 7–8. Moreover, although the Commission has not itself ruled on the question of foreign majority indirect ownership for a specific applicant, the Staff has confronted this issue before. See, e.g., *supra* notes 115, 117.

176. CVR, *supra* note 148, at 7.

A. Reliance on a Faulty Line-in-the-Sand Divide Between 99% and 100% Indirect Ownership

As noted above, the SRP does not explicitly disallow 99% or less foreign indirect ownership, and only states that “further consideration is required.”¹⁷⁷ This is a quiet admission that the issue is still unsettled. However, as evident in the recent CVR, an admission of uncertainty has been transformed into an assumption upon which the agency’s current FOCD scheme is based. For example, in his CVR, Commissioner Ostendorff stated that “the Commission currently has the discretion to approve licenses up to 99% percent indirect foreign ownership.”¹⁷⁸ Commissioner Svinicki joined in his comments, and stated as if it was given that up to 99.9% foreign ownership can be mitigated under the SRP.¹⁷⁹ Chairman Burns also agreed outright that “our current policy . . . potentially allow[s] 99 percent indirect foreign ownership.”¹⁸⁰ The NRC Staff stated in the SECY Paper that “at the present time, there is no bar to the approval of 99 percent foreign ownership.” But in the end, since no agreement was reached, the Commission’s final position is that 100% foreign indirect ownership is still banned, as per the Commission-approved SRP.¹⁸¹

The result is that the Commission has now, even if informally, endorsed a legal interpretation of the AEA and SRP that interprets the FOCD provision as banning 100% indirect ownership but allowing 99% foreign ownership in certain circumstances. It is certainly well within an agency’s purview to interpret its organic statute under *Chevron*. But as the United States Supreme Court has stated, deference to an agency’s interpretation of a statute, even under *Chevron*, is not absolute: “agencies must operate within the bounds of reasonable interpretation.”¹⁸² The agency’s decision-making process must rest on a “logical and rational” process, and “on a consideration of the relevant factors.”¹⁸³ An illogical outcome arises because those same Commissioners *then* conclude that there is no practical difference between 99% and 100% foreign indirect ownership.¹⁸⁴ Chairman’s Burn’s statements best express the contradiction, as he refers to the benefits of permitting 100% foreign indirect ownership as “nebulous” and “no change as a practical matter,”¹⁸⁵ while positing that the same would result

177. Final Standard Review Plan on Foreign Ownership, Control, or Domination, 64 Fed. Reg. 52,355, 52,358 (Sept. 28, 1999).

178. CVR, *supra* note 148, at 11.

179. *Id.* at 7.

180. *Id.* at 4.

181. The one exception is where the stock ownership of the foreign parent is held “largely” by U.S. citizens, because, in this situation there really is no foreign parent. *Supra* note 105. This very limited exception does not break open the gates to 100% foreign indirect ownership, and is in fact based on a very specific circumstance. *Infra* note 206 (and accompanying text).

182. *Michigan v. EPA*, 135 S. Ct. 2699, 2707 (2015) (quoting *Util. Air Regulatory Grp. v. EPA*, 134 S. Ct. 2427, 2442 (2014)).

183. *Id.* at 2706 (quoting *Motor Vehicle Mfrs. Assn. of U.S., Inc. v. State Farm Mut. Automobile Ins. Co.*, 463 U.S. 29, 43 (1983)) (internal quotation marks omitted).

184. CVR, *supra* note 148, at 4, 7, 11. For example, Commissioner Ostendorff states that moving the flag from 99% to 100% “would only afford the Commission a small amount of additional discretion.” *Id.* at 11.

185. *Id.* at 4 (quoting SECY-14-0089, *supra* note 57, at 12) (internal quotation marks omitted in second quote).

in a “major change in the agency’s interpretation of the Atomic Energy Act.”¹⁸⁶ It appears by definition illogical that a regulatory formula would set 1 not equal to 1, yet this approach does just that: it admits 99% and 100% foreign indirect ownership are practically the same thing, but treats them differently. To the extent that the agency promulgates guidance in the future that memorializes this view (the Staff Requirements Memorandum tasks the Staff with creating new guidance), this informal distinction becomes more and more a legally binding one.

One could argue that this apparent divide is overblown, because the Commission has not officially established any specific foreign indirect ownership threshold in a particular proceeding (99% or otherwise), and so it has instead eschewed a line-in-the-sand approach in favor of a case-by-case one.¹⁸⁷ But in reality there is a divide and a line in the sand. Today, if an applicant comes to the NRC with 99% foreign ownership, she gets to have the NRC Staff review her application on a case-by-case basis. The applicant will be given the right to argue before the NRC Staff, before a Licensing Board, and eventually before the Commission that the requirements of the FOCD provision are met, looking at the overall application including *control and domination factors*, wide-ranging NAP options, and anything else the SRP envisions. Yet if an applicant comes to the Commission with 100% foreign indirect ownership, she would be denied a license outright on *ownership* considerations alone. The result is a marked difference in rights available to the two applicants who, as noted by Chairman Burns, are practically the same entities.¹⁸⁸ Even given the significance deference due the agency under *Chevron*, this reading of the FOCD provision, which accords different treatment to similarly situated entities, appears potentially arbitrary.¹⁸⁹

Another possible counterargument is that there *is* a difference between 99% and 100% foreign indirect ownership, and thus a divide in the regulatory approach is justified. The agency did not put forward this argument or any evidence in support of it during the Fresh Assessment, and the individual Commissioner CVR statements seem to disregard this as a possibility. But even if adopted, it still does not defend the line-in-the-sand percentage based approach currently in place. If there were a difference between two ownership arrangement 1% apart in ownership, rendering one allowable under the AEA and one not allowable, the key differences would certainly be transaction-specific (such as the use of nonvoting stock, or unique non-equity financing arrangements).¹⁹⁰ To draw a distinction based on the details of the transaction is to admit that the agency has to first look at the details of the transaction. Therefore, a blanket ban at the 100% foreign

186. *Id.*

187. This is in similar to what the NRC Staff argued in favor of Option 3 from the SECY paper. SECY-14-0089, *supra* note 57, at 17.

188. CVR, *supra* note 148, at 4, 7, 11. The NRC Staff could base this denial on the guidance in the SRP, 64 Fed. Reg. at 52,358, or based on the Commission’s guidance in the CVR.

189. “Government is at its most arbitrary when it treats similarly situated people differently.” *Etelson v. Office of Pers. Mgmt.*, 684 F.2d 918, 926 (D.C. Cir. 1982). Courts will strike down agency actions that treat two practically identical entities differently. *See, e.g., Prometheus Radio Project v. F.C.C.*, 373 F.3d 372, 407 (3d Cir. 2004) (rejecting an attempt to treat cable and internet media outlet differently because the distinction was made on false and irrelevant factors), *cert. denied*, 373 F.3d 372 (2005); *Melody Music, Inc. v. F.C.C.*, 345 F.2d 730, 732 (D.C. Cir. 1965) (rejecting an agency’s attempt to treat two companies differently when their applications looked similar and no explanation was given for the disparate treatment).

190. *Infra* note 289.

indirect ownership level still would be inappropriate. The Commission has not yet put forward any “relevant factors”¹⁹¹ that support differentiated treatment for applicants with 100% foreign indirect ownership, while allowing case-by-case determinations for applicants with 99% foreign indirect ownership or less.

Even if the Commission was to change its position slightly and step back from allowing 99% foreign indirect ownership, in theory because it is too close in practice to 100%, the question then arises—what percentage is acceptable? By reserving an opportunity to draw a line in the sand in the future somewhere between 50% and 99%, the NRC is in essence taking the position that Congress intended for the FOCD provision to have that line there in the first place, permitting a license on one side of the line but not the other, yet without explaining practically what is different on either side. The upshot is that the entire line-in-the-sand approach risks being seen by a reviewing court as potentially unsupported and arbitrary.

Once the layers are peeled away, the result is that there is nothing currently in the official agency record that independently defends a percentage-based line-in-the-sand interpretation of the AEA’s FOCD provision other than the SRP.¹⁹² But the SRP itself is non-binding guidance, created by the Commission, and it appears more shaped by past circumstances than an independent statutory analysis of the AEA.¹⁹³ Also, even if the SRP is an explicit Commission statement in favor of allowing 99% foreign indirect ownership, it is partly contradicted by Commissioner Baran’s opposing position, and past agency practice traditionally limiting ownership for foreign entities below 50%.¹⁹⁴

This is not to say that 99% or 100% foreign indirect ownership is not possible under the AEA. To the contrary, the authors, *infra*, argue that 100% foreign indirect ownership is possible. However, in order for an agency’s construction of a statute to be permissible under *Chevron*, or otherwise not arbitrary and capricious, there must be evidence of “reasoned decision-making” that provides an adequate record for review and explains the relevant factors that support the line in the sand that is being drawn.¹⁹⁵ While this was not a final ruling, the Commission in future adjudications or rulemakings must not fall back on the assumption that 99% foreign indirect ownership is already allowable because it is inferred in the SRP. The Commission must also provide a statutory defense for that specific position. A starting point is the NRC Staff’s and Commissioner Ostendorff’s analyses: looking at the AEA, case law on statutory interpretation, legislative history, and moving on from there. In performing this foundational

191. *Michigan*, 135 S. Ct. at 2706 (quoting *State Farm*, 463 U.S. at 43) (internal quotation marks omitted).

192. CVR, *supra* note 148, at 9 nn. 1, 10, 11.

193. In particular, it appears to be based on the McDermott circumstance discussed below. *Infra* § III.B.

194. *Supra* § II.B.

195. Step two of the *Chevron* test tends to align with the test to determine if agency’s position is “arbitrary and capricious.” *Agape Church, Inc. v. FCC*, 738 F.3d 397, 410 (D.C. Cir. 2013) (quoting *Judulang v. Holder*, 132 S. Ct. 476, 483 n.7 (2011)). “The analysis of disputed agency action under *Chevron* Step Two and arbitrary and capricious review is often ‘the same, because under *Chevron* step two, [the court asks] whether an agency interpretation is arbitrary or capricious in substance.’”; *see also Mayo Found. for Medical Educ. and Research v. United States*, 562 U.S. 44, 53 (2011). The arbitrary and capricious test contains as a core part a requirement for “reasoned decision-making.” RICHARD J. PIERCE, JR., *ADMINISTRATIVE LAW TREATISE* 1022 (5th ed. 2010); *State Farm*, 463 U.S. at 52.

analysis, it will become apparent that it will be difficult to demonstrate Congress intended to create a line between 50% and 99% of permissible foreign indirect ownership—in fact it specifically eschewed such line-drawing.¹⁹⁶ Instead, if the Commission wants to posit that 99% foreign indirect ownership is potentially allowable under the AEA, it will have to flip its current analysis—99% foreign indirect ownership is potentially allowable *because* 100% is potentially allowable.

