

Nonissue: Cuba's Mothballed Nuclear Power Plant

A readily negotiable issue threatens to aggravate U.S.-Cuban relations and scuttle worldwide nuclear cooperation agreements worked out over many years

By Jonathan Benjamin-Alvarado

In the wake of the pope's visit to Cuba in January of 1998, President Clinton took two small steps to ease sanctions against the island, and there seemed to be some hope he might take others—although limited in scope.

But the history of Cuban-American relations over the past thirty years is replete with examples of openings being ruined by unexpected irritants which could have been resolved through negotiations had anyone in Washington wished to try. One such irritant which has been elevated into a capital case by anti-Castro politicians is Cuba's longstanding attempt to build a nuclear power plant with Russian assistance. Such a project is scarcely unusual for an energy-poor country at Cuba's level of development, yet these politicians have sensationalized the issue in hopes of erecting another obstacle to improved relations.

The Center for International Policy has taken two delegations to the construction site and we now publish this analysis by Jonathan Benjamin-Alvarado, a senior research analyst at the University of Georgia's Center for International Trade and Security. It is a specialized issue, but one that has been monopolized by politicians who have neither the expertise to understand it nor the political objectivity to deal with it effectively.

Since the mid-1930s, Cuba has attempted to deal with its chronic energy dependence. Energy development has always been viewed as an integral part of providing a modern life to the Cuban population. Having little fossil fuel to power its electrical grid, Cuba has relied almost exclusively on imported oil. By the late 1940s Cuba had formed a government agency to explore the peaceful exploitation of nuclear energy. In 1958, Cuba contracted American Foundry Works and Mitchell Engineering of Great Britain to construct a nuclear reactor in Cuba. Those plans were disrupted by the Cuban Revolution.

Throughout the 1960s and 1970s Cuba enjoyed the benefits of a preferential trade arrangement with the Soviet

Union. It got oil credits at below-world-market prices and in excess of its actual demand. It sold this excess at world market prices for much-needed hard currency. Cuba could explore the nuclear option with little risk because of this oil deal with the Soviets.

Beginning in the late 1970s Cuba sought to develop a nuclear energy capability with Soviet assistance. Named the "Project of the Century" by Fidel Castro, Cuba envisioned a network of nuclear reactors across the island. The completion of the project would alleviate Cuba's oil dependence once and for all and would provide a shining example of the success of the Cuban development model. As a by-product of the peaceful exploitation of nuclear energy, Cuba would also create a cadre of well-trained nuclear scientists, engineers and technicians.

Cuba would reap political benefits as well. It would lessen its energy dependence on the Soviet Union and develop a technological expertise in an area of considerable prestige and sophistication. It had the option of a turnkey project from the Russians. It chose a more costly and time-consuming technical assistance program that would provide training for nuclear engineers and where the Soviet Union and Cuba would be equal partners in the construction. While politically more appealing, this option was marked by inefficiency, delays and a lack of experience on the part of the Russians building nuclear reactors in the Western Hemisphere. But even though the memory of the Chernobyl accident tempered Cuba's decision, it remained determined to complete the Juragua facility.

By the early 1990s, despite one setback after another, the facility was more than 50 percent complete. At this time, Cuba worried whether a significantly weaker Soviet Union could continue financing. It also faced a constant stream of criticisms of the integrity of the construction at the site. These claims included allegations of shoddy workmanship, lax record-keeping and accounting, and questionable inspection regimes.

All told, these allegations painted a picture of an accident waiting to happen and significantly increased concerns in the region about which direction the wind currents would take the fallout from a nuclear accident. In 1991, in a round of congressional hearings, witnesses blasted the project and labeled the reactor a potential "Cuban Chernobyl." The southeastern United States, some witnesses claimed, would be blanketed with nuclear fallout as far north as Washington, D.C., and Cuba would be rendered a wasteland for all eternity. The Cubans responded to these allegations by stating that technical data would unequivocally prove the integrity and concern for safety on the part of the Cubans.

The international nonproliferation community was also expressing concerns about the Cuban program on the heels of allegations that there was a more nefarious element to the Cuban program, that of a nuclear-weapons development program. At that time Cuba was not a signatory to the Nuclear Nonproliferation Treaty (NPT), nor to the regional nuclear-weapon-free zone accord, the Treaty of Tlatelolco. Cuba maintained its opposition to these agreements on the basis that they were discriminatory, that not all Latin American states were signatories, and that it faced continued U.S. hostility.

