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Nuclear Terrorism: Statutory Shortcomings and Prosecutorial Opportunities

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Nuclear Terrorism: Statutory Shortcomings and Prosecutorial Opportunities

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I. INTRODUCTION

Following the September 11, 2001 attacks, the U.S. Department of Justice (DOJ) signaled a decisive shift toward counterterrorism as one of its top enforcement priorities.¹ Nearly twenty years later, the results of this shift present a mixed bag. While the post-9/11 landscape has undoubtedly bolstered federal efforts in investigating and prosecuting terrorists,² enforcement gaps still exist with regard to certain terrorist activities. One such activity is nuclear terrorism, defined as the use of or interference with a nuclear weapon, nuclear material, or a nuclear facility in order to further an act of terrorism.³ Despite relatively few federal nuclear terrorism prosecutions,⁴ nuclear terrorism is widely acknowledged as a critical security issue due to the singularly destructive power of nuclear weapons and the geopolitical dimension of the threat.⁵

1. See Adam Clymer, *How Sept. 11 Changed Goals of Justice Dept.*, NEW YORK TIMES (Feb. 28, 2002), <https://www.nytimes.com/2002/02/28/us/how-sept-11-changed-goals-of-justice-dept.html> (“Attorney General John Ashcroft has been testifying before Congress this week, arguing for substantial spending increases for counterterrorism programs. His appearances, in which he is seeking nearly \$2 billion in additional spending next year, are a vivid example of the changed priorities of many cabinet agencies in a post-Sept. 11 world . . .”). See also *Structural Changes to Enhance Counter-Terrorism Efforts*, U.S. DEPARTMENT OF JUSTICE ARCHIVES, <https://www.justice.gov/archive/911/counterterrorism.html> (last visited Feb. 2, 2021) (noting that “[s]ince 9/11, the FBI has undertaken the most significant transformation in its history . . . as part of its larger cultural shift to a threat-based, intelligence-driven, national security organization”).

2. See generally Christopher A. Shields et al., *Prosecuting Terrorism: Challenges in the Post-9/11 World*, 20 SOCIOLOGY OF CRIME, LAW AND DEVIANCE 173 (2015) (finding that since 9/11, U.S. terrorism prosecution and conviction rates have risen to unprecedented levels).

3. See Graham Allison, *Nuclear Terrorism Fact Sheet*, BELFER CENTER FOR SCIENCE AND INTERNATIONAL AFFAIRS (Apr. 2010), <https://www.belfercenter.org/publication/nuclear-terrorism-fact-sheet>. Title 18 of the U.S. Code refers to “nuclear material,” also known as fissile material, which is material capable of sustaining a nuclear fission chain reaction and subsequently being weaponized through a nuclear detonation. See 18 U.S.C. § 831(g)(1) (West); *Fissile Material*, U.S. NUCLEAR REGULATORY COMMISSION (last updated Aug. 25, 2020), <https://www.nrc.gov/reading-rm/basic-ref/glossary/fissile-material.html>.

4. See *infra* Section I.B.

5. See Sara Z. Kutchesfahani & Kelsey Davenport, *Why Countries Still Must Prioritize Action to Curb Nuclear Terrorism*, BULLETIN OF THE ATOMIC SCIENTISTS (Aug. 3, 2018), <https://thebulletin.org/2018/08/why-countries-still-must-prioritize-action-to-curb-nuclear-terrorism/>.

Thus far, however, efforts to address nuclear terrorism have faced a fundamental dilemma: while the importance of preventing nuclear terrorism is unquestioned, there has been limited opportunity or need to conduct federal prosecutions that hinge on nuclear terrorism charges. Nonetheless, there are compelling reasons why the DOJ should promulgate a clear framework for nuclear terrorism prosecutions. First, in a field in which the collapse of arms-reduction treaties and nuclear smuggling leads to constant uncertainty about the future of nonproliferation efforts, the DOJ should be prepared for all contingencies.⁶ Second, although laws such as the material support statutes are often relied upon as catch-all charges, there are situations unique to nuclear terrorism in which these laws might not be applicable.⁷ Third, the lessons learned from developing such a framework could assist prosecutors involved in other areas of national security law.

With these considerations in mind, this article proceeds in three parts. Part I first sets the legal landscape, introducing key statutory provisions and several federal nuclear terrorism-related prosecutions. Part II then evaluates the principal statutory shortcomings in the U.S. criminal system's current approach to nuclear terrorism. Finally, Part III argues that to address these shortcomings, rather than awaiting legislative amendment, the DOJ should craft a nuclear terrorism prosecution framework (NTPF). This proposed

6. See, e.g., Linton F. Brooks, *The End of Arms Control?*, 149 DAEDALUS 84, 84 (2020) (arguing that the failure of meaningful bilateral arms reduction efforts between the United States and Russia imperils the broader nuclear nonproliferation regime). While the U.S. government's approach to nuclear terrorism has historically focused on policy-centric measures, contingency preparedness demands a stronger, DOJ-centric approach to prosecutions of would-be nuclear terrorists. See, e.g., Justin Bresolin, *Fact Sheet: The Nunn-Lugar Cooperative Threat Reduction Program*, CENTER FOR ARMS CONTROL AND NON-PROLIFERATION (June 2014), <https://armscontrolcenter.org/fact-sheet-the-nunn-lugar-cooperative-threat-reduction-program/> (providing an overview of one of the principal policy-based initiatives in furtherance of counterproliferation, the Nunn-Lugar Cooperative Threat Reduction Program).