B. Lack of Clarity on the Relationship Between Ownership, Control, and Domination

The NRC Staff takes the position on the “plain meaning” of the FOCD Provision that the “owned” term is to be read as a separate prohibition from control and domination, given the use of “or” in the phrase “owned, controlled, *or* dominated.”¹⁹⁷ While neither Commissioners Burns, Ostendorff, nor Sviniki repeated this statement, Commissioner Baran agreed with the Staff,¹⁹⁸ and the Commission together has not rejected this interpretation. Moreover, the Commission affirmed the Licensing Board in Calvert Cliffs,¹⁹⁹ and that board adopted the NRC Staff’s reading of the AEA. If the Commission’s current approach on the FOCD provision is challenged in federal court, the Commission may have to defend this interpretation. It will have trouble doing so, for at least two reasons. First, neither the Staff nor the Commission has ever set forth a test for satisfying the AEA’s ownership prong that is independent of the other two factors; instead, ownership and control have been linked together in past practice. Second, arguing that “owned, controlled, or dominated” are three separate provisions implies that *control* and *domination* are to be examined separately, which has never been done.

The first issue is evident in the case of the McDermott research reactor, which was licensed to Babcock and Wilcox, a company owned by McDermott Incorporated, a U.S. corporation (McDermott US).²⁰⁰ In 1982, McDermott US, Backcok & Wilcox’s sole parent, requested for approval of a corporate reorganization that would have resulted in McDermott US becoming a fully-owned subsidiary of McDermott International, from Panama.²⁰¹ The NRC Staff determined that the transfer was permissible and the Commission granted its approval.²⁰² This transfer of a utilization facility license to a subsidiary of a Panamanian company would be on its face a violation of the Staff and Commissioners Baran’s interpretation of the ownership tenet of the FOCD provision, as the license was transferred to a 100% indirectly Panamanian-owned company.

196. *Supra* notes 76–80.

197. SECY-14-0089, *supra* note 57, at 10; 42 U.S.C. § 2133(d) (emphasis added).

198. CVR, *supra* note 148, at 15.

199. *Calvert Cliffs*, CLI-13-4, 77 N.R.C. at 105.

200. SECY-14-0089, encl. 2, *supra* note 57, at 7 (citing WILLIAM J. DIRKS, NUCLEAR REGULATORY COMM’N, NOTATION VOTE TO OBTAIN COMMISSION APPROVAL OF CONTINUED HOLDING OF FACILITY LICENSE CX-L0 BY BABCOCK & WILCOX 1 (SECY-82-469) (ADAMS Accession No. ML13325B135) [hereinafter B&W SECY PAPER]).

201. SECY-14-0089, encl. 2, *supra* note 57, at 7 (citing B&W SECY PAPER, encl. B, *supra* note 200, at 1 (Legal Analysis)).

202. *Id.* (citing B&W SECY PAPER, *supra* note 200).

The Staff and Commissioner Baran have both distinguished this example because, “McDermott International’s stock, however, was largely owned by U.S. citizens, and its *management* was composed of U.S. citizens.”²⁰³ However, this position conflates an analysis of ownership with indicia of control and domination. While shareholders own the company, the board and management control the company.²⁰⁴ If ownership is to be treated as a separate restriction, and 100% indirect ownership is therefore never allowable under the AEA, there should be no measure of control that can overcome this prohibition.²⁰⁵

The approach taken with McDermott was memorialized in the Commission-approved SRP. The SRP states that if a 100% indirectly-foreign-owned company seeks a facility license, it is generally impermissible. Yet “[i]f the foreign 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 a license, notwithstanding the foreign control limitation.”²⁰⁶ Although this statement leaves out the problem with using management to overcome an issue with ownership, the SRP now explicitly combines ownership and control concerns. It allows 100% foreign indirect ownership of a licensee if the shareholders are U.S. citizens and other measures are taken that mitigate “the foreign *control* limitation.”²⁰⁷ The SRP cites a provision designed to deal with *control* of special nuclear material as an example of an ownership mitigation measure. There is no explanation provided for why factors affecting the amount of control over a company would mitigate the independent prohibition of ownership.

203. *Id.* (emphasis added); CVR, *supra* note 148, at 16; *see also* B&W SECY PAPER, encl. B, *supra* note 200, at 13 (“However, a reasonable argument can be made, based upon the management of the foreign corporation, the distribution of stock ownership, and the possible imposition of conditions on B&W, that the arrangement would not violate the [AEA] section 104d prohibition.”). The Staff made the interesting conclusion in its analysis of the McDermott case that “foreign incorporation of the parent of B&W is, at least at the outset, no bar to the continuation of the B&W facility license” under the AEA FOCD provision. *Id.* at 8.

204. Troy Paredes, *The Firm and the Nature of Control: Toward a Theory of Takeover Law*, 29 J. CORP. L. 103, 109 (2003) (citing ADOLF A. BERLE, JR. & GARDINER C. MEANS, *THE MODERN CORPORATION AND PRIVATE PROPERTY* (1932)) (restating the conclusion from the seminal 1932 publication on the structure of corporations by Berle and Means: “B&M reasoned that because of collective action problems and rational apathy, dispersed shareholders are unable to coordinate their activities, and effective control of the corporation ends up in the hands of management. The outcome: the separation of ownership (which resides in the shareholders) from control (which resides in management).”). Board and management do not own the company by virtue of their position, although often corporate officers also own shares in the company.

205. It is clear in this circumstance there was no real threat to national security; it was a paper-swap of ownership rights in a very low-energy non-power reactor, with no real threat to national security. B&W SECY PAPER, encl. B, at 1–2 (noting that operations were still to be conducted from the U.S. and that the Panamanian shell company “has no significant assets in Panama”); *Backgrounder on Research and Test Reactors*, NUCLEAR REG. COMM’N, <http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/research-reactors-bg.html> (last updated Aug. 5, 2015) (on file with authors) (“Research and test reactors “range in size from 0.10 watt (less than a night light) to 20 megawatts-thermal (equivalent to 20 standard medical X-Ray machines).”). Nonetheless, the Staff and Commissioner Baran chose not to differentiate the McDermott example on these grounds.

206. Final Standard Review Plan on Foreign Ownership, Control, or Domination, 64 Fed. Reg. 52,355, 52,358 (Sept. 28, 1999). The SRP has quotation marks around the term “largely,” but those quotation marks are uncited. It appears they come from the language used by the Staff in McDermott. This exception does not appear to represent a view by the NRC Staff that 100% foreign indirect ownership is permissible, but that in a case where the shareholders are U.S. citizens, the foreign parent is not really a foreign parent. *Supra* notes 105, 203.

207. Final Standard Review Plan on Foreign Ownership, Control, or Domination, 64 Fed. Reg. at 52,358.

One potential reading of this passage of the SRP is that 100% indirect ownership by a foreign entity is allowable if the shareholders are U.S. citizens, but the need for “special arrangements” is only to be read as a method to limit issues with exclusively separate foreign control concerns. This view has the benefit of keeping the ownership test under the AEA FOCD provision confined to just corporate indicia of ownership. But it is evident from reading other parts of the SRP in context that the SRP treats ownership as linked to control. For example, the SRP states immediately prior that indirect ownership greater than 50% is allowable “if certain conditions are imposed, such as requiring that officers and employees of the applicant responsible for special nuclear material must be U.S. citizens.”²⁰⁸ And the SRP instructs the NRC Staff to consider control factors when reviewing an application that has high levels of foreign ownership, including “whether the applicant has interlocking *directors or officers* and details concerning the relevant companies,” and “whether the applicant would have any *access* to restricted data.”²⁰⁹ There is simply no practical solution within the SRP to separate the test for ownership from the test for control and domination.²¹⁰

The Commission has not otherwise given guidance on how to test for ownership separately from control and domination. In the seminal *SEFOR* decision, the first and most often cited decision on FOCD matters, the AEC²¹¹ explained that the provision “should be given an orientation toward safeguarding the national defense and security,” and that the intent of Congress was to prevent situations “where the will of one party is subjugated to the will of another.”²¹² While the *SEFOR* AEC decision illuminated the Congressional intent behind the FOCD provision, it did not distinguish between the three prongs. Indeed, when describing the provision’s meaning, the AEC always discussed the three terms—owned, controlled, and dominated—together.²¹³ This approach has not changed. In the more recent 2014 and 2015 *South Texas* decisions, discussed more below, the Licensing Board evaluated ownership considerations as a “*factor*, in conjunction with other factors,” to determine if the FOCD prohibition was satisfied.²¹⁴ The Commission unanimously affirmed the Licensing Board’s decision, failed to provide a rationale or roadmap for interpreting the three terms

208. *Id.*

209. *Id.* (emphasis added).

210. The SRP again groups together the various FOCD terms in its basic guidance, when it states that “[a]n 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. The Commission has stated that the words ‘owned, controlled, or dominated’ mean relationships where the will of one party is subjugated to the will of another.” *Id.* (citing *Gen. Elec. Co. & Sw. Atomic Energy Assocs. (SEFOR)*, 3 A.E.C. 99, 101 (1966) [hereinafter *SEFOR*]).

211. AEC decisions are giving the same precedential value as modern NRC decisions. Moreover, the AEC Commissioners had a chance to speak directly with Congress on the FOCD provision. *Supra* note 83.

212. *SEFOR*, *supra* note 210, at 101. The *SEFOR* decision concerned the construction of a 20 Megawatt test reactor, owned by Southwest Atomic Energy Associates, but in which a German company, Gesellschaft für Kernforschung, participated heavily in and had contractual rights to manage certain core project elements. *Id.* at 100.

213. *See, e.g., id.* at 101-03.

