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Understanding the novel nonproliferation approach in the U.S.-Saudi civil-nuclear agreement

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ABSTRACT

The new civil-nuclear cooperation agreement between the United States and Saudi Arabia generated a significant amount of attention, particularly among nonproliferation experts outside of government. The U.S.-Saudi accord, often referred to as the U.S.-KSA "123" agreement after the section of the Atomic Energy Act which grants the U.S. government to negotiate treaty-level international agreements to export U.S. nuclear technology to a partner, does not include certain nonproliferation protections seen in past arrangements. For example, Saudi Arabia did not forswear its right to pursue uranium enrichment or reprocessing of spent fuel in the text of the agreement, nor did the Kingdom agree to implement the International Atomic Energy Agency (IAEA) Additional Protocol (AP), a verification measure designed to detect attempts to divert nuclear material and technology for use in a clandestine weapons program. However, the U.S. government sought to lower the risks of sensitive nuclear technology proliferation and a hypothetical secret weapons program through a number of novel approaches. The U.S. carved out a nearly exclusive export relationship with Saudi Arabia to prevent proliferation via nuclear trade with other partners, sequencing nuclear industry activities in implementing the agreement, and requiring a joint study with challenging conditions before any enrichment or reprocessing is deemed viable. The approaches in the agreement must also be considered in the context of enforcement tools provided to the U.S. government under domestic law, which are summarized within the paper, and will further aid in implementing nonproliferation elements within the agreement. Finally, the agreement also establishes a bilateral safeguards agreement, modeled after the AP with similar aims in mind, to create additional verification requirements for any sensitive nuclear facilities on Saudi territory. The novel approach is not without risks, as tailored approaches may create new implementation challenges, but provides the U.S. government with a variety of tools to ensure U.S. nonproliferation policy goals are adequately met if the agreement is implemented accordingly.

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ACRONYMS & DEFINITIONS

Acronym/Term	Definition
IAEA	International Atomic Energy Agency
AP	Additional Protocol
KSA	Kingdom of Saudi Arabia
123 agreement	a civilian nuclear cooperation agreement, named after the section of the Atomic Energy Act that grants authority to negotiate such deals
UAE	United Arab Emirates
NSG	Nuclear Suppliers Group
BSA	bilateral safeguards agreement
CSA	comprehensive safeguards agreement
NPAS	Nuclear Proliferation Assessment Statement
JECS	Joint Enrichment and Conversion Study
JCPOA	Joint Comprehensive Plan of Action
ABACC	Argentina, Brazil, and the Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials
NPT	Treaty on the Non-Proliferation of Nuclear Weapons

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1. INTRODUCTION

Many lawmakers and non-government observers expressed concern in December 2025 when press articles announced the United States (U.S.) and the Kingdom of Saudi Arabia (KSA) civilian nuclear cooperation agreement (commonly called a "123 agreement" after the section of the Atomic Energy Act that grants authority to negotiate such deals) may not include key nonproliferation restrictions considered standard in similar deals. Other experts based concerns with the deal on broader instability in the region given ongoing conflict between Iran and the U.S. and its allies. The agreement marks the first time any country committed to helping KSA construct its long-desired nuclear power industry.

Public reporting and analysis noted the lack of a "gold standard" in the Saudi agreement. Under a gold standard approach, the U.S. partner forswears enrichment and reprocessing and implements an intrusive verification regime via an "Additional Protocol" (AP) to its safeguards agreement with the International Atomic Energy Agency (IAEA). The absence of the gold standard is the primary criticism of the nonproliferation elements in the Saudi 123 agreement. Yet, no two 123 agreements are the same and a review of past agreements shows a wide variance in meeting what critics are calling as a U.S. "standard."