International concerns were further exacerbated by the apparent lack of spent fuel storage and disposal plans, and the absence of a stand-alone nuclear regulatory body for inspections, accounting and materials control. Nevertheless, Cuba held important positions within the U.N.'s International Atomic Energy Agency (IAEA) and pointed to these close ties as evidence of its commitment to upholding international nonproliferation norms and standards.

1992 suspension

In announcing a suspension of the project in 1992, Castro stated that Russia was now demanding \$200 million for the instrumentation and control systems.¹ In fact, Russia itself did not have the hard currency being demanded by the Siemens company of Germany for the installation of these systems. Cuba and Russia were seeking to replicate the success of a similar facility at Loviisa, Finland where Russian design was married to German instrumentation and control to produce a top-flight

reactor. Although Cuba was provided with \$30 million in 1993 for mothballing the Juragua site, the situation changed little until April, 1998 when Cuba and Russia announced a renewed effort to build the plant.

In the interim, Cuba sought in vain to attract potential Western suitors for a joint venture. A feasibility study contracted by Cuba and Brazil from Ansaldo SpA of Italy placed the cost to complete construction at around \$800 million. This appears to be a conservative figure. When one considers that there may have to be back-fitting and replacement of some systems, the costs could be significantly higher, as much as \$1.2 billion. Cuba's poor credit rating probably precludes its ability to borrow the money for the project.

Furthermore, it is difficult to conceive of an investor willing to spend more than a billion dollars on a questionable venture with little possibility of return. Russia's reluctance to invest any more money in the project may be related to its own efforts to commercialize its domestic energy sector. As of 1997, it was estimated that the Russians have only been able to collect 1.5 cents on the dollar of energy generated and sold to domestic customers. At this point it is difficult to conceive of an investment plan for the project that would not either amount to charity or transfer ownership to the investor.

In the interim, Cuba has continued developing its legal and bureaucratic structure to comply with international standards and has signed but not yet ratified the Treaty of Tlatelolco. It has established a new regulatory structure and is presently reconfiguring the legal basis of its nuclear-related activities to comply with the requirements of the Tlatelolco accord, especially those related to inventory of nuclear materials, reporting procedures and inspections by international agencies. This has been made possible because of the

cooperation with international agencies and the commitment of the government to uphold international standards in this area.

Even if Cuba were conceivably to find a means to advance the project, it will be required to subject its facility to international full-scope safeguards, significant operational and safety inspections, and numerous internationally monitored tests before operation could begin. Added to this is the thirty-six-month minimum of construction time to complete the reactor. Even if the present Russian-Cuban negotiations succeed and funds were found for start-up, the plant could not go on line until at least 2001. Cuba's "Project of the Century" has become a project for the next.

Russian renewal

Although Russian support faltered early in the decade, it revived in 1998 as the Russian Federation's atomic energy commission, Minatom, laid plans to export nuclear materials and technologies worth \$4 billion by the year 2000. This includes the export of uranium to the United States, the financing of construction of the Kundankulam nuclear station in India, a nuclear deal with Egypt, construction of the nuclear station at Bushehr, Iran and the possible signing of a contract for the construction of another 1,000-megawatt unit and two 440-megawatt units. Russia sought both to attract new buyers and renew old acquaintances.

In this context, Russia also wants to restore its trade with Cuba. After a series of high-level meetings in 1997, Russia and Cuba negotiated an oil-for-sugar swap and the expansion of Russian cooperation in nickel mining and nuclear energy. Furthermore, Evgeny Reshetnikov, deputy minister of the Russian ministry of atomic energy, described the Cuban nuclear plant project as mutually advantageous: "On the one hand Cuba is in desperate need of self-sufficiency in electrical supply, and on the other, operation of the reactor will be the only way for Russia to get from Cuba the enormous debts it owes our country."²

This resumption by Russia came after the failure, noted above, of Cuban attempts to attract partners such as Fiat, Ansaldo and Siemens. Their decision not to go ahead may have been prompted by the lack of hard currency and both Russia and Cuba's poor credit rating in the world financial markets. Given that situation, the Russians proposed installing Russian-built instrumentation and control systems in the Juragua units.³

That, apparently, is one of the goals of the negotiations undertaken by the Russians and Cubans in April, 1998. Rather than an international consortium, the idea now is to set up a Russian-Cuban joint venture. Funding remains a real problem, but the successful completion of a reactor in Cuba would be good advertising for Russia's nuclear industry. It would demonstrate to other potential buyers of Russian nuclear reactors that Moscow can deliver the goods. But whether Moscow is willing to invest a billion dollars in such a public-relations gambit remains to be seen.