214. *Nuclear Innovation N. Am. LLC* (South Texas Project Units 3 & 4), LBP-14-3, 79 N.R.C. 267, 286 (2014).

of the FOCD provision as separate prohibitions, and did not counsel against adopting the more flexible “factor” approach taken by the Licensing Board.²¹⁵

The second roadblock before the agency’s current argument for three separate tests within the FOCD Provision is that the Commission has historically declined to analyze *control* separate from *domination*. In both *SEFOR* and *South Texas*, control and domination concerns have always been discussed in tandem.²¹⁶ Neither does the SRP ever discuss a situation where a facility may be under foreign domination but not control.²¹⁷ When discussing NAPs, the SRP discusses measures that can be used to mitigate “control or domination” but fails to explain which measure would mitigate control but not domination, and vice versa.²¹⁸ Indeed, the *South Texas* Licensing Board expressed frustration at its inability to parse the meaning of the two operative words from Commission guidance or general legal texts.²¹⁹

If it were true that the FOCD provision has “[f]or decades”²²⁰ been interpreted as three separate tests, the test for ownership should have developed fundamentally differently from the more holistic tests for control or domination, which are more flexible terms.²²¹ As Commissioner Baran has suggested, a test for ownership would likely look like a bright line test; if a company is more than 50% foreign-owned by voting stock, directly or indirectly, no license is possible, no matter the NAP.²²² Yet that is not how the agency has acted. The SRP explicitly allows foreign indirect ownership greater than 50% and intermingles ownership, control, and domination considerations.²²³ Commission and Licensing Board decisions have not done a better job drawing a distinction. Of course, when faced with the issue and the prospect of judicial review, the Commission can change its interpretation of a statute it administers and more explicitly adopt a three-separate-test approach, or eschew it.²²⁴ However, a change in policy has to be defended and explained.²²⁵ Either change will likely require a far more

215. *Nuclear Innovation N. Am. LLC* (South Texas Project Units 3 & 4), CLI-15-7, 81 N.R.C. 481, 494-96 (2015).

216. See, e.g., *SEFOR*, *supra* note 210, at 101-02; *Nuclear Innovation N. Am. LLC*, CLI-15-7, 81 N.R.C. at 494-96.

217. The SRP never uses the word “domination” without the word “control” preceding it. See generally Final Standard Review Plan on Foreign Ownership, Control, or Domination, 64 Fed. Reg. at 52,355. In addition, the SRP appears uses the word “control” more generally to represent all FOCD concerns throughout the SRP. See, e.g., *id.* at 52,355 (“The SRP also sets forth substantive guidance consistent with existing Commission precedent on what may constitute foreign control.”).

218. *Id.* at 52,359.

219. *Nuclear Innovation N. Am. LLC*, LBP-14-3, 79 N.R.C. at 307 (concluding that neither Commission regulations, case law, AEA legislative history, nor Black’s Law Dictionary provide any guidance for separating the meanings of *control* and *domination*).

220. CVR, *supra* note 148, at 16.

221. *Supra* note 56.

222. CVR, *supra* note 148, at 16.

223. Final Standard Review Plan on Foreign Ownership, Control, or Domination, 64 Fed. Reg. at 52,358.

224. National Cable & Telecomms. Ass’n v. Brand X Internet Servs., 545 U.S. 967, 981 (2005) (“Agency inconsistency is not a basis for declining to analyze the agency’s interpretation under the *Chevron* framework.”).

225. *Perez v. Mortgage Bankers Ass’n*, 135 S. Ct. 1199, 1209 (2015) (quoting *FCC v. Fox Television Stations*, 556 U.S. 502, 515 (2009) (“[T]he APA requires an agency to provide more substantial justification when ‘its new policy rests upon factual findings that contradict those which underlay its prior policy; or when its

concerted effort than the Commission envisioned under Option 3 of the SECY paper. But without such an effort, the NRC may encounter pushback against the claim that it has consistently interpreted the FOCD provision when past agency action demonstrates the opposite.²²⁶

C. Future Litigation Likely Without Commission Action

The Commission's Fresh Assessment of its FOCD rules has generated significant discussion, feedback, and an excellent review of the issues by the Staff. It is the authors' view, however, that this is not the end of the discussion, but the start. Foreign interest in the U.S. nuclear industry, and indeed America's reliance on foreign companies to support the domestic industry, is only increasing. The CVR is just a start, and is not meant to be the Commission's final agency action. However, the Commissioners' incomplete decision on how to move forward leaves applicants unclear if they can seek foreign indirect investment for not just all of their nuclear power plant, but even 51%. This can have a significant impact on investment in the industry. NEI, the nuclear industry's representative, has argued that "[i]mplementing Option 3 alone will likely be insufficient to address the realities of the global nuclear marketplace."²²⁷

The Commission's lack of ability to move forward on a solution regarding foreign ownership leaves the NRC Staff in a position to set the threshold for how much foreign ownership is permissible. Although the Staff has historically been very willing to work with the public and industry to come to a consensus conclusion, this appears to be an area where intractable differences with industry will only grow. In *Calvert Cliffs*, we saw EDF willing to challenge the Staff's position in front of a Licensing Board. Although the applicant lost in that case, applicants could be emboldened by their recent victory in *South Texas*. It is clear from *South Texas* that there is a different interpretation of the FOCD provision between the NRC Staff and the Commission and ASLBP. Applicants may eventually move as far as to challenge the SRP itself when it is revised. Apart from industry, intervenor groups may be also eager after reading Commissioner Baran's CVR statement to intervene in the other direction and argue that the AEA permits no more than 50%, or no more than 0%, foreign ownership of any type.

It is the authors' opinion that the Commission would be best served to initiate rulemaking to settle this issue.²²⁸ While the Commission can certainly allow the question to trickle up through Licensing Boards and likely receive *Chevron* deference for its decision on review,²²⁹ waiting could result in the Commission

prior policy has engendered serious reliance interests that must be taken into account. It would be arbitrary and capricious to ignore such matters."); *Smiley v. Citibank (S.D.), N.A.*, 517 U.S. 735, 742 (1996).

226. *Fox Television*, 556 U.S. at 515 ("To be sure, the requirement that an agency provide a reasoned explanation for its action would ordinarily demand that it display an awareness that it is changing position. An agency may not, for example, depart from a prior policy *sub silentio* or disregard rules that are still on the books."); see also *PIERCE*, *supra* note 195, § 11.5.

227. *Comments of the Nuclear Energy Institute on SECY-14-0089*, NUCLEAR ENERGY INST., § III.A (Nov. 24, 2014).

228. There is no question the NRC has authority to interpret the AEA FOCD provision.

229. It is clear that agencies can receive deference for interpretations of statutes they control when those interpretations are made through rulemaking or formal adjudication. *PIERCE*, *supra* note 195, at 508. It is unclear the deference awarded agency actions made in informal adjudications. Licensing Boards often conduct their

losing the ability to make a controlling determination. The SEED Coalition, intervenors in the *South Texas* proceeding, have stated they will appeal the Commission's decision to issue a license to the applicant on FOCD grounds.²³⁰ Likewise, Savannah River Site Watch has indicated that they are planning to challenge the 30% Areva/EDF ownership share in the mixed-oxide (MOX) fuel fabrication facility if Areva/EDF enters into partnership with a Chinese company.²³¹ A potential challenge to the Commission's decision in *South Texas* or with the MOX facility could present an opportunity for an Appeals Court to define the framework elements of the AEA FOCD provision, instead of the Commission. As Commissioner Svinicki noted, there is not a majority currently in favor of conducting a rulemaking.²³² The arrival of a fifth NRC Commissioner may also prove a good time to reevaluate the prospects for a rulemaking on this topic.

IV. ADVOCATING FOR 100% FOREIGN INDIRECT OWNERSHIP OF NUCLEAR PLANTS UNDER THE AEA.

This article demonstrates that the issue of foreign ownership of U.S. nuclear reactors will become increasingly important in the future, and that the Commission's recent actions cannot resolve the underlying fundamental question—can foreign entities indirectly own greater than 50%, and up to 100%, of a nuclear power plant under the AEA? Acknowledging that it is a complex issue, in Part IV of this article the authors provide a few strategies for the public or the Commission to consider in order to interpret the FOCD provision to allow 100% indirect ownership of utilization and production facilities under the *Chevron* framework.²³³ Our analysis builds off of the NRC Staff's comprehensive analysis

licensing and enforcement hearings under Subpart L, a unique set of rules that, in particular, limit the ability of parties to cross-examine witnesses. 10 C.F.R. §§ 2.711(c)(1), 2.1204(b)(3) (2009). The Subpart L process, however, was upheld as meeting the AEA's requirement for formal, on-the-record adjudicatory proceedings, albeit somewhat narrowly and in only one Circuit. *Citizens Awareness Network, Inc. v. United States*, 391 F.3d 338, 355 (1st Cir. 2004) (“Though the Commission's new rules may approach the outer bounds of what is permissible under the APA . . .”). Nonetheless, the formality and sophistication of the Licensing Board process, with its three-judge panels and professionally-conducted hearings, along with an opportunity for the Commission to review the whole record, lends towards granting Commission interpretations of the AEA made through this process significant deference. *Barnhart v. Walton*, 535 U.S. 212, 222 (2002).

230. Sergio Chapa, *Environmentalists Threaten Lawsuit if STP Nuclear Reactor Permits get Approved*, SAN ANTONIO BUS. JOURNAL (Nov. 6, 2015), <http://www.bizjournals.com/sanantonio/news/2015/11/06/environmentalists-threaten-lawsuit-if-stp-nuclear.html>. The Commission authorized issuance of the license on February 9, 2016. *Nuclear Innovation N. Am. LLC* (South Texas Project Units 3 & 4), CLI-16-02, 82 NRC (slip op.) (Feb. 9, 2016).

231. Letter from Tom Clements, Savannah River Site Watch, to Paul Bosco, U.S. Dep't of Energy, Concerning Areva Ownership in CB&I Areva MOX Services: 30% or 48%? Possible need for new review of Foreign Ownership, Control or Influence (FOCI) and/or Facility Security Clearance (FCL); NRC Response Requested (Nov. 24, 2015). While the MOX license was issued under 10 CFR part 70, and thus does not require consideration of “foreign ownership, control, and domination,” inimicality is still a claim upon which intervenors could bring a contention. *Id.*; 10 C.F.R. § 70.31 (2007).

232. CVR, *supra* note 148, at 7.

233. The authors likewise posit that pursuing a legal rationale that supports 100% indirect ownership is more defensible than trying to read the AEA as permitting somewhere between 51% to 99% foreign indirect ownership, but not 100%.

of the topic, NEI's own legal research, Commission and ASLBP precedent, and the practices of other agencies.

Chevron operates in two steps. First, has Congress directly spoken to the precise question at issue?²³⁴ In this preliminary step, the court will read the statute largely independent of the agency's analysis to determine whether Congress' intent is clearly established, applying traditional rules of statutory construction.²³⁵ *Chevron* step two requires that if the statute is silent or ambiguous with respect to the specific issue, the court must determine whether the agency's answer is based on a permissible construction of the statute.²³⁶

This part contains two sections. In the first section, the authors present three different *Chevron*-based strategies for interpreting the AEA to allow 100% foreign indirect ownership. The first aims to interpret the term "owned" to limit only direct ownership. The second aims to interpret the whole FOCD provision, espousing a factor-based analysis. Both of these analyses have been presented before to the Commission, but are hereupon expanded. The third is a hybrid of the two prior arguments. In Part IV section two, the authors present two policy arguments supporting a conclusion that reading the FOCD provision to allow for 100% foreign indirect ownership of a nuclear power plant is reasonable under *Chevron* and promotes the overarching "national security" intent behind the FOCD provision. These provide policy support and evidence of Congressional intent regardless of the routes taken to justify the interpretation legally under *Chevron*.