Not surprisingly, the content of the gold standard agreement may not be the only, or even most important, rationale for opponents of civil-nuclear cooperation in the Middle East. The canonical example of a gold standard agreement, the U.S.-United Arab Emirates (UAE) 123 agreement, received strong opposition upon its announcement by several of the same critics of the U.S.-KSA agreement [1], mostly on the grounds of distrust of the UAE's export control system and broader interest in nuclear energy in the region. Senator Markey, for example, initially called for a requirement that any other nuclear suppliers for the UAE would not undercut the nonproliferation standard the U.S. set with a new agreement [1]. While U.S. diplomats pursued an attempt to strengthen worldwide controls within the Nuclear Suppliers Group (NSG), the voluntary coordinating body fell short of strong guidelines that would push other nuclear suppliers to adopt a similar standard in their own exports [2]. The same opponents later touted the UAE agreement as strong enough to set a precedent for all future 123 agreements after approval became inevitable [3].

The U.S. frequently tailors 123 agreements to balance commercial and national security priorities and strives to maintain a higher nonproliferation standard than any other nuclear supplier. Often, this requires compromise with a negotiating partner on nuclear technology trade in order to gain acceptance of U.S. nonproliferation restrictions. Unlike most nuclear exporters, U.S. nonproliferation restrictions are contained within statute, not just policy, though U.S. administrations traditionally pursue additional nonproliferation conditions as a matter of policy. Negotiations with Saudi Arabia were no different, and the exact compromises made to achieve U.S. nonproliferation priorities deserve a close review.

The text of the KSA agreement is now available for examination [4]. The U.S.-Saudi 123 agreement contains a few notable features distinct from past agreements as part of a tailored nonproliferation approach versus a "boilerplate" method. For example, the two parties negotiated a bilateral safeguards arrangement (BSA) with the knowledge and support of the IAEA that augments KSA's comprehensive safeguards agreement (CSA), but is not the AP. The KSA 123 agreement also requires a joint study on sensitive fuel cycle activities such as uranium conversion and enrichment, which nonproliferation experts have called for in the past, to allow U.S. administrations to make informed decisions on these vital questions but does not allow for the transfer of sensitive fuel cycle technologies absent a further, future agreement.

Additionally, the U.S. positioned itself as the exclusive nuclear supplier for Saudi Arabia absent a separate written agreement to allow other parties into cooperation, a novel approach for modern 123 agreements. As 123 agreements like any other negotiation are the product of compromise, U.S. negotiators likely sought to overcome KSA resistance to certain "standard" nonproliferation provisions through the utilization of new language, authorities, and tools. The agreement the Trump administration transmitted to Congress on August 27, 2026, was not just a focus of the current president; multiple administrations negotiated with Riyadh over the past two decades. Congress and other stakeholders will examine the agreement on the basis of the planned implementation procedures, the nonproliferation enforcement mechanisms, found in Table 2-1, Saudi Arabia's nonproliferation track record, and the regional context. Upon entry into force, the agreement will likely last for the next several presidential administrations. I examine the administration's nonproliferation approach in the KSA 123 agreement, with the context of existing U.S. nonproliferation law and policy, as well as other important implementation considerations below.

2. ELEMENTS OF THE U.S. NONPROLIFERATION STRATEGY IN THE AGREEMENT

The U.S. nonproliferation strategy in the KSA 123 agreement is best understood as a layered approach rather than reliance on a single, categorical restriction. The agreement does not adopt the "gold standard" model in full, but it does contain several mutually reinforcing provisions intended to preserve U.S. influence over the development of Saudi Arabia's civil-nuclear program. These include a qualified-supplier requirement that limits third-party participation, practical delays associated with nuclear power construction and fuel demand, restrictions on the transfer of sensitive nuclear technologies, a joint study process before any future enrichment or conversion cooperation, and the continued applicability of U.S. statutory enforcement tools. The following sections examine each element in turn and consider how these provisions may function in practice.