Helms-Burton and monster creation

After the downing of the Brothers to the Rescue planes off the Cuban coast, the pending Helms-Burton legislation swept through both houses of Congress and was quickly and triumphantly signed into law by President Clinton. Even if previous Cuban-American missions had violated Cuban air space, the Cuban choice of a military response was inappropriate and ultimately regrettable for a number of reasons. The Clinton administration had been opposed to the Helms-Burton legislation. But with the shoot-down, it felt compelled to sign.

Helms-Burton violates international law, is extraterritorial and has caused problems with our closest friends and trading partners. It also reflects a growing trend in American foreign policy—the demonization of foreign-policy adversaries.

As the German peace researcher Kinka Gerke has put it:

Monster-creation . . . serves to simplify complex foreign-policy situations . . . it helps in formulating clear foreign policy lines, in providing moral justification for U.S. foreign policy, and in mobilizing public support . . . As a result, interest groups that revive old enemy images either by creating new monsters or restoring old ones that were gathering dust off-stage are getting a disproportionate hearing.⁴

This is the essence of what has happened to Cuba with the February 1996 downing serving as the catalyst.

Prominent in the Helms-Burton legislation are provisions to limit Cuba's ability to complete construction of the nuclear reactors at Juragua. Specifically, these

provisions aim at deterring Cuba's would-be nuclear partners, most notably the Russian Federation, from helping the Cubans in any meaningful way. Helms-Burton calls for the "withholding from assistance allocated for any country an amount equal to the sum of assistance or credits . . . in support of the completion of the Cuban nuclear facility at Juragua"⁵

One could argue that the mostly symbolic nature of Cuban-Russian nuclear cooperation in the post-Cold War period is indicative of the success of this approach. A much more reasonable appraisal would point to the chronic shortages of hard currency for both partners that have brought this project to a standstill. Yet, these provisions aim to limit the possibilities of this cooperation with the threat of a reduction in foreign aid to the Russians.

Ironically, under the 1993 Comprehensive Threat Reduction Act or "Nunn-Lugar Act" (Public Law 103-160), Russia's nuclear infrastructure was earmarked to receive assistance to stabilize its nuclear assets. Moreover, assistance to Russia and other states of the former Soviet Union was exempted from these sanctions in the areas of political, economic and humanitarian aid. This would have given Russia's Minatom a free hand to continue cooperating with Cuba and pursue reactor sales in the international nuclear markets. Furthermore, under the provisions of international nuclear accords and as a member of the IAEA, Cuba is entitled to pursue a nuclear energy capability so long as it adheres to provisions of full safeguards and nuclear safety protocols. Helms-Burton simply ignores all that.

Since the 1980s, Cuba has been a very active member of the IAEA. During the 1980s Cuba held a seat on the agency's board of governors and Cubans have served as international safeguards inspectors. The IAEA has provided a number of Cubans with advanced training in the areas of safety assessments, designing and implementing training programs for personnel involved in the operational safety and maintenance of nuclear installations, and projects to assist in licensing the reactor and providing quality assurance for them. It has also sponsored regional informational seminars in Cuba for the exchange of information on applications of nuclear energy.

Most recently, Cuba hosted an IAEA co-sponsored International Symposium on Nuclear Related Technologies in Agriculture, the Environment, and Radiochemistry in Havana in late October 1997. Over 31 nations were represented with 450 scientists, technicians and nuclear engineers participating. This can be viewed as a complimentary function to the wider international norms and standards related to the peaceful exploitation of nuclear energy. Additionally, there is a strong linkage between Cuban and Soviet/Russian nuclear scientists and engineers. This consists of a sort of "nuclear brotherhood" of a cadre of specialists who were educated and trained under the old Soviet system. Few can argue with the quality of this process and it substantiates Cuban claims of technical competence.