A. Three Different Strategies for Allowing 100% Foreign Indirect Ownership Under *Chevron*

1. Reinterpreting the Word "Owned" Under *Dole Food Co. v. Patrickson*

In its SECY Paper, the NRC Staff recognized that there is some legal support for reinterpreting ownership to mean only direct ownership looking to the United States Supreme Court decision in *Dole Food Co. v. Patrickson*, 538 U.S. 468 (2003).²³⁷ They briefly described the case, but deemed the approach overly time-intensive relative to the potential gain.²³⁸ Commissioner Ostendorff, however, embraced the decision in his CVR.²³⁹ The authors find the *Dole* argument to be quite compelling and examine it further.

In *Dole Food Co. v. Patrickson*, the question before the Supreme Court was whether the corporations at issue, the Dead Sea Companies, were instrumentalities of Israel, the indirect owner of the companies.²⁴⁰ The Dead Sea Companies wanted to be regarded as instrumentalities of Israel to allow for removal to federal

234. *Chevron U.S.A., Inc. v. NRDC*, 467 U.S. 837, 842 (1984).

235. Under the *Chevron* doctrine, ambiguity or silence in the statute represents an implicit delegation of delegation to the agency to fill the gaps. See e.g., *Chevron*, 467 U.S. at 843-44.

236. *Chevron*, 467 U.S. at 843; *Michigan v. EPA*, 135 S. Ct. 2699, 2707 (2015) ("*Chevron* directs courts to accept an agency's reasonable resolution of an ambiguity in a statute that the agency administers." (citing *Chevron*, 467 U.S. at 842-43).

237. SECY-14-0089, *supra* note 57, at 15 & encl. 3 at 7-8.

238. *Id.* at 15, 19 & encl. 3 at 8.

239. CVR, *supra* note 148, at 10.

240. *Dole Food Co. v. Patrickson*, 538 U.S. 468, 473 (2003).

district court.²⁴¹ The definition of instrumentality in the Foreign Sovereign Immunities Act of 1976 (FSIA) in turn looked to ownership, and covered an entity in which the “majority of whose shares or other ownership interest is *owned* by a foreign state or political subdivision thereof.”²⁴² Therefore, the question was whether Israel “owned” the Dead Sea Companies under FSIA given its indirect ownership stake in those entities.²⁴³

The Court majority opined that, in the formal sense, “ownership” means just direct ownership.²⁴⁴ They disagreed that ownership should be interpreted in a “colloquial” sense in the statute, because “[i]t is evident from the Act’s text that Congress was aware of settled principles of corporate law and legislated within that context.”²⁴⁵ As “indicia” that Congress “had corporate formalities in mind” when writing FSIA, the Court noted that FSIA refers to terms like “shares” and “corporate” in the section at issue.²⁴⁶ Having settled that corporate law governs the reading of “owned” in FSIA, the Court differentiated easily between direct and indirect ownership.²⁴⁷ The majority opinion explained, “[a] corporate parent which owns the shares of a subsidiary does not, for that reason alone, own or have legal title to the assets of the subsidiary; and, it follows with even greater force, the parent does not own or have legal title to the subsidiaries of the subsidiary.”²⁴⁸ The Court concluded that Congress has been more than capable for some time (going back as far as 1935) of extending the word “owned” to cover indirect ownership within the corporate law context, if it wanted to: “Where Congress intends to refer to ownership in other than the formal sense, it knows how to do so. Various federal statutes refer to ‘direct and indirect ownership.’”²⁴⁹

The application of corporate law meaning to the word “owned” has been adopted by lower courts. The Second Circuit, citing to the rule from *Dole*, noted that it is an “elementary principle of corporate law that corporations are distinct from their shareholders.”²⁵⁰ It held that “[t]he Supreme Court made it unmistakably clear that . . . ‘only direct ownership of a majority of shares by the foreign state satisfies the [FSIA’s] statutory requirement.’”²⁵¹ In another decision, the D.C. Circuit further emphasized that while other rights, such as property rights,

241. *Id.* at 472.

242. Foreign Sovereign Immunities Act of 1976, 28 U.S.C. § 1603(b)(2) (emphasis added).

243. “The State of Israel did not have direct ownership of shares in either of the Dead Sea Companies at any time pertinent to this suit. Rather, these companies were, at various times, separated from the State of Israel by one or more intermediate corporate tiers.” *Dole*, 538 U.S. at 473.

244. *Id.* at 476 (“Where Congress intends to refer to ownership in other than the formal sense, it knows how to do so. Various federal statutes refer to ‘direct and indirect ownership.’”).

245. *Id.* at 474.

246. *Id.*

247. *Id.* at 475.

248. *Dole*, 538 U.S. at 475.

249. *Id.* at 476 (citing examples from the Federal Employees’ Retirement System Act of 1986, at 5 U.S.C. § 8477(a)(4)(G)(iii), 1982 revisions to the nation’s banking laws, at 12 U.S.C. § 84(c)(5), the Public Utility Act of 1935, at 15 U.S.C. § 79b(a)(8)(A) (provision repealed in Pub. L. No. 109-58 (2005)), and the Newspaper Preservation Act of 1970, at 15 U.S.C. § 1802(3). The NRC acknowledges that Congress has used this direct/indirect ownership differentiation before, and cited in SECY-14-0089 to a tax law provision as an example, at 26 U.S.C. § 958(a)(2). SECY-14-0089, encl. 3, *supra* note 57, at 18.

250. *Filler v. Hanvit Bank*, 378 F.3d 213, 218 (2004).

251. *Id.* at 219 (quoting *Dole*, 538 U.S. at 474).

can ignore corporate law distinctions, a statutory provision explicitly including ownership as one of its tenets must include consideration of corporate law principles.²⁵² Another D.C. District Court case which is relevant dealt with FSIA after *Dole*.²⁵³ In an attempt to aid plaintiffs, Congress had amended the execution section of the FSIA to declare:

[T]he property of a foreign state against which a judgment is entered . . . and the property of an agency or instrumentality of such a state, including property that is a separate juridical entity or is an *interest held directly or indirectly* in a separate juridical entity, is subject to attachment in aid of execution, and execution, upon that judgment as provided in this section²⁵⁴

The District Court found that Congress included this language “to overcome the effect of *Dole Food Co. v. Patrickson*, which would have the effect that an entity owned indirectly by a foreign state, through another wholly-owned entity, was not an ‘agency or instrumentality’ of the foreign state.”²⁵⁵

Dole’s corporate law reading of the word “owned” in FSIA applies just as well to the reading of “owned” in the AEA FOCD provision. The key question under *Dole* is whether Congress intended to apply corporate law principles when writing the AEA FOCD provision. To answer this, we can first look to failed proposed amendments of this section. Congress first intended to prohibit under the FOCD provision licenses to entities “*owned or controlled by a foreign corporation or government,*” “or if more than 5 per centum of its *voting stock* is owned or voted by aliens or their representatives or if more than 5 per centum of its *members* are aliens, or if any *officer, director, or trustee* is not a citizen of the United States.”²⁵⁶ This language clearly incorporates corporate law terms, “*indicia*” that Congress “had corporate formalities in mind” when writing the 1954 Act.²⁵⁷ Although this language was later rejected, it is hard to believe that Congress simply forgot about the existence of corporate law after publication of the first draft of the bill.

Indeed, commenters in the May 1954 hearings on the 1954 Act reinforced these corporate law concepts. One commenter to the Joint Committee pointed out the Federal Communications Act to the Joint Committee writing the 1954 Act, and its differential treatment of direct versus indirect owners of radio stations.²⁵⁸ Another commenter noted a provision of the Federal Power Act that used both “direct” and “indirect” when referring to ownership.²⁵⁹ The NRC Staff itself acknowledges Congress’s “seeming awareness of basic corporate law principles when it enacted the FOCD provision,” and that that “[t]he FOCD provision speaks

252. *Helmerich & Payne Int’l Drilling Co. v. Bolivarian Republic of Venezuela*, 784 F.3d 804, 815 (D.C. Cir. 2015).

253. *See generally* *Estate of Heiser v. Islamic Republic of Iran*, 885 F. Supp. 2d 429 (D.D.C. 2012).

254. *Foreign Sovereign Immunities Act of 1976*, § 1610(g).

255. *Calderon-Cardona v. Bank of China*, 867 F. Supp. 2d 389, 407 (citing *Dole*, 538 U.S. at 473).

256. *Supra* note 73.

257. *Dole*, 538 U.S. at 474. Indeed, the draft FOCD provision language itself is geared towards examining whether the *direct* owner of the corporation is an alien, potentially indicating that Congress was more concerned with foreign direct ownership of licensees/applicants.

258. *Supra* note 79.

259. *Supra* note 80.

to corporate structure and relationships.”²⁶⁰ Thus, the presumption of *Dole* read in conjunction with the context in which the AEA was written indicates that Congress did not intend for indirect ownership to carry the same rigid prohibition as direct ownership by foreign companies.

The fact that *Dole* concerned a different statute, FSIA, does not lessen its application here. The Supreme Court in its opinion made no attempt to limit *Dole* to FSIA’s unique role and intent. Instead, the Court’s analysis focused singularly on affirming that in drafting FSIA Congress “was aware of settled principles of corporate law and legislated within that context.”²⁶¹ While the Dead Sea Companies tried to point to other parts of FSIA to imply a broader meaning of the word “owned,” the Supreme Court rejected such fishing expeditions: “The better rule is the one supported by the statutory text and elementary principles of corporate law.”²⁶²

In fact, looking to different statutes only strengthens the argument that *Dole* applies to the FOCD provision. Across the federal government, agencies have interpreted statutes that restrict licensing to foreigners to apply only at the direct ownership level. The Mineral Leasing Act of 1920,²⁶³ which was passed before the AEA, only allows ownership of mineral deposits to citizens or corporations “of the United States.”²⁶⁴ However, the NRC Staff acknowledges that this act has been interpreted by the agency to therefore allow foreign investors to hold “up to 100 percent of a U.S. company that holds mineral or mining leases.”²⁶⁵ The Federal Energy Regulatory Commission may only grant initial hydropower licenses to citizens or domestic corporations.²⁶⁶ However, this language does not rule out indirect ownership, and it is generally accepted that foreign entities are permitted to own or control the company that has the license.²⁶⁷ In addition, as repeatedly noted above, the Federal Communications Act also differentiates between direct and indirect ownership in its license ownership restrictions.²⁶⁸ It can be argued that *Dole* did not set out a new norm for how to define “ownership” in a statute, but actually embodied what is already well understood.