7. See 18 U.S.C. §§ 2339A–2339B (West). One notable situation in which these provisions might not be applicable is so-called “lone wolf” terrorism, a concern which may be relevant to the nuclear terrorism context. See Beau D. Barnes, *Confronting the One-Man Wolf Pack: Adapting Law Enforcement and Prosecution Responses to the Threat of Lone Wolf Terrorism*, 92 BOSTON UNIVERSITY LAW REVIEW 1613 (2012); Patrick D. Ellis, *Lone Wolf Terrorism and Weapons of Mass Destruction: An Examination of Capabilities and Countermeasures*, 26 TERRORISM AND POLITICAL VIOLENCE 211, 212 (2014) (“This article examines the kinds of WMD attacks lone wolves and autonomous cells could conduct and some of the countermeasures that might be used to stop them.”).

framework consists of two guidelines premised on the principles of *consistency* and *coordination* and several recommended courses of action.

II. THE LEGAL LANDSCAPE

Two sources of law, statutes and case law, shape the contours of federal nuclear terrorism prosecutions. However, these sources lend themselves to a somewhat disjointed understanding of nuclear terrorism law, given that judicial decisions have not meaningfully expanded upon the web of relevant statutory provisions. In order to promote the consistent prosecution of nuclear terrorism, therefore, it is worthwhile to properly situate these statutory and judicial authorities.

A. Statutory Provisions

Nine titles of the U.S. Code contain provisions that bear on nuclear security and nonproliferation issues.⁸ However, from a prosecutorial vantage, two titles are most relevant for the penalties they impose on unlawful nuclear activities: Titles 18 (Crimes and Criminal Procedure) and 42 (Public Health). The statutory schema that these titles establish centers on five provisions: 18 U.S.C. §§ 831, 832, 2332i, and 42 U.S.C. §§ 2077 and 2284 (the “nuclear threat provisions”).⁹ In part due to the disparate contexts in which these provisions were enacted, they overlap in motivations, subject areas, and penalties.¹⁰ In light of this discordance, two variables that offer some clarity are the *era of initial enactment* (pre-9/11 or post-9/11) and the *initial source of*

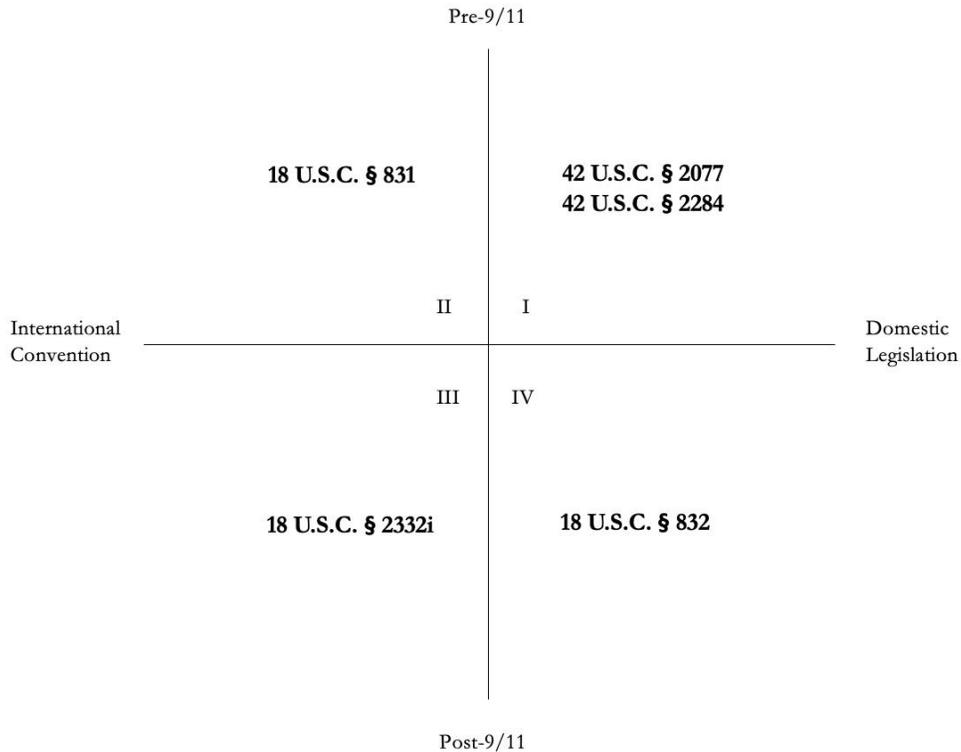
8. See *United States Code*, OFFICE OF THE LAW REVISION COUNSEL, <https://us-code.house.gov/> (last visited Feb. 2, 2021).

9. It is important to note, however, that a federal prosecutor would likely also bring charges under the host of criminal provisions that apply to “typical” terrorism prosecutions, including 18 U.S.C. §§ 2339A and 2339B (material support statutes) and 18 U.S.C. § 2332a (use of WMDs). Likewise, several other provisions bear on nuclear security issues, but are not featured in this article as “nuclear threat provisions” because they either acknowledge or are related to the five listed statutes.