2.1. An Exclusive Commercial Partnership to Prevent Proliferation

The first, and primary, nonproliferation restriction under the 123 agreement is Saudi Arabia's consent to only partner with a "qualified supplier" – an entity that the U.S. and Saudi Arabia agree to include in the cooperation in writing, or is already authorized by the Nuclear Regulatory Commission or Department of Energy – for nuclear power reactors, nuclear reactor fuel, and "all other aspects of the nuclear fuel cycle in the Kingdom of Saudi Arabia" [4]. The included Nuclear Proliferation Assessment Statement (NPAS), a legally mandated report assessing the nonproliferation elements of the 123 agreement describes the qualified supplier restriction in Article 2, Paragraph 3 as "an unprecedented commercial provision unique to the proposed Agreement." [4]

Based on the construction of this provision, it appears U.S. negotiators intended to create a "veto" power for the U.S. government over Saudi pursuit of nuclear cooperation with third countries, including those who may be willing to provide sensitive nuclear technology that the U.S. intends to restrict. Given allegations that the U.S. itself may provide enrichment technology to Saudi Arabia [5], outside experts may wonder why the qualified supplier provision is important.

Historically, U.S. civil-nuclear partners who attempted to pursue a clandestine weapons program did so as a result of expanded *civilian* partnerships with other countries, perhaps most notably Taiwan's attempts to purchase heavy water reactors from Canada [6] and West Germany in the 1960s [7], and attempts to acquire a reprocessing facility from the Netherlands in the 1970s [8]. In a more recent case, Iraq's Osirak reactor – destroyed in a 1981 Israeli airstrike – was initially the product of a Soviet-supplied research reactor in 1959, though France provided reactor technology and highly enriched uranium leading to greater proliferation concerns in the 1970s.

On a plain reading of the agreement, any attempts by Saudi Arabia to gain the means to develop a nuclear weapon through cooperation with non-U.S. partners (which could include other trade

and security partners like Russia, China, or Pakistan) would require U.S. written agreement. The U.S. may insist that any other partners adhere to high nonproliferation standards, including meeting additional safeguards verification requirements, prior to permitting cooperation with new partners. If still unsatisfied, the U.S. could prevent third party partnerships altogether under the terms of the agreement.

2.2. The Long Road to Building a Nuclear Industry

A second nonproliferation constraint is the timeline associated with nuclear construction projects, as well as the 30-year term of the agreement itself—both features common to most civil-nuclear cooperation agreements. The 123 agreement is the culmination of a long negotiating process, to be sure: by some measures, the U.S.-KSA agreement has been under negotiation for nearly 20 years. However, the completion of the agreement is still just the beginning of the civil-nuclear relationship. The 123 agreement permits, but does not mandate, the U.S. government to license exports of nuclear technology and materials on any timeline.

As an illustrative example, consider the Emirati nuclear power facility at Barakah. Construction for the first reactor at the Barakah Nuclear Energy Plant began three years after the U.S.-UAE 123 agreement entered into force. Construction of the first reactor was completed in 2018, nearly a decade after the 123 agreement [9]. Barakah Unit 1 began full-power operations to generate electricity in December 2020 [10]. While the reactors planned to be built in Saudi Arabia are not identical to those at Barakah, they are similar large nuclear power plant designs.

Building nuclear facilities is not a fast process anywhere. The newest U.S. large nuclear power plant reactors, Vogtle 3 and 4, took approximately 15 years to build (which was seven years longer than originally planned) [11]. The arrival of the reactors in Saudi Arabia is important for nonproliferation as well, as there is no rational demand for fuel – or sensitive fuel cycle technologies to produce or dispose of spent fuel - until the reactors are operating. Uranium mining, under the U.S.-Saudi critical minerals framework of November 2025, may be the immediate priority in advance of reactor construction, given the rapid follow-up to secure additional agreements and two-way investment following the Crown Prince's visit to Washington, D.C. [12], and the longer timeline associated with finalizing and submitted the 123 agreement for Congressional review.