260. SECY-14-0089, *supra* note 57, at 10 & encl. 3 at 18.

261. *Dole*, 538 U.S. at 474.

262. *Id.* at 477. Although often cited for FSIA cases, the fundamental holdings of *Dole* have been applied to cases that do not have to do with FSIA. See, e.g., *Ranza v. Nike, Inc.*, 793 F.3d 1059, 1070 (9th Cir. 2015); *Unilever Home & Pers. Care USA v. P.R. Beauty Supply, Inc.*, 162 Fed. Appx. 22 (1st Cir. 2006) (although unpublished, the decision still highlights the First Circuit’s willingness to use *Dole* outside of the FSIA context).

263. Mineral Leasing Act of 1920, Pub. L. No. 114–38, 129 Stat. 437 (codified as amended at 30 U.S.C. §§ 181–287 (2011)).

264. 30 U.S.C. § 181 (2011).

265. SECY-14-0089, encl. 5, *supra* note 57, at 8.

266. 18 C.F.R. § 4.31(a) (2015).

267. See THE INTERNATIONAL COMPARATIVE GUIDE TO PROJECT FINANCE 2014 323–24 (3d. ed.), available at <http://digital.milbank.com/i/354932-iclg-project-finance-2014-united-states/5>.

268. *Supra* note 79. When this distinction was called into question, in 2012, the Federal Communications Commission, through administrative action, made clear that it’s lower, 20% bar on foreign ownership of a U.S. licensee would not apply if the foreign owner did not control the licensee. *Foreign Ownership Rules and Policies for Common Carrier, Aeronautical En Route and Aeronautical Fixed Radio Station Licensees*, FED. COMM. COMM’N (Aug. 17, 2012), <https://www.fcc.gov/encyclopedia/foreign-ownership-rules-and-policies-common-carrier-aeronautical-en-route-and-aeronauti>.

The dissent in *Dole* does not challenge the author's conclusions either. Justice Breyer's dissenting opinion in *Dole* focused on the portion of the FSIA provision covering entities whose "ownership interest is owned by" another entity.²⁶⁹ He believed this language applied FSIA to cases of indirect ownership.²⁷⁰ This same reasoning cannot be applied in the case of the FOCD provision, since the word "interest" does not appear in the AEA, nor is any distinction made between the primary or secondary owner. The dissent in *Dole* may even support the opposite. The text and legislative history of the FOCD provision, as the Staff admits, lends to the view that Congress looked at ownership in a very corporate law-driven context. Instead of referring to broad terms such as "ownership interest," Congress simply used the word "owned" in the final statute, and previously used even more nuanced corporate law terms, such as "voting stock" or "members."²⁷¹

There are two ways to apply the *Dole* argument. The Commission could posit that Congress was clear when it wrote "owned" in the FOCD provision to limit only direct ownership, given the many indicia present that Congress was well aware of corporate law in writing the 1954 Act. This is a *Chevron* Step 1-style argument, and has some potential given the United States Supreme Court's broad and confident language in the *Dole* decision. Alternatively, the Commission could posit that the word "owned" in the FOCD provision is vague, an argument for which there is significant ammunition, and then use *Dole* to help argue under *Chevron* Step 2 that reading "owned" to prohibit direct ownership is reasonable. Part IV.B of this article presents policy arguments that could be used to buttress the argument that such an interpretation is reasonable and in line with Congress' intent to promote national security.

2. Treating the FOCD Provision as Factors Instead of Three Separate Prohibitions

Another option is to look at the FOCD provision as a whole and reinterpret it. This is akin to what was suggested by NEI, reading the FOCD provision as an "integrated whole," with a focus on protecting national defense and security.²⁷² However, this approach differs in critical details, and as a result should not subordinate ownership to control or leave "owned" without a purpose in the statute, both concerns raised by the NRC Staff.²⁷³

The critical part of this approach is addressing the statutory language to show that it does not preclude an alternative to the three-separate-prohibition viewpoint advocated by the NRC Staff and others. The FOCD provision prohibits a license to a company "owned, controlled, or dominated by" a foreign entity.²⁷⁴ The NRC Staff and others read this as requiring "three distinct prohibitions with an 'or' connector."²⁷⁵ Indeed, when determining if the meaning of a provision is vague or plain, "the court's analysis [often] begins with 'the most traditional tool of

269. *Dole*, 538 U.S. at 481.

270. *Id.* at 481.

271. *Supra* note 73.

272. NEI AUGUST 2013 COMMENTS, *supra* note 63, at 2, 6.

273. SECY-14-0089, *supra* note 57, at 10.

274. 42 U.S.C. § 2133(d).

275. SECY-14-0089, *supra* note 57, at 10 (emphasis added).

statutory construction, [reading] the text itself.”²⁷⁶ Moreover, significant case law supports that, “terms connected by a disjunctive [should] be given separate meanings, unless the context dictates otherwise.”²⁷⁷ But context is important: “oftentimes the ‘meaning—or ambiguity—of certain words or phrases may only become evident when placed in context.’”²⁷⁸ And here, context is very important, along with the “structure, purpose, and legislative history” of the AEA, all of which can play a strong role in statutory interpretation along with the text.²⁷⁹ There are at least three reasons why the legislative history, purpose, and context of the FOCD provision indicate that while ownership contributes a unique *meaning* and insight to the FOCD provision, it is not required to be a separate and unique *prohibition*—instead, it is possible to read the FOCD provision as a single prohibition that treats ownership as a factor.

a. Legislative History & Purpose

The legislative history of the FOCD provision indicates that at one point, when the first bill was introduced, Congress was seriously concerned about foreign ownership, and in setting specific foreign ownership limits.²⁸⁰ However, the subsequent hearing testimony and revisions lessened the significance of ownership-as-a-bar in the FOCD provision. Instead, commenters on the bill suggested that the Joint Committee writing the 1954 Act focus on control and domination concerns rather than ownership, and one even posited that a bar on ownership goes against the meaning of the 1954 Act.²⁸¹ While the final language of the 1954 Act prohibits licenses to be given to those “owned, controlled, *or* dominated” by foreigners, the legislative history of this act deemphasizes the role ownership should play as an independent restriction. As discussed in Section II.A of this article, Congress did not really provide an explanation for why it adopted any of the three terms of the FOCD provision, or why it adopted the provision at all.

In *SEFOR*, the AEC provided its own review legislative history of the FOCD provision, and concluded that any hard ownership prohibition was left out by Congress due in large part “to the suggestions then made [in 1954] that the denial of a license be prescribed when actual *control* or *domination* was in alien

276. *Wolf Run Min. Co. v. Fed. Mine Safety and Health Review Comm’n*, 659 F.3d 1197, 1200 (D.C. Cir. 2011) (quoting *City of Tacoma v. FERC*, 331 F.3d 106, 114 (D.C. Cir. 2003)).

277. *Association of Private Sector Colleges and Universities v. Duncan*, 681 F.3d 427, 451 (D.C. Cir. 2012) (modification in original) (quoting *Reiter v. Sonotone Corp.*, 442 U.S. 330, 339 (1979)); *see also* *Dunn v. Commodity Futures Trading Comm’n*, 117 S. Ct. 913, 917 (1997); *Acosta v. City of Costa Mesa*, 718 F.3d 800, 815 (9th Cir. 2013) (“California courts follow the common rule of statutory construction that gives disjunctive and distinct meaning to items separated by the word ‘or.’”).

278. *King v. Burwell*, 135 S. Ct. 2480, 2489 (2015) (quoting *Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 132 (2000)). “A statute is passed as a whole and not in parts or sections and is animated by one general purpose and intent.” 2A NORMAN SINGER & SHAMBIE SINGER, *SUTHERLAND STATUTORY CONSTRUCTION* § 46:5 (7th ed., 2014).

279. *Loving v. IRS*, 742 F.3d 1013, 1016 (D.C. Cir. 2014) (internal quotation omitted). As stated in *Sutherland Statutory Construction*, “[c]ontrary to the traditional operation of the plain meaning rule, courts increasingly have considered other indicia of intent and meaning from the start, rather than beginning an inquiry only by considering an act’s language.” *SUTHERLAND, supra* note 278, § 46:7.

280. *Supra* note 73.

281. *Supra* § II.A.

hands.”²⁸² The AEC also stated “that the Congressional intent was to prohibit such relationships where an alien has the power to direct the actions of the licensee.”²⁸³ Moreover, when evaluating the applicant in *SEFOR*, the AEC again commented that control and domination “have special significance in view of the apparent objective of section 104(d).”²⁸⁴ Although *SEFOR* was a case about control issues and not about ownership,²⁸⁵ its general interpretation of legislative history is clear and compelling. This holistic explanation of legislative intent in *SEFOR* is difficult to align with treating ownership as a single prohibition—one that the AEC stated should be “be given an orientation toward safeguarding the national defense and security.”²⁸⁶

b. Context—Separating Ownership from Control:

If the FOCD provision is to be considered as three separate prohibitions, ownership should be able to stand alone. Real world application proves this is not just difficult, but potentially impossible. As discussed in Part III.B of this article, it has proven difficult for the Commission and Staff historically to separate ownership concerns from control and domination concerns in application, such as with the McDermott reactor.²⁸⁷ This is understandable, as in general securities law and other areas, control is defined intrinsically within ownership.²⁸⁸ As corporate law advances, this false divide will only be harder to maintain. What if an applicant wanted to use non-voting stock to purchase most of a nuclear power plant? The use of dual-class shares and nonvoting stock is dramatically increasing in the global economy.²⁸⁹ The variety of contractual arrangements using, *inter alia*, debt, sister companies, or group ownership, that can arise in a modern

282. General Electric Company and Southwest Atomic Energy Associates (*SEFOR*), 3 A.E.C. 99, 101 (1966) (citing MADELEINE W. LOSEE, U.S. ATOMIC ENERGY COMM’N, LEGISLATIVE HISTORY OF THE ATOMIC ENERGY ACT OF 1954 1698, 1861, 1961–62, 2098, 2239) (emphasis added).

283. *Id.* at 101.

284. *SEFOR*, *supra* note 210, at 101-02; see also *Commonwealth Edison Co.* (Zion Station, Units 1 & 2), 4 A.E.C. 231, 234 (1969) (upholding the position represented in *SEFOR*, and adding that evidence of corporate “direction” by a foreign power would likely be seen in the organization and management of the applicant).

285. SECY-14-0089, *supra* note 57, at 11.

286. *SEFOR*, *supra* note 210, at 101. The Commission also stated that “[t]he ability to restrict or inhibit compliance with security or other regulations of AEC” is of “greatest significance,” again focused on control and domination concerns, not the corporate formalities present with ownership. *Id.*

287. *Supra* § III.B.