In February 1997, NBC Nightly News reported that funds contributed by the United States to the IAEA were being used to fund training programs in Cuba. A subsequent GAO study of the issue indicated that indeed a portion of the voluntary contribution by the United States was earmarked for technical assistance programs for the Cubans.⁶

But a closer inspection of the figures behind this news story indicates that there was more smoke than substance. In 1996, the United States contributed \$16 million

(about 30 percent) to the IAEA's technical cooperation fund. Cuba for its part contributed \$45,150 (or 0.7 percent) to the same fund. The IAEA has approved \$1.7 million in technical assistance for projects for Cuba for 1997 through 1999. By extrapolation, the United States contribution to the fund over this same period of time would be around \$48 million of the \$159 million total. The amount of technical assistance for Cuba, \$1.7 million, is 3.5 percent of the total US contribution. That assistance from the IAEA coffers to Cuba represents 1.06 percent of the total contributions of the fund for 1997 through 1999. The reduction of the 3.5 percent that goes to Cuba from the US contribution to the fund would only amount to a paltry \$59,500. This would hardly disable Cuban cooperation with the IAEA, nor could it be conceived as an impediment to the provision of assistance to Cuba from the agency. Symbolically, opponents of the Cuban program could point to the non-involvement of the US for assistance programs from the IAEA. Whether it is \$59,500 or \$1.7 million matters little. The IAEA will most likely push forward with the assistance and training programs that ultimately benefit the United States as well as Cuba.

Yet, in July 1997 a bill was introduced in the House of Representatives by Congressman Robert Menendez to withhold U.S. assistance for programs and projects of the IAEA in Cuba. H.R. 2092, known as the IAEA Accountability and Safety Act of 1997, is clearly designed to wash American hands clean of any involvement in Cuba's nuclear program. A similarly worded amendment was included in the 1997 Foreign Relations Authorization Act for 1998 and 1999. These bills are essentially toothless and violate the spirit of international nonproliferation cooperation. Like the Helms-Burton law, these proposed pieces of legislation render themselves moot by the nature of the exceptions to their provisions. Sec. 2 (2)(b)(i) states that the law would not apply to IAEA programs for "safety

inspection of nuclear facilities or related materials, or for inspections and similar activities designed to prevent the development of nuclear weapons" by Cuba. This sounds very much like the mission of the international organization under which all these activities would take place.

Even more perplexing is the inclusion of a provision in the 1997 defense-appropriations bill to construct a network of early-warning radiation detectors along the gulf coast of south Florida at a cost of \$3.2 million. The detection system would purportedly provide warning of radioactive fallout emanating from a nuclear reactor accident at Juragua. Yet this is a power plant that cannot possibly go into operation for at least another three years and that may never go into operation.

The restrictions specific to the Juragua facility and the nuclear research center at Pedro Pi would be lifted by the United States if Cuba: ratifies the Treaty of Tlatelolco or the Nuclear Nonproliferation Treaty; negotiates full-scope safeguards with the IAEA not later than two years after ratification of the accord; and incorporates internationally accepted nuclear safety standard into practice. Interestingly enough this has been the focus of Cuba's nuclear activities for some time. In 1996, the Cubans embarked on a new nuclear law project to complement the passage of Decreto-Ley No. 208—Regarding the National System of Accounting and Control of Nuclear Materials. Cuban nuclear officials have indicated that the reason for delay in the ratification stems from the need to alter the existing legal basis of nuclear law so that it will more easily comply with the provisions of agreements with which they fully intend to comply with. Decreto-Ley No. 208 represents part of that effort.

Cuban nuclear officials are clearly cognizant of the shortcomings of the Soviet-based systems of accounting, control and materials handling. They have sought to design legislation that conforms to internationally recognized standards and norms of nuclear materials handling and storage. They have modeled the system in spirit to the scope and objectives contained in U.S. Nuclear Regulatory Commission standards. Reaching that standard is another question altogether. But they have sought to make this system amenable to the requirements of the full-scope safeguards agreements that Cuba intends to sign when the treaty comes into force.

On a larger scale the new nuclear law project, under the direction of the Agencia de Energia Nuclear and the Centro Nacional de Seguridad Nuclear, seeks to place all of Cuba's nuclear activities under a system of laws and practices that correspond to existing and future international nuclear standards.⁶ Should this come to pass, and by all indications, it appears that it will, there will be very little that the United States can do to impede the progress of the Cuban nuclear project.

U.S. interests in perspective

Given Cuba's progress in meeting international nuclear standards and its eventual ability to construct the plant, what is to be gained from unreasoning U.S. opposition? As previously detailed, the demonization of Fidel makes it easy domestically. But what does the United States stand to gain by alienating our allies and trading partners over issues of little or no importance? Where does it end?