In all likelihood, the U.S. will provide an initial fuel load for rumored [13] Westinghouse AP1000 reactors in Saudi Arabia. The uranium will come from the expanding U.S. commercial enrichment capability or will be produced through reliance upon the international fuel market [14], which Westinghouse will fabricate into reactor fuel. Westinghouse operates a fuel fabrication plant in Sweden and the United Kingdom to provide fuel for its global reactor fleet [15]. All fuel that is a product of U.S.-origin technology, design, or material is subject to U.S. laws and regulations, including terms stipulated within 123 agreements. This system represents a significant capital expenditure for facility construction and operation by Westinghouse over many decades, including substantial investment by the U.S. government. At a minimum, reactor operations in Saudi Arabia will likely follow the 123 agreement entry into force more than a decade later. Utilities operating the AP1000 traditionally follow an 18-24 month operating fuel cycles. The parties can use the time between entry into force and the first reactor refueling to determine the best path ahead for a secure

fuel supply, but observers should note there is no practical demand for *in situ* enrichment during those 10-12 years.

2.3. Delaying Enrichment via Joint Study

A third key nonproliferation element concerns the *absence* of certain technology transfers. The agreement does not explicitly provide for the transfer of sensitive nuclear technologies (conversion, enrichment, or reprocessing activities) including a prohibition on providing "restricted data," as stipulated in Section 123(a) of the Atomic Energy Act, absent formal U.S. permission in the future. The agreement leaves open the possibility of Saudi enrichment in the future, following a two-year "Joint Enrichment and Conversion Study" (JECS). According to the NPAS, Saudi statements regarding fuel cycle activities are "consistent with its long-term goal of localizing all aspects of its domestic energy production and maximizing the commercial value of its natural resources."

Following the JECS, both countries are required to strike a future agreement to develop an enrichment facility after the study, including considerations such as the technologies involved, the commercial market, economic viability of a facility in Saudi Arabia, proliferation risks, the ability of the IAEA to safeguard the facility, and each party's national interests. The JECS requirement also signals a middle option which could further forestall enrichment on Saudi territory, requiring which could include demonstrating relevant technologies in the U.S. before any deployment to Saudi Arabia. Uranium purity will be capped at five percent unless the parties agree to enrich up to 20% following an additional joint study on High-Assay Low-Enriched Uranium which is not time-bound.

Any new facility involved with uranium conversion, enrichment, fuel fabrication, reprocessing, or associated research and development activities (all of which arguably are "sensitive" fuel cycle activities) must occur on sites which meet additional verification requirements stipulated in a Bilateral Safeguards Agreement or "BSA," with additional procedures and likely further engagement with the IAEA (described in further detail in Section II below).

Nonproliferation experts will note the lack of a forthright prohibition on any enrichment and reprocessing as a grievous error, particularly in the context of press allegations regarding Saudi proliferation intentions. However, such a unilateral concession is extremely rare among U.S. civil-nuclear partners. Outside of U.S. agreements with the United Arab Emirates and Taiwan, no other 123 agreement contains such a restriction. In modern agreements, the U.S. sought different levels of restrictions or discouragement via alternatives to an outright prohibition, similar to that pursued here.

Countries which seek enrichment or other sensitive fuel cycle capabilities are unlikely to relinquish this policy interest merely due to a 123 agreement. The same is true for South Korea today, and other partners whom the U.S. may watch carefully for proliferation potential in the future. No agreement can prevent a bargaining partner from asking for more in a negotiation; it is the burden of U.S. negotiators to achieve critical nonproliferation priorities in an agreement while seeking to delay, partially accommodate, and/or ultimately reshape a partner's desire for enrichment and reprocessing.

For example, the U.S. pursued flexible treatment of enrichment and reprocessing in Obama-era 123 agreement negotiations after concluding the UAE "gold standard" agreement in negotiating a new accord with South Korea. The U.S. opted to delay providing sensitive fuel cycle technology to South Korea, despite the ally's insistence, by agreeing to a decade-long Joint Fuel Cycle Study to examine pyro processing techniques to manage spent fuel and radioactive waste accumulation. The agreement itself required reciprocal consent rights over any retransfers or reprocessing and enrichment of material [16]. The 2014 U.S.-Vietnam negotiations also concluded with an agreement devoid of a prohibition on enrichment and reprocessing technologies. Vietnam offered non-legally binding language in the agreement's preamble affirming "the intent to rely on" the international fuel market rather than acquire enrichment and reprocessing technology, disallowed "unless the Parties agree" otherwise. Even the UAE, reacting to the Obama administration's successful negotiation of the Joint Comprehensive Plan of Action (JCPOA), asserted a similar right to enrich, after forswearing such activity merely six years prior (though UAE did not request a formal re-opening of the 123 agreement) [17].