10. See *infra* notes 11–19 and accompanying text. For further analysis of the security contexts that inspired these statutes, see JONATHAN MEDALLA, NUCLEAR TERRORISM: A BRIEF REVIEW OF THREATS AND RESPONSES, RL32595, CONG. RESCH. SERV. (last updated Feb. 10, 2005), <https://fas.org/sgp/crs/terror/RL32595.pdf>; John P. Holdren, 7 *Threats to Civil Nuclear-Energy Facilities*, in SCIENCE AND TECHNOLOGY TO COUNTER TERRORISM: PROCEEDINGS OF AN INDO-U.S. WORKSHOP 61 (Roddam Narasimha et al. eds, 2007).

motivation (international convention or domestic legislation). The following figure separates the provisions accordingly:

Figure 1. Nuclear Threat Provisions Analytical Binary



Quadrant I contains the pre-9/11 provisions inspired by domestic legislative imperatives, 42 U.S.C. §§ 2077 and 2284. Considering the security contexts in which §§ 2077 and 2284 were enacted, these provisions were early attempts to punish nuclear sabotage at a time when the U.S. government had not yet criminalized dangerous nuclear activities. The legislators that crafted these provisions operated in an early-Cold War security context and consequently articulated nuclear threats from a State-centric perspective.¹¹ First, §

11. See Reshmi Kazi, *The Correlation Between Non-State Actors and Weapons of Mass Destruction*, 10 CONNECTIONS, Fall 2011, at 1, 1 (highlighting various reasons for the earlier emphasis on State-centric threats rather than nonstate actor nuclear concerns, including limits

2077, enacted under the Atomic Energy Act of 1946 (AEA), prohibits the shipment, transfer, or possession of “special nuclear material.”¹² Violators intending to injure the United States or to secure an advantage to any foreign nation can be fined up to \$20,000 and imprisoned for life. § 2284, also enacted under the AEA, punishes the sabotage of nuclear facilities or fuel. This statute was enacted to punish interference with new and relatively unguarded nuclear power technologies.¹³ Consequently, it provides for penalties up to \$10,000 and twenty-years imprisonment, or if death results, life imprisonment.

Quadrant II’s 18 U.S.C. § 831, enacted over thirty years after the AEA, reflects the U.S. government’s evolving awareness that threats in the post-nuclear age arise from both State and non-State actors. § 831 was codified pursuant to the Convention on the Physical Protection of Nuclear Material, which provides for the international prevention, detection, and punishment of offenses relating to nuclear material.¹⁴ As such, § 831 criminalizes the intentional reception, possession, or use of any nuclear material or nuclear by-product material when these actions lead to (or are likely to lead to) death, serious bodily injury, or substantial damage to property or the environment.¹⁵ It also criminalizes the deprivation or cross-border movement of nuclear materials and provides for penalties up to twenty-years imprisonment, or if death results, life imprisonment.

to WMD accessibility and the view that 9/11 represented the crossing of a “threshold in terrorist constraint and lethality”). The focus of U.S. legislators on State-based threats in the early decades of the Cold War paralleled similar views among international practitioners, including those involved in the promulgation of the Treaty on the Nonproliferation of Nuclear Weapons (NPT). See Imrana Iqbal, *International Law of Nuclear Weapons Nonproliferation: Application to Non-State Actors*, 31 PACE INTERNATIONAL LAW REVIEW. 1, 4 (2018) (“Non-state actors do not figure in the NPT-based arrangement.”).

12. 42 U.S.C. § 2014 defines “special nuclear material” to include plutonium, enriched uranium, or either of their artificially created by-products.

13. Interestingly, the legislative history of the 1980 amendments to this law similarly points to broad concerns of safeguarding nuclear materials, particularly following the Three-Mile Island disaster. See S. REP. NO. 96-176, at 3 (1980), *reprinted in* 1980 U.S.C.C.A.N. 2216, 2219.

14. Convention on the Physical Protection of Nuclear Material, Mar. 3, 1980, T.I.A.S. No. 11,080, 1456 U.N.T.S. 101; see also *Convention on the Physical Protection of Nuclear Material*, IAEA, <https://www.iaea.org/publications/documents/conventions/convention-physical-protection-nuclear-material> (last visited Feb. 2, 2021).

15. See H.R. REP. NO. 97-624, at 5 (1982), 1982 U.S.C.C.A.N. 3229, 3233 (“It is not necessary that the actor know the actual composition of the nuclear material affected (as defined in proposed section 831(e)), but only that the material with which the actor is dealing is nuclear material.”).

Finally, Quadrants III and IV contain the provisions enacted following 9/11, 18 U.S.C. §§ 2332i and 832. These provisions reflect the U.S. government's shift in awareness that terrorist organizations pose particularly acute threats of nuclear violence in the modern era.¹⁶ Quadrant III's § 2332i was enacted in 2015 and codified the Convention on the Suppression of Acts of Nuclear Terrorism (Nuclear Terrorism Convention), which criminalizes international acts of nuclear terrorism and encourages police and judicial cooperation to prevent, investigate, and punish such acts.¹⁷ Under U.S. law, § 2332i incorporates several nuclear-related offenses into the "federal crime of terrorism" and provides for penalties up to \$2,000,000 and life imprisonment.¹⁸ Quadrant IV's § 832 was enacted as part of the Intelligence Reform and Terrorism Prevention Act of 2004.¹⁹ Enacted prior to § 2332i, this provision was an initial attempt to extend post-9/11 terrorism statutes and principles to the nuclear context. Consequently, it imposes a maximum punishment of twenty-years imprisonment on anyone who "willfully participates in or knowingly provides material support or resources (as defined in section 2339A) to a nuclear weapons program or other weapons of mass destruction program of a foreign terrorist power, or attempts or conspires to do so."