In the present environment of U.S.-Cuban relations, Cuban ratification of the Tlatelolco accord would soften the U.S. position not at all. Were Cuba to resume construction of Juragua, the call for action in Congress would be almost immediate. One can easily imagine the introduction of legislation that would call for the removal of the United States from certain international or regional organizations because those organizations treated Cuba as a sovereign and independent nation. Moreover, the imposition of unilateral sanctions against any state cooperating with Cuba's nuclear program would be almost certain. We have seen elements of the more radicalized opposition to the Castro regime call for "surgical strikes" against Cuban nuclear installations, and in a major U.S. newspaper no less.

There can be no argument that the Cuban nuclear program does raise concerns regarding the safety and integrity of a Cuban- and Russian-built installation. This is especially so when we consider the significant resource constraints that the project has faced over the past six years. As a close neighbor, we, as well as the Cubans, have a responsibility to be sure that the nuclear facility at Juragua would pose no threat to the environment. The United States has and continues to coordinate and consult with the other national civilian nuclear agencies in the region.

But by consistently threatening would-be participants in the Cuban program, we already are treading on thin international legal ice. The United States has over the past two decades expended vast amounts of diplomatic capital in garnering support for international agreements on all aspects of the exploitation of nuclear energy. Many of these agreements were the result of measured confidence-building initiatives and based on the promise of reciprocity. We are now fairly confident that these agreements provide a stable base for peaceful nuclear commerce and a reduced threat of weapons of mass destruction.

Scuttling these agreements and their resulting norms over our domestic imperatives regarding Cuba would be appallingly counterproductive. These international and regional nuclear cooperation agreements were worked out over many years and have served us well. Under them, Cuba like any other state in the international system is entitled to develop a peaceful nuclear energy capability, whether we like it or not. By enacting domestic legislation that ostensibly diminishes that ability we violate the very international accords we worked so hard to obtain.

Does this mean that we must idly stand by and let Cuba move forward on this project with nary a word? Not in the least. There are already well-established international protocols for review and oversight of civilian nuclear installations and programs. What this project in particular is in need of is direct U.S. cooperation in all areas of the program. What would be required is the insertion or reinsertion of the American scientific and technical community in this discussion. Given that Cuba is a member in good standing of the international nonproliferation community by virtue of its de facto participation and progress in the activities of that community, there should be direct contact between American and Cuba officials at this level.

It is noteworthy that Cuba, unlike its other regional partners, will not receive any of the rewards commonly associated with the accession to regional and international nonproliferation accords. Argentina and Brazil, for instance, got nuclear cooperation agreements and commercial contracts as a result of their accession to the Tlatelolco accord. Cuba is already a member of the IAEA, the American Nuclear Society, the World Association of Nuclear Operators and numerous other international nuclear organizations. Moreover, it continues making progress toward ratification and compliance with the Treaty of Tlatelolco as evidenced by the passage of Decreto-Ley No. 208 of 1996, and the new nuclear law project.

American nuclear cooperation with post-revolutionary Cuba would not be new. During the 1980s Cuban and American officials conducted informational and technical exchanges on the nuclear program. Duke Power of North Carolina, under the leadership of William Lee, hosted a delegation of Cuban nuclear officials at McGuire Nuclear Power Station outside of Charlotte, North Carolina. Both sides viewed these visits and exchanges as essential components for assuring that Cuba could successfully and safely exploit nuclear energy. Moreover, the 1997 GAO study affirmed that safety and technical cooperation with Cuban nuclear officials should continue for the time being.

Therefore it is puzzling why in the face of progress in these areas, and with the legitimate concerns regarding the development of nuclear energy in Cuba, that U.S. legislators would be seeking to limit Cuban access to advancement in these areas. Those officials now seated in positions of importance within Cuba's energy bureaucracies, and who will likely remain after a transition in leadership, need to know that the concerns raised by the United States are legitimate and that we are prepared to discuss these matters in a sober and objective manner.

It is precisely this type of cooperation that could enlarge one other neglected avenue for resolving the nuclear- power-plant issue: development of alternative energy sources. In January, 1997 Castro announced that Cuba would be seeking other energy alternatives, displacing the nuclear project as the energy-policy priority. This marked a significant shift in policy. The past year has witnessed a sea change in Cuba's energy priorities as it is de-emphasizing the nuclear option to explore

modernization of the existing energy generating capability and new means of energy generation such as wind and solar power.