Constant U.S. vigilance, diplomatic pressure, and attenuation of a partner's security risks are required to diminish the motivation for acquiring enrichment. The U.S. historically maintained a sufficient diplomatic and intelligence capability to deter, detect, and reverse civil-nuclear partners' proliferation attempts throughout the Cold War. The same will be required moving forward.

2.4. Legal Barriers and Enforcement Tools

Nonproliferation experts are correct to express concern over the provision of enrichment technology. Luckily, the U.S. government historically agrees, and the text of a 123 agreement is not the sole impediment to gaining enrichment technology from the U.S., or as described in recent news articles, creating a "pathway to enrichment." U.S. nonproliferation law creates a series of barriers (sometimes overlapping) to narrow the provision of enrichment technology, summarized below in Table 2-1.

Provision of **law** (and/or section of 123 *agreement*)	Requirement
Section 123(a)(7) [18] **of the Atomic Energy Act** *Article 6 and 7(2-4)*	Requires a partner nation to promise not to reprocess or enrich U.S.-supplied nuclear material without explicit (written) prior approval from the U.S. (which is not provided in the agreement). Saudi Arabia will only have U.S.-supplied nuclear material as a result of the qualified supplier requirements.
Article 7(5)	HEU restriction: The agreement may permit enrichment to 19.9% conditionally, following the separate joint study and U.S. consent, but no U.S. supplied material can be enriched (in Saudi Arabia or anywhere else) beyond 20%.
Section 131(a)(1-4) [19]	Requires that a proposed subsequent arrangement is not "inimical to the common defense and security" when granting an allowance for activity otherwise identified in the base agreement as requiring prior consent (including enrichment and reprocessing in the 123 agreement), and concurrence from both the Secretaries of State and Defense.
Section 402(b) of the Nuclear Non-Proliferation Act of 1978	No "major critical component" (any component part or group of parts essential to the operation of an enrichment, reprocessing, or heavy water facility) shall be exported under any agreement for cooperation unless such agreement designates such components as items to be exported. The 123 agreement does not designate any components for export.
Section 127 [20]	Prohibitions on special nuclear material, production facilities, and sensitive nuclear technologies, providing peaceful uses restrictions, prohibitions on retransfer, reprocessing, and exports.
Section 144 [21]	Restricts any transfer of Restricted Data, which would be functionally required to provide U.S. enrichment technology, absent a separate 123 agreement (or in this case, amendment to the existing agreement since such transfer is not authorized).

Table 2-1. Summary of Legal Tools Associated with Sensitive Fuel Cycle Technology

Finally, violations of U.S. law in this area creates significant impediments to other areas of the bilateral relationship, encouraging strict adherence by Saudi Arabia. Former State Department nonproliferation lawyer Newell Highsmith lays out several available export control and sanctions tools. Two sets of tools stand out. A U.S. partner that imports or exports reprocessing or enrichment equipment and fails to comply with IAEA safeguards or materially violates its 123 agreement forfeits U.S. military and economic assistance under the Foreign Assistance Act. The President may waive these sanctions if terminating assistance "would be seriously prejudicial to the achievement of U.S. nonproliferation objectives or otherwise jeopardize the common defense and security." However, if a country were to receive, detonate, or seek and receive plans for a nuclear explosive device, a bevy of mandatory sanctions prevent a wide array of bilateral cooperation, with no possibility of

waiver absent a separate act of Congress [22].

