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## Let's Not Protect Other Countries' "Military" Reactors

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By

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The US Defense Department has just awarded three [contracts](#) totaling \$40 million for work on mobile small reactors to be designed to “be *forward deployed* with forces outside the continental United States,” including at “remote operating bases.” It goes without saying, such reactors on U.S. military bases would not be subject to inspection by the International Atomic Energy Agency (IAEA)—the inspection arm of the Nuclear Nonproliferation Treaty (NPT). America’s special agreement with the agency takes account of the United States’ nuclear weapon status, and so excludes from international inspection activities related to national security.

It may surprise readers unacquainted with the fine points of the NPT, though, that, in principle, non-nuclear weapons states could get a similar deal. The NPT and IAEA does not prohibit non-nuclear weapon states from engaging in all military applications of nuclear energy, only those that involve nuclear explosives. And each IAEA safeguards agreement includes a provision that describes this possibility.

Here is how the loophole arises: Article II of the [NPT](#) obligates non-nuclear weapon states (all but the five authorized nuclear weapons states) to not obtain nuclear weapons. Article III requires IAEA safeguards “for the *exclusive* purpose of verification” of its NPT obligations—the obligations being to not divert nuclear energy from peaceful uses to nuclear weapons or nuclear explosives.

The obligation does not extend to non-explosive military applications and safeguards or inspections do not extend to diversions to non-weapon, that is, non-explosive military uses. The safeguards [agreement](#) that all NPT non-weapon states adopt with the IAEA contains a paragraph 14 whose title says it all: “Non-Application Of Safeguards To Nuclear Material To Be Used In Non-Peaceful Activities.” The paragraph imposes a number of restrictions on the removal of nuclear materials from IAEA oversight for “non-peaceful” use, but still leaves a good deal open to interpretation.

That includes the dividing line between peaceful and non-peaceful. That the NPT has a problem defining “peaceful uses” should be clear from the treaty’s Article V, which speaks of “peaceful applications of nuclear explosions.” Former Brazilian ambassador Sergio Duarte, who speaks with authority as he was president of the 2005 NPT Review Conference and, before that, chairman of the IAEA Board of Governors, recently wrote, “There is no [definition](#) of ‘peaceful uses’ in any multilateral treaty on non-proliferation.”

The possibility of non-explosive military use of nuclear energy by non-weapon states is not just an academic matter—the Brazilian Navy is developing a nuclear-powered submarine and expects its reactor to be exempt from inspection while the submarine is operating. This should draw attention to the extent of the non-explosive use exception to the comprehensive international inspections of nuclear materials: Would such an exception apply equally to a land-based military reactor? Could a country just put a military label on a power reactor and thereby curtail international inspection? What about nuclear fuel cycle facilities?

To its credit, the IAEA insists on the narrowest interpretation, for example that a naval submarine’s nuclear fuel on land is subject to inspection, and Brazil has agreed. But other countries might well insist on a broader interpretation of what military, or non-peaceful activities involve. It makes sense to address the matter while we have time to do so.

What’s curious is Brazil insists that submarine *propulsion*, even by an arm of its armed services, is itself a peaceful activity. This seems to be necessary for Brazil to maintain consistency with its adherence to the Latin American Tlatelolco treaty, pursuant to which (Article 1): “The Contracting Parties hereby undertake to use *exclusively for peaceful purposes* the nuclear material and facilities which are under their jurisdiction.” So, we have the strange situation in which Brazil insists the submarine’s propulsion is peaceful, which would seem to require constant coverage by IAEA inspection, and the IAEA regards the activity non-peaceful, and therefore eligible for an exemption.

Brazil’s submarine program is moving slowly, and it has not yet asked the IAEA for a definitive ruling, which allows time to resolve the issue. So far no other non-nuclear weapon countries besides [Iran](#) and [South Korea](#) have indicated interest in pursuing nuclear-powered submarines. The truth is that today non-nuclear submarines are superior for most tasks involving coastal waters. Israel, for example, has chosen to base its nuclear deterrent on German Dolphin

submarines. So, unless a country has world-wide ambitions, it makes little sense to opt for nuclear submarines. But for those who have the resources, nuclear-powered submarines still offer an opportunity to join an exclusive and prestigious club. And even just announcing interest in nuclear submarines offers a semblance of a rationale for a domestic uranium enrichment industry.

The notion of small reactors accompanying troops in battle raises all sorts of military, logistical, and international legal [issues](#) quite apart from the safeguard issues raised here and will probably go nowhere beyond the initial contracts. The real motivation apparently stems not from military need but from the Energy Department's desperate attempt to use Defense Department funds to keep a US nuclear reactor manufacturing industry [alive](#). In any case it's doubtful if the Defense Department even thought about the implications for the NPT.

The State Department describes the NPT as "the cornerstone of the nuclear nonproliferation regime," and says, "The United States remains dedicated to preserving and strengthening the nuclear nonproliferation regime, on which the treaty is based." Whether or not the US small military reactors go forward or not, or the Brazilian or other submarines get built, the effect of treating exemptions from the NPT as normal and acceptable undermines the treaty. With the NPT Review Conference slated for early next year, this is the [time](#) to clarify these issues with a view to eliminating the IAEA exception to inspections of non-explosive military applications of nuclear energy.

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