288. *United States v. Byron*, 408 U.S. 125, 138 n.13 (“Under most circumstances, a stockholder who has the right to vote more than 50% of the voting shares of a corporation ‘controls it’ in the sense that he may elect the board of directors Securities law practitioners recognize that possessing 10% or more of voting power is a factor on which the Securities and Exchange Commission relies as one of the indicia of control.”); 17 C.F.R. 230.405 (2011) (defining the term “control” in securities regulations so as to include “ownership of voting securities”); see also 26 U.S.C. § 1563 (2011) (defining control through ownership in a portion of the tax code); *infra* note 339 (The Committee on Foreign Investment in the United States presumes control when there is 10% ownership, direct or indirect.). As stated by the Supreme Court, “the concept of ‘control’ is a nebulous one.” *Byron*, 408 U.S. at 138 n.13.

289. James Surowiecki, *Unequal Shares*, NEW YORKER (May 28, 2012), <http://www.newyorker.com/magazine/2012/05/28/unequal-shares>; see also Matt Orsagh, *Dual-Class Shares: From Google to Alibaba, Is it a Troubling Trend for Investors?*, CFA INST. (Apr. 1, 2014), <https://blogs.cfainstitute.org/marketintegrity/2014/04/01/dual-class-shares-from-google-to-alibaba-is-it-a-troubling-trend-for-investors/>.

transaction make determining when a company is “owned” by another difficult. Indeed that is the very purpose of many types of complex corporate structures. This complexity is part of the reason the NRC has yet to strictly define the provision and apply it only to the narrow 100% ownership case (and yet even there an exception exists). The authors posit that for the ownership term in the FOCD provision to be given a broad meaning that can adapt to the times,²⁹⁰ it must be interpreted in league with the other terms of the provision, control and domination.²⁹¹ While the agency certainly does not want to leave the “owned” term as surplusage,²⁹² the bigger risk of the ownership term becoming meaningless comes from leaving it as an independent, isolated prohibition.

c. Context—Separating Control from Domination:

Sparring over the meaning of ownership and control leaves out the elephant in the room; the agency has never been able to separate *control* from *domination*.²⁹³ The NRC is not alone though. Corporate law generally does not distinguish between a “controlling” versus “dominating” entity, except where domination is an extreme form of control.²⁹⁴ It may be possible, as seen in some Delaware cases, to interpret control as a function of majority stock ownership, while domination occurs when minority shareholders nonetheless manage to influence and guide corporate officer actions.²⁹⁵ But such an approach intertwines control and ownership. In the end, it may simply be impossible to separate out such three interrelated concepts into separate, mutually exclusive prohibitions, and one ought to abandon an overly literal reading.²⁹⁶ Looking back to the AEA, Congress may have implicitly admitted as much when it added “[i]n any event,” following the FOCD provision, offering the inimicality provision as a broad backup.

290. *Supra* § IV.A.

291. This does not mean that the ownership provision cannot be interpreted in a narrow, easily identifiable way, such as limiting it to direct ownership of voting stock. *Supra* § IV.A. This approach is possibly the easiest to parse. But it may not be policy-wise the most appropriate choice. In section IV.C the authors propose an alternative that combines the *Dole* approach with the factor-based analysis.

292. SECY-14-0089, *supra* note 57, at 10 (citing *Duncan v. Walker*, 533 U.S. 167, 174 (2001)); *Bennett v. Spear*, 117 S. Ct. 1154, 1167 (1997).

293. *Supra* § III.B.

294. A seminal case on corporate control for veil-piercing purposes describes domination as extreme and multi-faceted control of the corporate entity. *Lowendahl v. Baltimore & O.R. Co.*, 287 N.Y.S. 62, 247 A.D. 144, 157 (N.Y. App. Div. 1), *aff'd*, 6 N.E.2d 56 (1936) (“Control, not mere majority or complete stock control, but complete domination, not only of finances, but of policy and business practice in respect to the transaction attacked . . .”); *see also Fantazia Intern. Corp. v. CPL Furs New York, Inc.*, 889 N.Y.S.2d 28, 29 (N.Y. App. Div. 1 Dept. 2009) (restating the *Lowendahl v. Baltimore & O.R. Co.* rule).

295. *Kahn v. Lynch Communication Sys., Inc.*, 638 A.2d 1110, 1113 (Del. 1994) (quoting *Citron v. Fairchild Camera & Instrument Corp.*, 569 A.2d 53, 70 (Del. 1989) (“For a dominating relationship to exist in the absence of controlling stock ownership, a plaintiff must allege domination by a minority shareholder through actual control of corporation conduct.”)). In *Kahn*, the minority shareholder, Alcatel, only held a 43% interest in the company *Lynch*, but still was held to have dominated corporate affairs. *Kahn*, 638 A.2d at 1115. The court nonetheless still mixes together “control” and “domination.” *See, e.g., id.* (“Alcatel did exercise actual control over *Lynch* by dominating its corporate affairs.”).

296. SUTHERLAND, *supra* note 278, § 46:7.

d. The *South Texas* Decision and Moving Forward:

The practical impossibility of treating the three tenets of FOCD as mutually exclusive prohibitions provided a basis for the *South Texas* Licensing Board to suggest a factor-based approach.²⁹⁷ Although *South Texas* was ultimately decided on control issues, rather than ownership,²⁹⁸ its approach is applicable to the entire FOCD provision and deserves closer examination.

The 2014 and 2015 *South Texas* decisions concerned the application by Nuclear Innovation North America (NINA) to build two new reactors near Bay City, Texas.²⁹⁹ Although NINA, a U.S. company, was the primary applicant and 90% holder of the project,³⁰⁰ at the time of the dispute the funding for the application going forward was being provided by Toshiba, which indirectly held the remaining 10% ownership interest.³⁰¹ This case came down to “control” concerns, because the Staff eventually concluded that the ownership stake and funding supplied by Toshiba would put it “in a position to control and dominate NINA.”³⁰²

After a full hearing on the merits, in 2014 a Licensing Board concluded that given the NAPs in place there was no violation of the AEA’s FOCD provision.³⁰³ The Licensing Board in that decision reviewed the SRP and *SEFOR* and again read the FOCD provision as a single prohibition, with the intent of Congress “to prohibit such relationships where an alien has the power to direct the actions of the licensee.”³⁰⁴ Although Toshiba only held a 10% stake in the facility, the Licensing Board looked at ownership concerns, but found that the ownership is to be interpreted not as an individual test but as part of a larger evaluation:

[T]here is no blanket prohibition on direct foreign ownership of an applicant or licensee. Instead, as the SRP makes clear, ownership “must be interpreted in light of all the information that bears on who in the corporate structure exercises control over what issues and what rights may be associated with certain types of shares.”³⁰⁵

297. *Nuclear Innovation N. Am. LLC* (South Texas Project Units 3 & 4), LBP-14-3, 79 N.R.C. 267, 286 (2014).

298. *Id.* at 306-07.

299. *Id.* at 272.

300. *Id.* at 284.

301. *Nuclear Innovation N. Am. LLC* (South Texas Project Units 3 & 4), CLI-15-7, 81 N.R.C. 481, 487 (2015); *Nuclear Innovation N. Am. LLC*, LBP-14-3, 79 N.R.C. at 289.

302. *Nuclear Innovation N. Am. LLC*, LBP-14-3, 79 N.R.C. at 276 (quoting OFFICE OF NUCLEAR REACTOR REGULATION, NUCLEAR REGULATORY COMM’N, FOCD EVALUATION FOR SOUTH TEXAS PROJECT, UNITS 3 & 4 24 (July 1, 2013) (ADAMS Accession No. ML14028A328)) (internal quotation marks omitted).

303. *Nuclear Innovation N. Am. LLC*, LBP-14-3, 79 N.R.C. at 301–09. The Licensing Board found heavily in favor of NINA, even deciding that additional license conditions proposed by NINA to further limit certain FOCD issues were not necessary. *Id.* at 311. The concurring opinion went even farther and determined that the FOCD provision only concerns current scenarios; therefore, any future foreign funding would only create speculative risk and could not be a reason to reject the license. *Id.* at 314 (noting that 42 U.S.C. § 2133(d) prohibits the issuance of a license to any entity that “is owned, controlled or dominated by an alien,” and thus “[w]e have made the determination that there is not currently improper FOCD. This is sufficient to satisfy the conditions for issuance of a license.” (internal quotation marks omitted in first quote)).

304. *Id.* at 280 (citing *SEFOR*, 3 A.E.C. at 101).

305. *Nuclear Innovation N. Am. LLC*, LBP-14-3, 79 N.R.C. at 286.

The Licensing Board then stated that it would evaluate ownership considerations as a “*factor*, in conjunction with other factors,” to determine if the FOCD prohibition was satisfied.³⁰⁶

The Commission unanimously affirmed the board’s decision on April 14, 2015, less than a month before the issuance of its CVR on the FOCD Fresh Assessment.³⁰⁷ In its decision the Commission endorsed the Licensing Board’s “foundational legal rulings governing its analysis.”³⁰⁸ It stated that the board’s decision was “guided by, and consistent with” prior licensing actions, and “consistent with the NRC’s usual practice, which prioritizes ensuring that *decisions* relating to safety at a licensed facility remain in the hands of U.S. citizens.”³⁰⁹ Again, the Commission failed to provide a rationale or roadmap for interpreting the three terms of the FOCD provision as separate prohibitions, nor did the Commission counsel against adopting the more flexible “factor” approach taken by the Licensing Board.³¹⁰ If anything, it would appear the case law after *South Texas* would mandate a factor-based approach to the FOCD provision that emphasizes “safeguarding the national defense and security.”³¹¹

There are two ways to take this. The first is to treat the FOCD provision as consisting of three factors: ownership, control, and domination. The second is to look at the FOCD provision as together considering a number of more general factors, such as “nuclear safety and security,” ownership percentage, type of stock owned, and other mechanisms by which a foreign person can control or influence the actions of the licensee.³¹² The latter approach appears to have been favored by the Licensing Board and Commission in *South Texas*, but the former might fit better with the wording of the FOCD provision.³¹³ Nonetheless, the two approaches might be reconciled by treating ownership, control, and domination as the three necessary and critical factors that determine whether the FOCD provision has been satisfied, but leaving it to the agency to determine how those factors are weighed or determined.

A factor-based approach is not the same as reading the FOCD provision as “one prohibition,” with ownership subordinate to control.³¹⁴ The Staff has rejected this approach because it read out “owned” from the FOCD provision, and because it made the FOCD provision subordinate to the inimicality provision.³¹⁵ In a factor-based approach, ownership is not subordinate to control; both are given

306. *Id.*

307. *Nuclear Innovation N. Am. LLC* (South Texas Project Units 3 & 4), CLI-15-7, 81 N.R.C. at 481.