The balance between national security and commercial interests necessitates compromise in 123 negotiations, as is the case for all arms control and nonproliferation agreements. Frequently, the major nonproliferation benefit of 123 agreements is the otherwise unavailable new opening it creates to bring other U.S. nonproliferation tools to bear. As former Assistant Secretary of State Tom Countryman asserted to the Senate Committee on Foreign Relations in 2014, "An approach that would be more restrictive or that would seek to make 123 agreements not only meet high standards but to be uniform we fear would be self-defeating. On the particular issue of requiring a binding legal commitment from every country, **we do believe that many countries would prefer not to pursue such an agreement rather than to agree to renounce forever a theoretical right**" [23].[1]

[1]Emphasis added.

3. RISK (AND REWARD?): SUBSTITUTING THE ADDITIONAL PROTOCOL

A major exception noted by nonproliferation experts is the fact that the U.S. did not require Saudi Arabia's adoption of the AP as a condition of the 123 agreement. The AP is an agreement between a country with a nuclear program and the IAEA, which is designed to provide the IAEA with additional verification tools that go beyond the CSA. The IAEA and members states developed the AP in the 1990s following North Korea's proliferation. While the CSA provides significant tools to address known nuclear material, technology, and facilities, it failed to provide verification authorities for the IAEA to detect undeclared nuclear material, facilities, and activities and report the unlawful programs to the Board of Governors. As of December 2025, 144 states and Euratom have an AP in force [24].

Negotiators did not ignore the need for verification beyond the CSA. The U.S. and Saudi Arabia concluded a Bilateral Safeguards Agreement, or "BSA," to "give the agency additional verification and monitoring authorizations" per IAEA Director General Grossi [25]. U.S. negotiators appear to have mimicked model AP text in constructing the BSA, creating additional verification authorities for the IAEA, knowing that Saudi Arabia's steadfast refusal to adopt the AP did not abate proliferation concerns among U.S. experts who saw the need to achieve a nonproliferation standard beyond that which is required within the Atomic Energy Act.

According to the terms of the BSA, any sensitive nuclear fuel cycle activities, including conversion, enrichment, fuel fabrication, reprocessing, or related research and development, must take place on sites subject to additional IAEA verification [4]. Any information that Saudi Arabia shared with the IAEA for the purposes of facilitating verification must also be shared with the U.S., improving the U.S. government's baseline knowledge of the Saudi nuclear program and helping inform any U.S. and IAEA cooperation should illicit activities be detected. The locations of nuclear equipment and material, its movement, and use in nuclear industry operations must all be explained regularly to the IAEA. Saudi Arabia must facilitate short notice inspections to nuclear facilities should questions arise, with the IAEA determining the appropriate frequency of access, with both the U.S. and Saudi Arabia permitted to consult with the agency to rectify remaining questions after inspections.

The BSA must enter into force prior to any nuclear trade occurring. Given the qualified supplier restriction, most if not all facilities initially constructed as part of the Saudi civil-nuclear program will be by U.S. companies. That provides the U.S. government with unique, early insights into the overall program, further strengthening the knowledge base required to make nonproliferation judgments in the future regarding possible illicit activities.

However, experts may still see at least three remaining concerns with the BSA approach. First, the BSA grants IAEA authority for inspections at "covered sites" which are to be specified by Saudi Arabia. While those covered sites must include all sensitive nuclear fuel cycle activities under the

terms of the agreement, the possibility that a clandestine nuclear site is created that is not reported to the IAEA remains a possibility. If the scope of "covered sites" leaves possible verification gaps with the IAEA, this will require further diligence by the U.S. intelligence community and those of other nations, as well as a willingness to provide further information to the IAEA.

U.S. policy makers are not without inspection options in the absence of an AP to detect illicit nuclear activities. Under Article 72 of the IAEA-KSA safeguards agreement, the agency may make "special inspections" if information made available by Saudi Arabia is not adequate to ensure non-diversion "of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices [26]. The existing CSA provides rights to the agency to visit locations beyond those specified in the agreement, with the risk to Saudi Arabia that a refusal to facilitate such inspections may involve Board action, such as a resolution demanding Riyadh's action or even communication to the U.N. Security Council.