B. *Relevant Case Law and Indictments*

Over the past seventy years, the U.S. government has promulgated the aforementioned nuclear threat provisions, which today comprise the modern nuclear terrorism statutory schema. Federal prosecutors, however, have relatively infrequently relied on these provisions to charge alleged criminals. In parallel with Quadrant I, the earliest judicial opinions on nuclear theft and

16. See Matthew Bunn, *Reducing the Greatest Risks of Nuclear Theft & Terrorism*, DAEDALUS, Fall 2009, at 112, 112 ("In April 2009, President Obama warned that there was still a real danger that terrorists might get and use a nuclear bomb, calling that possibility 'the most immediate and extreme threat to global security.'").

17. 2005 International Convention for the Suppression of Acts of Nuclear Terrorism, Apr. 13, 2005, 2245 U.N.T.S. 89.

18. The Code of Federal Regulations defines terrorism as "the unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives." 28 C.F.R. § 0.85 (2010). Additionally, under § 2332 any offenses leading to a conviction of homicide can lead to the imposition of the death penalty.

19. See Brenda Sue Thornton & Ranganath Manthripragada, *Eleven New Tools for Prosecutors*, in INTELLIGENCE REFORM AND TERRORISM PREVENTION ACT OF 2004, at 18 (Jan Donovan ed., 2005), <https://www.justice.gov/sites/default/files/usao/legacy/2006/02/14/usab5304.pdf>.

espionage dealt with State-centric offenses. One noteworthy case is the prosecution of Klaus Fuchs, a German atomic scientist convicted of nuclear espionage.²⁰ Although he was sentenced to fourteen-years imprisonment in the United Kingdom, the information that Fuchs provided led to the 1951 trial of Julius and Ethel Rosenberg in the Southern District of New York for nuclear espionage and their eventual execution.²¹

In recent years, two types of criminal prosecutions have implicated the nuclear threat provisions. The first, mirroring the Fuchs situation, is when an individual engages in nuclear theft or espionage in order to benefit a State actor. Interestingly, these prosecutions often focus on Title 42 offenses and result in successful prosecutorial outcomes. For instance, in 2016, Szuhsiung Ho, a Chinese engineer, was convicted in the Eastern District of Tennessee under § 2077 for conspiracy to unlawfully engage in the production of special nuclear material to China's benefit.²²

The second type of prosecution involves the use of the nuclear threat provisions to charge individuals engaged in terrorist activities. On the whole, these prosecutions have been far less successful than the first type in leading to convictions under the nuclear threat provisions. For instance, Jamal al-Fadl, a former Al-Qaeda operative, defected in the early 2000s and subsequently divulged substantial information to the U.S. government about

20. See *Klaus Fuchs Arrested for Passing Atomic Bomb Information to Soviets*, HISTORY (last updated Jan. 30, 2020), <https://www.history.com/this-day-in-history/klaus-fuchs-arrested-for-passing-atomic-bomb-information-to-soviets> (noting that Fuchs, a German-born British scientist who helped develop the atomic bomb, was arrested for passing top-secret information to the Soviet Union).

21. See *id.*; see also *United States v. Rosenberg*, 109 F. Supp. 108 (S.D.N.Y. 1953) (denying the Rosenbergs' motion for a reduction in the previously imposed sentence of death for espionage). Interestingly, the Rosenbergs were not charged with treason because at the time of the trial, the United States was not formally at war with the Soviet Union. See HISTORY, *supra* note 20.

22. See *United States v. Szuhsiung*, 2016 WL 7435900, at *1 (E.D. Tenn. Dec. 21, 2016); see also *United States of America v. Sihai Cheng*, 2016 WL 413077 (D. Mass. Feb. 1, 2016) (involving the use of § 831 to increase the applicable points under the Sentencing Guidelines). Another recent case involving Iranian sanctions imposed under the International Emergency Economic Powers Act is the Northern District of Illinois prosecution of Saeed Valadbaigi, who was indicted for unlawful nuclear-related exports to Iran. See U.S. Attorney's Office, Northern District of Illinois, *Newly Unsealed Federal Indictment Charges Iranian Businessman with Illegally Exporting Nuclear Nonproliferation-Controlled Materials from Illinois*, U.S. DEPARTMENT OF JUSTICE (June 21, 2018), <https://www.justice.gov/usao-ndil/pr/newly-unsealed-federal-indictment-charges-iranian-businessman-illegally-exporting-0>.

Osama bin Laden's nuclear designs.²³ Despite this testimony, which implicated numerous high-profile individuals such as Mohamed Loay Bayazid, no convictions under any of the nuclear threat provisions resulted.²⁴ Similarly, in the federal prosecution of José Padilla, another Al-Qaeda associate, although Attorney General John Ashcroft determined that Padilla was directly implicated in a plot to explode a “dirty” nuclear bomb, he was never formally charged for this crime.²⁵ However, a recent case that alludes to the potential of the nuclear threat provisions, particularly § 2332i, is *United States v. Crawford*, which involved an attempted terrorist attack using an x-ray device.²⁶ Although the court did not reach the merits on the applicability of § 2332i, it suggested that in criminalizing new types of conduct under the federal crime of terrorism, Congress intended for the provision to be robust in its application.²⁷

Three lessons emerge from these recent cases. First, thus far, no cases following the enactment of § 2332i have used the nuclear threat provisions to convict an alleged terrorist. This stands in marked contrast to the second lesson—that recent nuclear espionage cases charged under 42 U.S.C. §§ 2077 and 2284 have frequently led to successful prosecutorial outcomes.²⁸ Third, although there is limited judicial experience with the post-9/11 provisions, the legislative history and available case law suggest that they are intended to be robust enforcement tools. As discussed below, these lessons are valuable in crafting a strategy to effectively prosecute future nuclear terrorism cases.