308. *Id.* at 489.

309. *Id.* at 494-95 (emphasis added).

310. *Id.* at 494-96. It is unclear whether the “factors” the Commission would look to would be the same exact factors that the Licensing Board looked to, but the Commission generally signed off on the Licensing Board’s approach. *Id.* at 496.

311. *Nuclear Innovation N. Am. LLC*, CLI-15-7, 81 N.R.C. at 494. The NRC Staff in *South Texas* took a similar position on review that the FOCD provision “is limited to nuclear safety, security, and reliability.” *Id.* at 496.

312. *Id.* at 496.

313. *Id.* at 494-96. The Licensing Board also indicated that it may have treated “ownership” in itself as a factor. *Nuclear Innovation N. Am. LLC* (South Texas Project Units 3 & 4), LBP-14-3, 79 N.R.C. 267, 286 (2014).

314. NEI AUGUST 2013 COMMENTS, *supra* note 63, at 6–7 (According to NEI, the NRC should “consider ownership as only one of the potential indicia of control.”).

315. SECY-14-0089, *supra* note 57, at 10.

equal weight. This provides for circumstances in which a plant's foreign ownership is just too much of a risk to warrant a license, even if control is mitigated. Under such a factor-based approach, it may ultimately be "infeasible" for a foreign entity to take a 100% ownership stake in a U.S. nuclear plant.³¹⁶ The difference is that this would now be made on a case-by-case determination, with the licensee or applicant able to work with the NRC Staff to allay any concerns, and able to resolve any disagreements before a Licensing Board and then the Commission. The foreign owner would not be precluded at the start from negotiating with the agency as to the topic of greater than 50%, or 100%, foreign ownership. Indeed, the NRC Staff may ultimately prefer such an approach because the alternative, to read each term in the FOCD provision as a separate prohibition, may serve to only prevent foreign direct ownership given the Supreme Court's *Dole* precedent.³¹⁷

3. A Hybrid Approach

Criticisms remain for both approaches discussed above. Under the *Dole* strategy, a foreign entity can create one or many dummy corporations in order to move from directly owning to indirectly owning a licensee (although this concern can be managed).³¹⁸ The factor-based alternative strategy in theory may allow for 100% direct ownership of an applicant or licensee, which may not be desired as a matter of policy. Rather than abandon these approaches as a result, however, it is best to combine them. Through a hybrid approach, the NRC could adopt an interpretation of the FOCD provision that prohibits foreign direct ownership,³¹⁹ ensuring the FOCD provision has some teeth. Then, when looking at foreign indirect ownership, the SRP should insist on a factor-based approach that is closer to legislative intent and gives the NRC Staff more flexibility to protect national security.

This approach is not so different in structure from what the SRP currently entertains. The SRP sets an almost-blanket ban on 100% indirect ownership, but then allows five factors (and possibly more) to be considered at ownership

316. *Id.* at 19. The McDermott plant would serve as a counter-example, however. *Supra* § III.B.

317. *Supra* § IV.A. Although a less important issue, a factor-based approach does not render the FOCD provision, an allegedly more specific provision, subordinate to the broader inimicality either, a concern of the NEI proposal raised by the NRC Staff. SECY-14-0089, *supra* note 57, at 10. This type of question must be answered by looking to the inimicality provision, not the FOCD provision. Prohibiting licensing when it is "inimical to the common defense and security or to the health and safety of the public," the focus of the inimicality provision, could be read to cover every topic possible. It could well encompass and read out the AEA's core requirement for "reasonable assurance of adequate protection of the public health and safety." 42 U.S.C. §§ 2232, 2239; *see also* SECY-14-0089, *supra* note 57, at 10 (The "inimicality provision is a separate statutory requirement that has general application in every licensing matter, irrespective of whether the action involves foreign ownership."). It is instead more important to read a limit into the inimicality provision, one that works with the FOCD provision so that either is not encompassed by the other. The vagueness of the AEA here gives the Commission significant discretion to define how these provisions interact, something the agency it has been able to deftly handle for well over 60 years. Regardless, whether the FOCD provision is applied as a factor-based test or as three separate prohibitions does not affect this broader question, which is beyond the scope of this article. The Commission instructed the NRC Staff in its Staff Requirements Memorandum to present a paper on the topic of inimicality, which should offer further insights.

318. *Infra* § IV.B.2.

319. The NRC could also prohibit indirect ownership via zero-asset dummy corporations. *Infra* § IV.B.2.

percentages less than this value.³²⁰ The hybrid approach suggested would set a blanket ban on foreign direct ownership, but would then allow three factors (and possibly more sub-factors) to be considered in cases of foreign indirect ownership.

B. Policy Arguments in Support of Allowing 100% Foreign Indirect Ownership Generally

The authors have provided legal strategies for arguing why it is legally permissible to read the FOCD provision's ownership term as a limited prohibition on direct ownership, or as part of a three-factor test, or as both. However, for the Commission to implement such an approach, it not only needs to show that it is permissible, but that it is reasonable.³²¹ Under *Chevron*, the court can consider the agency's policy expertise, and how much it has applied this expertise to the question at hand.³²² Indeed, the gambit of policy and expertise considerations examined for deference under *Skidmore* can assist an agency seeking for its view to be considered as reasonable under *Chevron*.³²³

1. Agency Expertise Directs Against Blanket Prohibitions on Foreign Ownership in Matters of National Security

The Commission sought to gain from the expertise of other agencies that deal with these same policy issues when it held an important public meeting in January 2015.³²⁴ Attendees at that meeting included the Director of the Defense Security Service (DSS) for the Department of Defense (DOD) and a former lead on the Committee for Foreign Investment in the United States (CFIUS) for the Department of Homeland Security, among others.³²⁵ The attendees repeatedly stressed that ownership should not be a primary determinant for whether or not to grant a license on national security grounds.³²⁶ Instead, the various agencies took more of a factor-based approach that emphasized control over ownership, and two examples (DSS and CFIUS) are provided below.

Neither the DOD nor the Department of Energy (DOE) may contract for a national security program with a company "controlled" by a foreign government where performance of that contract would require access to "proscribed" information.³²⁷ In order to balance access to foreign technology and foreign

320. *Supra* § II.B; 64 Fed. Reg. at 62,356, 62,358.

321. *Supra* note 182 (and accompanying text).

322. *Barnhart v. Walton*, 535 U.S. 212, 222 (2002).

323. "We frame part of our analysis in terms of whether the [agency's] decision is 'reasonable,' and our conclusions are equally applicable under the less-deferential standard of *Skidmore* as under *Chevron* step two." *Independent Ins. Agents of America, Inc. v. Hawke*, 211 F.3d 638, 643 n.2 (D.C. Cir. 2000); *see also* *Christensen v. Harris County*, 529 U.S. 576, 597 (2000) (Breyer, J., dissenting) ("[T]he Labor Department's position in this matter is eminently reasonable, hence persuasive, whether one views that decision through *Chevron's* lens, through *Skidmore's*, or through both.").

324. NUCLEAR REGULATORY COMM'N, BRIEFING ON FOREIGN OWNERSHIP, CONTROL, AND DOMINATION (2015) (Meeting Transcript) (ADAMS Accession No. ML15037A204) [hereinafter FOCD MEETING TR.].

325. *Briefing on Foreign Ownership, Control, and Domination*, NUCLEAR REG. COMM'N, <http://www.nrc.gov/reading-rm/doc-collections/commission/slides/2015/20150129/> (last updated Jan. 30, 2015); FOCD MEETING TR., *supra* note 324, at 33.

326. FOCD MEETING TR., *supra* note 324, at 7, 35-36, 48-51, 55, 61, 66, 84.

327. 10 U.S.C. § 2536 (2011).

control concerns, DSS, a branch of the DOD, manages the National Industrial Security Program (NISP), a program which helps ensure “U.S. government contracts that require access to classified information will not be awarded to companies operating under foreign ownership, control or influence (FOCI) unless adequate safeguards are in place to protect national security interests.”³²⁸ Yet NISP’s FOCI policy still encourages foreign investment in the U.S. defense industry as beneficial to national security.³²⁹ “DSS contributes to national security by serving as an interface between the government and cleared industry” for the DOD and 28 federal agencies.³³⁰

Stanley Sims, who heads DSS, participated in the public meeting and explained DSS and the NISP program. He acknowledged at the outset that although “we call this FOCI—influence as opposed to dominance—but the terms are absolutely the same.”³³¹ In performing its FOCI analysis, Mr. Sims stated that DSS does not deal in absolutes,³³² but instead considers seven specific factors and one general factor “in the aggregate” prior to making a determination as to foreign control.³³³ Of those factors, one of them is ownership by a foreign government.³³⁴ He explained that these factors can allow for 100% foreign ownership of a defense contractor, and that “there are a lot of 100 percent [foreign] owned companies in the National Industrial Security program.”³³⁵ Mr. Sims added that there are multiples types of mitigation agreements available, ranging from a board resolutions to address minimal foreign ownership, to the option of having the company emplace a voting trust, where the company actually transfers legal title of the company to cleared U.S. trustees, when there is high or total foreign ownership.³³⁶ He reiterated that having defense contractor wholly owned by a foreign government “doesn’t absolutely shut them down,” although DSS does look at them more closely.³³⁷

Turning to CFIUS, Stewart Baker, a former CFIUS lead for the Department of Homeland Security suggested that the NRC might achieve greater flexibility using a format based on CFIUS’s model.³³⁸ He described how CFIUS presumes “control when you get to 10 percent indirect and direct” ownership, but then looks at a combination of factors to figure out “what’s the threat, what’s the vulnerability and what are the consequences if the threat and vulnerability come together in a

328. WILEY REIN, THE DEFENSE SECURITY SERVICE AND FOREIGN OWNERSHIP CONTROL OR INFLUENCE (FOCI) ISSUES HANDBOOK 1 (2012), available at <http://www.wileyrein.com/resources/documents/2012%20FOCI%20Handbook.pdf>.

329. *Id.*

330. *About Us*, DEF. SECURITY SERVICE, http://www.dss.mil/about_dss/index.html (last visited Feb. 5, 2015); FOCD MEETING TR., *supra* note 324, at 12.

331. *Id.* at 11.

332. *Id.* at 48.

333. *Id.* at 12-13; *Foreign Ownership, Control, or Influence (FOCI)*, DEF. SECURITY SERVICE, http://www.dss.mil/isp/foci/foci_info.html (last visited Dec. 19, 2015) [hereinafter DSS FOCI Plan].

334. FOCD MEETING TR., *supra* note 324, at 14; DSS FOCI Plan, *supra* note 333.

335. FOCD MEETING TR., *supra* note 324, at 15-16, 56.

336. *Id.* at 15-16.