In addition to the CSA special inspection, the U.S. and Saudi Arabia may also choose to develop specific procedures for managing inspection activity at covered sites to provide greater confidence to the Board and broader international community that any diversion of material or technology from these sites will be detected. Under the 123 agreement, the frequency of access to covered sites will be determined by the Agency. Clarification regarding Saudi Arabia's intentions for declaring covered sites to the IAEA for the purpose of implementing BSA verification on any sensitive fuel cycle facilities, and openness to a high frequency of inspections will enable greater confidence in the agreement's approach.

Second, the link between the detection of illicit activity under the BSA and additional international consequences is uncertain. Under the IAEA statute, the Board of Governors is obligated to notify the U.N. Security Council when a member state breaks its safeguards agreement or AP [27]. This reporting may not immediately reverse illegal activities (consider the North Korea example), but the pressure of a Security Council referral is frequently used to force attempts to resolve proliferation activities through diplomatic agreement [28]. Clarifying that this link to the UNSC exists, or establishing it as a matter of course for the IAEA in implementing the BSA, is a stipulation the Board may seek to elucidate upon receiving the BSA for consideration [25].

Third, the BSA is not the AP, even if it is "good enough" for the immediate U.S. nonproliferation interests. The U.S. traditionally promoted universalization of the AP as a nonproliferation policy goal – a template for the U.S. to seek as a standard for all countries to adopt. Future erstwhile U.S. partners may seek to reject the AP in the early days of a negotiation, following the Saudi example, and secure a BSA instead. U.S. policy makers will need to make decisions on which of various heightened verification approaches is appropriate for a given case when a potential partner rejects the AP. Despite the possible impact on global norms, the simulacrum protocol appears to be close enough to satisfy IAEA Director General Grossi as an initial matter, who stated "What is important for me is that I will have the capacity to do what I need to do in the country to verify that there is no diversion of nuclear material or undeclared activity" [29].

The agency has familiarity with tailored verification approaches, partnering with Argentina, Brazil, and the Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials (ABACC). The alternative approach, designed to create a higher level of confidence than a standard CSA (and accepted as accomplishing this within NSG negotiations) [30] among states who reject adoption

of the AP on the grounds of costs, sovereignty, commercial espionage concerns, or to create geopolitical leverage for unrelated negotiations. Yet, ABACC does not permit IAEA inspections, unlike the BSA, which may create a concern regarding the agency's insights into undeclared activities. How much the BSA (and other nonproliferation provisions) can approximate the AP's ability to assure the agency regarding the absence of undeclared nuclear material and activities deserves further elucidation, and implementation of the BSA will be critical to attaining a similar level of confidence.

Diplomatic experts will note that any exception to the AP, however justified in a specific civil-nuclear relationship, diminishes a U.S. goal of universalizing the agreement across all countries. Nonproliferation experts will worry the absence of intrusive IAEA verification could create future proliferation problems that the IAEA sought to avoid with the AP, with North Korea's breakout in the 1990s looming large as recent, relevant history. While negotiators may be able to address both concerns and justify the BSA on the grounds that (1) it was the best deal Saudi Arabia could accept and (2) still goes beyond the nonproliferation requirements established in law, this issue will likely be a continued area of interest for Congress, who will want to understand how the IAEA and U.S. government are resourced to accomplish what may be a stringent, but boutique, verification approach. The baseline data the AP can develop for a large nuclear industry, can help inform intelligence and policy actors. The value of that baseline data is particularly important when a nuclear program grows to include fuel-cycle activities ranging from mining to enrichment and reprocessing. Perhaps more important, is having a recipient of U.S. nuclear technology agree in advance of constructing such a program that IAEA inspectors possess legal rights to complementary access to collect physical data that may confirm allegations that are otherwise made on the basis of information that may not be shareable to the IAEA or a broader audience. With these legal rights, U.S. policy makers may queue the IAEA to address uncertainty when the moment arrives. The fact that the inspection rights are already in place builds confidence that any diversion of material or technology for a civilian nuclear program to a clandestine military one will be detected, therefore deterring such activity in the first place. Importantly, IAEA member states know that's how the AP is supposed to work in conjunction with government intelligence and policy apparatuses.