23. See *United States of America v. Usama bin Laden*, Indictment S(9) 98 Cr. 1023 (LBS) (S.D.N.Y. 1998), http://www.nonproliferation.org/wp-content/uploads/2016/05/us_indictment_against_bin_laden.pdf. For a comprehensive overview of al-Fadl's testimony, see Kimberly McCloud & Matthew Osborne, *WMD Terrorism and Bin Laden*, MIDDLEBURY INSTITUTE OF INTERNATIONAL STUDIES (July 14, 2008), <https://nonproliferation.org/wmd-terrorism-and-osama-bin-laden/> (describing al-Fadl as a “star witness” in detailing “his efforts to assist Bin Laden in an attempt to acquire uranium, presumably for the development of nuclear weapons, from a source in Khartoum, Sudan, in late 1993 or early 1994”).

24. See McCloud & Osborne, *supra* note 23.

25. See *Padilla v. Rumsfeld*, 352 F.3d 695 (2d Cir. 2003).

26. *United States v. Crawford*, 714 F. App'x 27, 29 (2d Cir. 2017), *cert. denied*, 138 S. Ct. 1275, 200 L. Ed. 2d 426 (2018).

27. See *id.* at 31.

28. See *supra* note 22 and accompanying text.

III. STATUTORY SHORTCOMINGS IN NUCLEAR TERRORISM PROSECUTIONS

This Part builds on the overview of the legal landscape by evaluating two specific shortcomings of U.S. criminal law vis-à-vis nuclear terrorism: inflexibility and undercoverage. On inflexibility, nuclear energy is a constantly advancing field, and the activities that the U.S. government has criminalized do not fully reflect the current state of play. For instance, § 831 does not define “nuclear material” to include new materials such as thorium that can sustain weaponizable nuclear reactions.²⁹ Moreover, the law does not address dual-use technologies (DUTs) that might assist in constructing a nuclear weapon; rather, it only prohibits exchanges of nuclear materials.³⁰ A related inflexibility concern is the “definitional challenge” of nuclear terrorism.³¹ While each nuclear threat provision has the potential to apply to nuclear terrorism, only § 2332i explicitly incorporates its punished offenses into the federal crime of terrorism. Consequently, prosecutors may be uncertain about the extent to which the other provisions apply to nuclear terrorism cases.³²

29. See *Thorium*, WORLD NUCLEAR ASSOCIATION (last updated Nov. 2020), <https://www.world-nuclear.org/information-library/current-and-future-generation/thorium.aspx>; Zachary Hawari, *Thorium’s Glow: Lighting the Way for Safe, Cheap Energy Production*, 41 WILLIAM & MARY ENVIRONMENTAL LAW AND POLICY REVIEW 295, 295 (2016) (“Liquid fluoride thorium reactors (LFTR) could be safe, clean, and cheap without facilitating the development of nuclear weapons. Even so, civilian nuclear power struggles in an uphill battle for public acceptance. Nuclear proponents must address the legacy of Fukushima and Chernobyl.”); see also James A. Lake et al., *Next Generation Nuclear Power*, SCIENTIFIC AMERICAN (Jan. 26, 2009), <https://www.scientificamerican.com/article/next-generation-nuclear/> (noting the need for “[n]ew fuel cycles . . . to be designed to guard against proliferation”).

30. See 18 U.S.C. § 831(a); see also GOVERNANCE OF DUAL-USE TECHNOLOGIES: THEORY AND PRACTICE, AM. ACADEMY ARTS & SCIENCES 8–60 (Elisa D. Harris ed., 2016) (highlighting the inchoate regulatory framework that governs “dual-use technologies” such as laser enrichment that are suitable for both civil and military nuclear-related purposes).

31. See generally Alex P. Schmid, *The Definition of Terrorism*, in THE ROUTLEDGE HANDBOOK OF TERRORISM RESEARCH 39, 39 (Alex P. Schmid ed., 2011) (“More than 70 years after the League of Nations first proposed (in 1937) a legal definition of terrorism, such an agreement is still elusive.”). For more on ambiguity related to the federal crime of terrorism in the United States, see Sudha Setty, *What’s in a Name? How Nations Define Terrorism Ten Years After 9/11*, 33 UNIVERSITY OF PENNSYLVANIA JOURNAL OF INTERNATIONAL LAW 1, 18–31 (2011).

32. This uncertainty is particularly pronounced with the Title 42 nuclear threat provisions, as they are facially geared toward public health and welfare considerations and therefore exist in certain respects outside of the federal prosecutor’s traditional domain.

Along with inflexibility, the nuclear threat provisions face an undercoverage problem in their focus on the “back-end” nuclear terrorism risk (i.e., detonation of nuclear weapons or attack of nuclear facilities) at the expense of the “front-end” risk.³³ Front-end risk, addressed *in passim* in 18 U.S.C. § 831 and 42 U.S.C. § 2077, comprises the preparatory steps that enable a would-be terrorist to carry out a nuclear attack. However, §§ 831 and 2077 both formulate nuclear exchanges in highly transactional terms and do not necessarily cover actors that may unwittingly be involved in a nuclear terrorist’s attack, for instance, freight or shipping operators.³⁴ These cross-border operators are a particular risk because these provisions require a *mens rea* of knowledge for successful prosecution, rather than the negligence *mens rea* that such actors would likely have in transporting containers holding nuclear weapons into the United States.³⁵

The undercoverage problem also extends to the U.S. government’s incomplete adherence to its Nuclear Terrorism Convention obligations. While § 2332i codifies the Convention’s provisions on defining nuclear terrorism offenses and prosecutorial commitments, it does not meaningfully advance the U.S. domestic legal regime with regard to cross-border information sharing and cooperation.³⁶ Beyond the risk of forsaking valuable intelligence

33. The full scope of the back-end and front-end risks of nuclear terrorism is reflected in various calls to adopt a “layered approach.” See Michael Levi, ON NUCLEAR TERRORISM 7 (2007) (“Imagine a scenario in which, at each step of its plot, a terrorist group has a 90 percent chance of success. Then a plot requiring ten steps will have less than a 40 percent chance of succeeding, since its overall odds of success are reduced with each step. . . . [This] . . . is called a ‘layered defense.’”).