337. *Id.* at 49.

338. *Id.* at 33-34.

bad way for us.”³³⁹ He explained additionally that these factors do not emphasize ownership percentages, but instead look to the real risks at play, sabotage or espionage, depending on the circumstances.³⁴⁰ He also compared the Mitigation Agreements used by CFIUS to the NRC’s NAPs, stating that while the NAPs are focused on whether the foreign company is in control and how to negate their control, the mitigation agreements are different but still focused on “ending the threat or the vulnerability or minimizing the consequences.”³⁴¹

In practice the factor-based approaches advocated for by the DOD and CFIUS can result in high levels of foreign indirect ownership of important nuclear facilities. As noted above, the license for the MOX facility, which deals with highly radioactive materials that are proliferation concerns, is held by a collaboration of Cambridge Bridge & Iron, a subsidiary now of Westinghouse, along with Areva/EDF.³⁴² It is interesting to note that with such a complex facility dealing with highly radioactive material, the DOD could allow almost 100% foreign ownership,³⁴³ and the NRC Staff may not find any inimicality concerns, yet the Staff at the same time would not recommend greater than 50% or 100% foreign indirectly owned simpler and arguably less dangerous nuclear power reactors.³⁴⁴

While the longstanding purpose of the FOCD provision is the protection of national security,³⁴⁵ national security does not preclude foreign involvement. A key purpose of the 1954 Act which created the FOCD provision was the creation of a global framework for the advancement of nuclear technology.³⁴⁶ Consequently, the United States has heavily engaged in the transfer of foreign reactor technology abroad. The United States has allowed the transfer of entire reactor designs to foreign countries such as China.³⁴⁷ The NRC has a robust process for addressing interactions with foreign governments and nuclear manufacturers, well executed by the NRC Staff for decades.

Today, foreign exchange may be critical to improving the safety of the civilian nuclear fleet. Congressmen acknowledge that if current trends continue we will be importing reactor designs from abroad.³⁴⁸ New, potentially safer nuclear power plant designs are being developed abroad.³⁴⁹ The money to

339. *Id.* at 34.

340. FOCD MEETING TR., *supra* note 324, at 35-36.

341. *Id.* at 35.

342. Letter from Tom Clements, *supra* note 231; *Westinghouse Acquires CB&I Stone & Webster, Inc.*, BUS. WIRE, (Oct. 7, 2015), <http://www.businesswire.com/news/home/20151027006999/en/Westinghouse-Acquires-CBI-Stone-Webster>.

343. The DOD performs a FOCI evaluation for the MOX facility, but as this is a Part 70 license the NRC only performs an inimicality review. Letter from Kelly D. Trice, President, Shaw AREVA MOX Services, Request for Consent to Indirect Transfer of Control of Construction, to U.S. Nuclear Regulatory Comm’n, at 8 (Aug. 30, 2012), *available at* <http://pbadupws.nrc.gov/docs/ML1224/ML12243A498.pdf>; 10 C.F.R. § 70.31(d).

344. Letter from Tom Clements, *supra* note 231.

345. *Supra* §§ II.A, IV.B.

346. *Supra* § II.A.

347. *Westinghouse Expects Contracts for 12 Chinese Nuclear Reactors: CEO*, PLATTS (Feb. 12, 2015), <https://www.platts.com/latest-news/electric-power/newyork/westinghouse-expects-contracts-for-12-chinese-21987641>.

348. *Supra* note 40.

349. *See, e.g., supra* notes 28-37.

maintain the fleet or replace aging reactors with new ones will come partly from abroad.³⁵⁰ The industry itself believes that foreign participation enhances safety.³⁵¹ Given the relatively uniform rejection of an ownership-as-bar model by other agencies within the government, the Commission would be exercising its expertise it allows the FOCD provision to be read *as a whole*, without a flat ownership bar, and considers such factors as those covered by DSS or CFIUS.

2. National Security Can be Protected in Indirect Ownership Situations

The NRC Staff is concerned that a prohibition on only direct ownership would render the term “owned” superfluous in the AEA.³⁵² However, there is a practical difference between direct and indirect ownership of nuclear power plants when it comes to national security interests, as highlighted in *Dole*. In *Dole*, the Supreme Court began its analysis with the statement: “A basic tenet of American corporate law is that the corporation and its shareholders are distinct entities.”³⁵³ The *Dole* Court made clear that a “corporate parent which owns the shares of a subsidiary does not, for that reason alone, own or have legal title to the assets of the subsidiary.”³⁵⁴ The Court then explained that increasing levels of separation increase the protections the subsidiary has against interference by the parent: “it follows with even greater force, the parent does not own or have legal title to the subsidiaries of the subsidiary.”³⁵⁵ The Court explicitly noted that “government instrumentalities established as juridical entities distinct and independent from their sovereign should normally be treated as such.”³⁵⁶ In addition, the Court has explained elsewhere that parents and subsidiaries share different liabilities, which do not comingle except in the case of veil-piercing.³⁵⁷

The corporate law tenants expressed in *Dole* have practical implications to the question at hand. It is not hard to imagine the potential threat to national security if citizens of an enemy power directly owned a nuclear facility in the United States. But it is true, à la *Dole*, that with increasing corporate separation between the parent and the subsidiary, there is increased distance from the owners to the assets of the subsidiary. With each corporate entity comes another set of board members and managers with fiduciary duties to the entity to not violate NRC regulations, and legal duties to the United States. In *South Texas*, the Licensing Board found relevant that the CEO of the applicant, Mark McBurnett, despite his company’s existence being funded by Toshiba, was structured in such a fashion that his daily and governance activities were not influenced by Toshiba.³⁵⁸ The Licensing Board reaffirmed the Commission principle that evidence of foreign

350. *Supra* § I.A.

351. NEI AUGUST 2013 COMMENTS, *supra* note 63, at 5.

352. SECY-14-0089, *supra* note 57, at 11.

353. *Dole*, 538 U.S. at 474.

354. *Id.* at 475 (citing 1 W. FLETCHER, CYCLOPEDIA OF THE LAW OF PRIVATE CORPORATIONS § 31 (rev. ed. 1999)).

355. *Id.*

356. *Id.* (quoting *First Nat’l City Bank v. Banco Para El Comercio Exterior de Cuba*, 462 U.S. 611, 626–27 (1983)) (internal quotation marks omitted).

357. *United States v. Bestfoods*, 524 U.S. 51, 61–63 (1998).

358. *Nuclear Innovation N. Am. LLC* (South Texas Project Units 3 & 4), LBP-14-3, 79 N.R.C. 267, 303 (2014).

direction can be discerned by a look at the corporate structure.³⁵⁹ The Commission, in turn, endorsed the Licensing Board's factual and legal findings.³⁶⁰

If the Staff were to be worried about outside influence from a foreign owner on the CEO of an applicant, it is possible to see how such influence could be mitigated if the ability for the owner to direct the officer was mitigated by multiple corporate levels and other restrictions on influence or access. It is one thing to have a manager of a U.S. applicant constantly have to report quarterly to the foreign citizen, direct owner of her company. It is another for that manager to only have to answer to another U.S. citizen, who is the manager of another U.S. subsidiary, and leaves that manager insulated from the type of direct foreign influence that could come from direct ownership. Voting trust arrangements of the type discussed by DSS could potentially help in this regard.³⁶¹ Perhaps no level of corporate separation could mitigate the FOCD or inimicality concerns that come with an enemy nation having indirect, even if only ephemeral, access to U.S. nuclear assets. But certainly such separation could help prevent a fear of undue foreign direction that comes from U.S. allies such as Britain or Japan indirectly owning a nuclear facility.

The Staff should also consider how levels of corporate separation can increase nuclear safety and national security. For example, a NAP could require not only that the applicant is composed of U.S. citizens, but that the applicant's U.S. parent is composed entirely of U.S. citizens. In addition to the applicant having a Nuclear Security Committee to prevent access to closely held information or nuclear materials, the U.S. parent could have a Nuclear Security Oversight Committee, to ensure that the foreign parent's influence on the applicant's operations are appropriately limited. The Staff could also require that the U.S. parent have other significant operations in the United States outside of the contested application, so as to not exist as just a shell company. The most likely future applicants will be large companies with a host of U.S. operations, such as Toshiba or EDF, with strong governance practices and much to lose if they were to try to violate NRC regulations. In this way, the hybrid approach allows for creative and practical NAP measures and increased corporate and regulatory flexibility.

V. CONCLUSION

As the global energy economy becomes increasingly fluid, foreign ownership of U.S. nuclear production and utilization facilities becomes an unavoidable reality. Furthermore, the global agenda to stop climate change must include a strong effort to develop new nuclear plants. However, the manner in which Congress and the Commission has thus far gone about regulating this shift has left many remaining issues in controversy.

As discussed above, the federal court precedent and the practical realities illustrated by other agencies' policies make clear that the NRC need not be bound to a limited construction of the "ownership" term as a total prohibition on 100%

359. *Id.* at 303 (citing *Commonwealth Edison Co.* (Zion Stations, Units 1 & 2), 4 A.E.C. 231, 233 (1969)).

360. *Nuclear Innovation N. Am. LLC* (South Texas Project Units 3 & 4), CLI-15-7, 81 N.R.C. 481, 494-96 (2015).

361. *Supra* note 3366.

or majority foreign indirect ownership of nuclear plants. Read in its totality, the AEA's foreign ownership, control, and domination provision provides a holistic approach for the Commission to expand, through rulemaking or clear guidance, global participation in the U.S. nuclear market while meeting its safety objective and promoting the domestic use of newer, safer nuclear technologies. Even if the NRC were to adopt a new approach to the FOCD provision, it does not guarantee that 100% indirectly foreign owned power plants will become commonplace; it would simply allow the agency to engage with industry to find out if such arrangements could be feasible. A rigid view of the statutory prohibition should not be the default view, which would prevent the United States from participating in the global effort to improve nuclear safety and address climate change.

The authors' proposed approaches to interpreting the FOCD provision will allow for the United States to reach its alternative energy targets with sophisticated regulatory and corporate structuring while strengthening the AEA's overall aim to protect U.S. safety and national security. Foreign partners will be able to introduce new, safer nuclear technologies to the United States, and U.S.-led start-ups, such as TerraPower or Tri Alpha Energy, will not be prevented from getting significant foreign contributions to develop their prototypes.³⁶² Therefore, the Commission should reconsider the idea that foreign ownership cannot be "consistent with the NRC's usual practice, which prioritizes ensuring that *decisions* relating to safety at a licensed facility remain in the hands of U.S. citizens."³⁶³

362. *Supra* notes 35, 36.

363. *Nuclear Innovation N. Am. LLC*, CLI-15-7, 81 N.R.C. at 494-95 (emphasis added).