Under the current agreement, U.S. policy makers can argue that important elements of the AP appear in the BSA. If the parties commit to implement the BSA in a comparable fashion to how the AP is implemented, not just by the IAEA, but by members like the United States who work closely with the IAEA to ensure verification is conducted with high standards, and demonstrate this verification to the IAEA Board, the BSA may provide adequate additional safeguards measures to increase confidence that any Saudi attempt to build a clandestine program outside of declared civilian facilities will be detected. If this standard is not achieved initially, U.S. diplomats may still assert that the current agreement is only a starting point for continued U.S. advocacy with the Kingdom that the nuclear program should, as it expands, come under an AP to set a high standard in the region for any states with nuclear programs, including for Iran.

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4. CONCLUSION: HOW TO MAKE IT WORK

The U.S. nonproliferation strategy established in the recently concluded 123 agreement with Saudi Arabia is not the first tailored approach in civil-nuclear cooperation between the U.S. and another party, and it certainly will not be the last. Global desire for nuclear power is high today, due to surging electricity demand, clean power goals, and hope that nuclear energy will be safer, cheaper, and easier to deploy. These dynamics force U.S. negotiators to develop innovative approaches to securing key nonproliferation aims [31].

Successful implementation of the agreement's nonproliferation requirements will require a high level of diligence from the U.S. and the IAEA. U.S. policy makers must consider adequate resourcing and expertise to implement the Saudi agreement. As evidenced by the 123 agreement package, significant export control capacity building will be necessary for Saudi Arabia, who is currently not a member of four important, voluntary multilateral export control and nonproliferation regimes.[1] As was the case during Congressional consideration of the UAE agreement, ensuring Saudi Arabia's export control system will adequately protect any shared U.S. nuclear technology will be important, and the likely focus of U.S. implementation diplomacy.

The IAEA will also need adequate resources for what may develop into a substantial verification mission in the coming years. Currently, the only clear plans for nuclear facilities in Saudi Arabia are Westinghouse AP1000 reactors. If Saudi Arabia begins mining uranium, and pursues other fuel cycle activities, the verification requirements will increase. In the absence of an AP, the IAEA may decide more frequent inspection visits to covered sites are necessary. The IAEA Board of Governors should consider these requirements when reviewing the BSA for approval and consider how to use a resolution to clarify its role in implementing the agreement.

Finally, the regional security environment is a clear driver of proliferation risks in Saudi Arabia and among neighbors. The nonproliferation provisions here should be judged based on the regional context. The U.S. would support similar restrictions in a U.S.-Iran deal if one were possible today, and continued U.S. maintenance of a policy to prevent Iran from ever acquiring a nuclear weapon is essential to eliminating the threat of a Saudi bomb [32].

As a general matter, 123 agreements are designed to constrain what a country perceives are sovereign rights under Article IV of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), the "inalienable right of all parties to the Treaty to develop research, production and use of nuclear energy for peaceful purposes." Iranian officials regularly assert a "right to enrich" in defense of their enrichment program, born out of a previous clandestine weapons program. However, the provision continues, ". . . without discrimination and in conformity with Articles I and II of this Treaty" – the nonproliferation and disarmament pillars of the NPT.

[1] The Missile Technology Control Regime, Australia Group, Wassenaar Arrangement, and Nuclear Suppliers Group (though Saudi Arabia joining the NSG would be contingent on current member support).

The new U.S.-Saudi 123 agreement is limited in what it allows Saudi Arabia to do with a new civil-nuclear program, which is a common and consistent U.S. nonproliferation strategy objective in negotiating civil-nuclear accords. It does so by weaving different nonproliferation approaches together, both across the elements of the 123 agreement framework, as well as by leveraging statutory tools. Observers should grade the agreement on the merits of this nonproliferation lattice; not in how it compares to agreements with different countries in a different era.

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