34. For an overview of the potential threat of nuclear weapons being “snuck” into the United States via shipping containers, see J.M. Phelps, *We Could Have Shipping Containers Full of Foreign Nukes in Our Ports and Not Know It*, AMERICAN THINKER (Feb. 27, 2018) https://www.americanthinker.com/blog/2018/02/we_could_have_shipping_containers_full_of_foreign_nukes_in_our_ports_and_not_know_it.html.

35. See 18 U.S.C. §§ 831(a)(1)–(7). Note also that numerous nuclear weapons contractors have been found to violate shipping guidelines for dangerous materials, pointing to an enforcement deficit in this area of the law. See Patrick Malone, *Nuclear Weapons Contractors Repeatedly Violate Shipping Rules for Dangerous Materials*, CENTER FOR PUBLIC INTEGRITY (Aug. 1, 2017), <https://apps.publicintegrity.org/nuclear-negligence/shipping-violations/>. This threat is further exacerbated by the discordance between the U.S. Code’s definitions of “special nuclear materials” under Title 42 and “nuclear materials” under Title 18.

36. See Nuclear Terrorism Convention, *supra* note 17, arts. 7, 9, 11, 13; see also Paige Willan, *The Convention on the Suppression of Acts of Nuclear Terrorism: An Old Solution to a New Problem*, 39 GEORGETOWN JOURNAL OF INTERNATIONAL LAW 527, 540 (2008) (“Implementation of the NTC will also not significantly improve the legal regime in the United States with respect to nuclear terrorism.”).

from foreign counterparts, these omissions entail an “expressive injury” in that the U.S. government’s failure to adhere to its obligations undermines both the efficacy of and broader commitment to the international effort against nuclear terrorism.³⁷

IV. CRAFTING A NUCLEAR TERRORISM PROSECUTORIAL FRAMEWORK

In light of the aforementioned statutory shortcomings, this Part acknowledges the need to bolster the U.S. criminal system’s current approach to nuclear terrorism cases. However, given the limited likelihood of direct legislative amendment, a more promising approach is to rely on prosecution-driven action via the NTPF, which is premised on the dual principles of *consistency* and *coordination*.

A. Legislative Amendment: Not the Way Forward

One conceivable course of action to address the gaps in the existing nuclear terrorism statutory schema is legislative amendment. Although this could involve directly filling gaps in the law (e.g., adding “thorium” to nuclear materials under 18 U.S.C. § 831(g)(1)), a more promising route is to provide for the Secretary of Energy to maintain a list of criminalized materials or exchanges.³⁸ Additionally, Congress could consider retrofitting the material support statutes to the exigencies of nuclear proliferation (e.g., criminalizing the *receipt* of nuclear aid from “foreign terrorist powers,” rather than merely criminalizing the *provision* of such aid to these powers under § 832(a)). Finally, the United States could apply lessons from foreign criminal codes and

37. There is substantial literature on the value of adherence to international obligations and the political and legal fallout from failure to do so. *See, e.g.*, Beth A. Simmons, *Compliance with International Agreements*, 1 ANNUAL REVIEW OF POLITICAL SCIENCE 75 (1998). For a similar discussion in the nuclear security context, see Steven E. Miller, *Proliferation, Disarmament and the Future of the Non-Proliferation Treaty*, in NUCLEAR PROLIFERATION AND INTERNATIONAL SECURITY 50–51 (Morten Bremer Maerli & Sverre Lodgaard eds., 2007) (noting that the belief among nonnuclear-weapon States that the five nuclear-weapon States have failed to abide to their disarmament obligations undermines the broader efficacy of the nuclear nonproliferation regime).

38. Such a provision could structurally parallel the process through which the Secretary of State designates an organization as a foreign terrorist organization pursuant to 18 U.S.C. § 2339B.

expand its own laws to cover more nuclear terrorism-related activities.³⁹ However, while legislative change is the most concrete method to amend the nuclear threat provisions, it is unlikely that enough political support could be generated to directly address their shortcomings.⁴⁰

B. NTPF: Consistency and Coordination

Given the practical challenges of legislative amendment, this article advocates for a strengthened nuclear terrorism framework that relies on prosecution-driven action. This proposed framework, the NTPF, would be incorporated into the *Justice Manual's* (JM) national security section.⁴¹ Currently, JM 9-90.440 references two laws that lie at the intersection of nuclear energy and national security law: the AEA and 18 U.S.C. § 831. Along with referencing the remaining nuclear threat provisions, the NTPF would consist of two guidelines:

1. In conjunction with the Internal Security Section of the Criminal Division, the Assistant Attorney General (AAG) of the National Security Division (NSD) should promote measures that clarify the full scope of available charging options in matters of national security implicating nuclear weapons, materials, or facilities and that emphasize the importance of consistently charging the most serious, readily approvable offenses.