As a future political, commercial and environmental consideration, it is in the interest of the United States to establish scientific and technical ties within Cuba's nuclear and energy community to encourage such alternatives. Casting aspersions and the threat of impending nuclear disaster across the Straits of Florida provides no real means of prudently addressing those concerns.

Furthermore, the domestication and politicization of international scientific and technical matters only serve to cloud the reality of what is occurring in Cuba in this area. This has forced individuals within this country to rely on secondary interpretations of the facts.

The only way one can know what is really going on in Cuba is to directly engage Cuban officials. In place of that we have vengeful politicians tampering with elements of our national security policy about which they are mostly uninformed and less than qualified to understand. As a result, we rely on mostly symbolic measures to address what are legitimate, but ultimately exaggerated concerns. U.S. threats are not likely to succeed. One or more partners might be frightened off, but it is an educated guess that the majority, as in the case of Helms-Burton, would resist any attempts to have the United States dictate their trade with Cuba.

Finally, the prospect of a democratic Cuba is one that would be welcomed by most everyone. Our actions today affect how smoothly the transition might be. Cuba is attempting to deal with its future by putting in place a reliable source of energy and electricity to fuel its continuing development. Nuclear energy, for all of its inherent failings, is a legitimate option for the Cubans. Cuba also needs to explore viable alternatives that correspond to its economic reality. The future Cuba, the Castro-less Cuba, the Cuba of the twenty-first century, will desperately need energy.

The United States can play a part in ensuring that Cuba can and will develop its energy sector for the future. The notion of a democratic life would ring hollow without any light by which to read or any power to turn the wheels of commerce and industry. Promoting the "economic asphyxiation" of Cuba—the declared goal of U.S. legislation—is both immoral and in conflict with U.S. interests.

Conclusion

The alarm bells being rung in Congress are decidedly premature. The plant is mothballed and may never go on line. Russian-Cuban negotiations on the possibility of resuming construction which began in April, 1998 remain in doubt. But even if they succeed and construction should resume, the plant could not possibly go into operation until the year 2001, and probably several years after that.

Second, the best way for the United States to assure itself of the plant's safety is to work through the IAEA to make sure all the international safety conventions are fully observed. The absolutely worst way is the approach now being pushed by some in Congress, i.e., to work against the IAEA and in violation of various conventions on nuclear safety. To threaten to cut funds to the IAEA—the very agency we should be relying on to supervise Juragua's construction and operation if it should ever reach that point—is simply illogical and counterproductive.

Finally, but perhaps most importantly, the United States cannot deny Cuba the right to build a nuclear power plant. To do so would violate a whole series of international conventions on the subject to which the United States and Cuba are signatories. All nations which have signed the conventions and committed themselves to safe construction and operation have a right to develop nuclear energy for peaceful purposes. What the United States can do—indeed, would be expected to do—is to make certain those conventions are upheld.

Notes

1. There has never been a consensus of the figures that are often quoted in relation to the Cuban nuclear program. Additionally, until such time as there is a "verifiable" accounting of aspects of the nuclear program by independent analysts all figures should be treated with doubt.
2. Sergey Rybak, "Russians To Resume Juragua Construction Alone, Minatom Says." *Nucleonics Week*, Vol. 38, No. 7, Pg. 2.
3. Russia's Minatom is in direct competition with U.S. and other Western nuclear firms, especially now since the signing of the U.S.-China nuclear cooperation accords for a market estimated to be worth \$60 to \$70 billion in potential sales.
4. See Kinka Gerke, "Unilateral Strains On Trans-Atlantic Relations: U.S. Sanctions Against Those Who Trade with Cuba, Iran, and Libya and Their Effects on World Trade Regime." PRIF Reports No. 47 (Frankfurt: Peace Research Institute, April 1997), pp. 6–7. See also Gebhard Schweigler, "Elemente der Irrationalität: Historische Traditionen und innenpolitische Faktoren," in *Zur weltpolitischen Rolle der USA* (Stiftung Wissenschaft und Politik: Ebenhausen, 1994), pp. 21-31.
5. Title 1, Sec.111.
6. See International Atomic Energy Agency's Nuclear Technical Assistance for Cuba (GAO/RCED-97-72) March 1997.
7. Jonathan Benjamin-Alvarado, "The Cuban New Nuclear Law Project" *The Monitor: Nonproliferation, Demilitarization and Arms Control*. Vol. 3, No. 3 (Summer 1997), p. 41.

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