2. The AAG of the NSD should encourage coordination in the prosecutions of actors accused of using or interfering with nuclear weapons, materials, or facilities in the furtherance of an act of terror. This coordination

39. For instance, the United States could consider emulating Canada's recent laws criminalizing contraventions of the 2004 International Atomic Energy Agency's (IAEA) Code of Conduct on the Safety and Security of Radioactive Sources and establishing regulations for maintaining "nuclear information security." See SARA Z. KUTCHESFAHANI ET AL., *THE NUCLEAR SECURITY SUMMITS: AN OVERVIEW OF STATE ACTIONS TO CURB NUCLEAR TERRORISM 2010–2016*, at 28 (2018), https://www.armscontrol.org/sites/default/files/files/Reports/NSS_Report2018_digital.pdf.

40. For commentary on Congress' continued inability to pass legislation, even on traditionally bipartisan matters such as nuclear security, see Jeffrey D. Grynviski, *Congress Used to Pass Bipartisan Legislation—Will it Ever Again?*, *THE CONVERSATION* (Jan. 4, 2019), <https://theconversation.com/congress-used-to-pass-bipartisan-legislation-will-it-ever-again-107134>.

41. The JM is a reference for United States Attorneys and other employees of the DOJ responsible for the prosecution of violations of federal law. See U.S. DEPARTMENT OF JUSTICE, *JUSTICE MANUAL* (2018). JM 9-90.000 contains provisions on national security. See also *National Security*, U.S. DEPARTMENT OF JUSTICE, <https://www.justice.gov/jm/jm-9-90000-national-security> (last visited Feb. 2, 2021).

should extend to both intra-agency efforts and international efforts not already provided for by law.

A recommended course of action to promote the first guideline is for the NSD AAG to distribute a memorandum that emphasizes the importance of contingency preparedness in nuclear terrorism prosecutions and reiterates the nuclear threat provisions and the penalties they impose. While such a memorandum could take several forms, articulating the full scope of charges and the importance of charging all applicable offenses would certainly help serve the goals of consistency and effective deterrence.⁴²

A second recommendation to promote consistency is for the NSD to make a concerted effort to bring future nuclear terrorism cases before a single federal district. Pursuant to the AAG's discretion outlined in JM 9-90.100, the AAG may assign criminal cases involving national security within the NSD rather than leaving "prosecution of national security cases [to] . . . the USAO [U.S. Attorney's Office] in the district where venue lies." Therefore, the AAG might consider assigning nuclear terrorism prosecutions to the Southern District of New York (S.D.N.Y.) due to both prosecutorial and judicial experience with past terrorism prosecutions as well as the S.D.N.Y.'s "related-case rule."⁴³ This case-assignment rule allows a judge to take on a case if a moving party claims that it is sufficiently related to another of the judge's cases. Although this rule gained notoriety in the stop-and-frisk context,⁴⁴ provided that S.D.N.Y. prosecutors comply with the now-modified requirements for establishing relatedness, they could bring future nuclear terrorism prosecutions before a single judge who has some degree of fluency in the subject. In so doing, this judge could help develop a jurisprudence that clarifies the applicability of the nuclear threat provisions in the nuclear

42. For a useful template for this type of memorandum, see Memorandum from Attorney General John Ashcroft to All Federal Prosecutors: Department Policy Concerning Charging Criminal Offenses, Disposition of Charges, and Sentencing (Sept. 22, 2003), https://www.justice.gov/archive/opa/pr/2003/September/03_ag_516.htm.

43. Even if the AAG chooses not to exercise this discretion, the Southern District of New York would still be a wise choice to develop a judge-centric jurisprudence, as a substantial number of terrorism prosecutions have been tried in this district over the past three decades. For more on the related-case rule, see Benjamin Weiser & Joseph Goldstein, *Federal Court Alters Rules on Judge Assignments*, NEW YORK TIMES (Dec. 23, 2013), <https://www.nytimes.com/2013/12/24/nyregion/federal-court-alters-rules-on-judge-assignments.html> ("The rule is commonly used to send cases involving similar facts to a single judge in the interest of efficiency and economy, but it has also evoked concerns about judge-shopping.").

44. See generally Katherine Macfarlane, *The Danger of Nonrandom Case Assignment: How the S.D.N.Y.'s 'Related Cases' Rule Has Shaped the Evolution of Stop-and-Frisk Law*, 19 MICHIGAN JOURNAL OF RACE & LAW 199, 205 (2014).

terrorism context and thus offers flexibility in using these provisions as charging options.

In order to encourage the second guideline's coordination objective, one recommendation is to enhance intra-agency coordination on nuclear terrorism intelligence. JM 9-90.4400 already discusses required communications between the DOJ and the Nuclear Regulatory Commission (a Department of Energy agency) on AEA prosecutions.⁴⁵ However, the DOJ could benefit from enhanced intelligence coordination with several other federal agencies, including the Central Intelligence Agency, the Federal Bureau of Investigation, the National Security Agency, the Defense Intelligence Agency, and the National Reconnaissance Office. While the intelligence and law-enforcement equities that bear on typical DOJ file-search and document-review requests would likely also arise in nuclear terrorism investigations, the sensitive and technical evidence unique to this subject counsel toward developing robust and sustained intra-agency networks.⁴⁶ Likewise, the DOJ would benefit from closer relationships with agencies that provide expert analysis on nuclear intelligence, including the State Department and the Treasury Department's Bureau of Tobacco, Alcohol, and Firearms.⁴⁷ These networks could take several forms, including intra-agency memoranda of understanding or reliance on existing channels such as joint terrorism task forces (JTTF).⁴⁸

Finally, the second guideline's focus on international coordination reiterates the importance of the U.S. government's full adherence to its Nuclear Terrorism Convention obligations, particularly its Article 13 commitments to cross-border information sharing. While legislative amendment is not a practical avenue to address this undercoverage problem, the DOJ can still take meaningful steps to encourage cross-border evidence and intelligence

45. The AEA provides that prosecutions shall be commenced by the Attorney General after they have notified the Nuclear Regulatory Commission. *See* 42 U.S.C. § 2271(c).

46. *See* JM 9-90.210, *Contacts with the Intelligence Community Regarding Criminal Investigations or Prosecutions*, <https://www.justice.gov/jm/jm-9-90000-national-security#9-90.210> (last visited Dec. 30, 2020). The scope of "sensitive" information in the nuclear security and terrorism contexts is unsurprisingly broad. *See* IAEA, IMPLEMENTING GUIDE: SECURITY OF NUCLEAR INFORMATION (IAEA Nuclear Security Series No. 23-G, 2015), <https://www-pub.iaea.org/MTCD/Publications/PDF/Pub1677web-32045715.pdf>.

47. *See* ADVISORY PANEL ON OVERSEAS SECURITY, REPORT OF THE SECRETARY OF STATE'S ADVISORY PANEL ON OVERSEAS SECURITY (1985), <https://fas.org/irp/threat/in-man/>.

48. A potentially relevant JTTF-inspired initiative is the Joint Counterterrorism Assessment Team's Intelligence Guide for First Responders. *See* JCAT: *Intelligence Guide for First Responders*, OFFICE OF THE DIRECTOR OF NATIONAL INTELLIGENCE., https://www.dni.gov/nctc/jcat/jcat_ctguide/intel_guide.html (last visited Feb. 2, 2021).

sharing on nuclear proliferation matters.⁴⁹ One such step is for the NSD AAG to promulgate a set of guidelines that describes when each USAO's National/International Security Coordinator should share nuclear information with an intelligence agency or a foreign counterpart.⁵⁰

Relatedly, the NSD could develop practices promoting nuclear intelligence sharing that rely on established channels of communication with foreign counterparts. For instance, the cooperative efforts of U.S. and Kenyan authorities that led to the detention of Wadiah El-Hage in connection with the bombings of U.S. embassies in East Africa could certainly expand to future investigations of individuals suspected of nuclear terrorism-related activities.⁵¹ As of 2020, the DOJ's Office of Overseas Prosecutorial Development Assistance and Training operates approximately fifty international programs through which the DOJ works with foreign counterparts to combat transnational crimes and terrorism.⁵² Reliance on these training programs and more informal modes of outreach would help bring the U.S. government further in line with its international obligations and undoubtedly bolster cross-border prevention of nuclear terrorism.

V. CONCLUSION

For nearly three decades, most world leaders have shared the view that a terrorist organization's acquisition of nuclear weapons poses the most "immediate and extreme threat to global security."⁵³ Despite this threat, the U.S.

49. Federal prosecutors are vested with expansive investigatory and intelligence-sharing powers, particularly as these powers relate to national security matters. As a result, DOJ protocol provides for a systematic exercise of this authority in each USAO, including through the establishment of a national/international security coordinator position in each Office. See JM 9-90.050, *National/International Security Coordinators in United States Attorneys' Offices*, <https://www.justice.gov/jm/jm-9-90000-national-security#9-90.050> (last visited Feb. 2, 2021).

50. For a template to promulgate such a set of guidelines, see Memorandum from the Attorney General to the Deputy Attorney General et al.: *Coordination of Information Relating to Terrorism* (Apr. 11, 2002), <https://oig.justice.gov/reports/plus/e0507/app7.htm>.

51. See *In re Terrorist Bombings of U.S. Embassies in E. Afr.* (Fourth Amendment Challenges), 552 F.3d 157 (2d Cir. 2008).

52. See *Office of Overseas Prosecutorial Development Assistance and Training (OPDAT)*, U.S. DEPARTMENT OF JUSTICE, <https://www.justice.gov/criminal-opdat> (last visited Feb. 2, 2021).

53. See President Barack Obama, Remarks at Hradcany Square, Prague, Czech Republic (Apr. 5, 2009), <https://obamawhitehouse.archives.gov/the-press-office/remarks->

criminal system still faces considerable statutory shortcomings in enforcing its nuclear terrorism laws. In light of these shortcomings, this article has suggested guidelines and several courses of action that could undergird an enhanced NTPF. Moving forward, the lessons learned from crafting such a framework can be applied to other areas of national security law, including biological and chemical terrorism, genetic engineering, and cyberterrorism. Perhaps the most important lesson, however, is the significance of prosecution-driven action. While robust prosecutorial practices often supplement effective statutory schemes, in many situations they can serve as workarounds to less-than-effective schemes. Consequently, prosecutors should remain mindful of their ability to engage in policymaking and advocacy in order to support the U.S. government's broader enforcement and security objectives.

president-barack-obama-prague-delivered (Prague speech on nuclear weapons); *see also* JOSEPH CIRINCIONE, BOMB SCARE: THE HISTORY & FUTURE OF NUCLEAR WEAPONS 139 (2008) (“There are three problems, however, that are more difficult to resolve. . . . [These] most difficult nuclear threats [are] terrorism, technology, and new weapon states.”).