Statement of Paul Leventhal
on Behalf of
Nuclear Control Institute
and
Committee to Bridge the Gap
before the House Committee on Energy and Commerce
Subcommittee on Oversight and Investigations
on "A Review of Security Issues at Nuclear Power Plants"
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NUCLEAR POWER REACTORS ARE INADEQUATELY PROTECTED AGAINST TERRORIST ATTACK

My name is Paul Leventhal, President of the Nuclear Control Institute (NCI), a non-profit organization based in Washington and concerned with security against nuclear proliferation and nuclear terrorism. I appreciate the opportunity to testify before you today on behalf of NCI and my colleague Daniel Hirsch, President of the Los Angeles-based nuclear policy organization, the Committee to Bridge the Gap (CBG). NCI and CBG have collaborated for seventeen years in efforts to upgrade the seriously inadequate security requirements at the nation's nuclear power plants. It is about those unresolved vulnerabilities that I have been invited to testify today.

Put simply, the nation's nuclear power reactors are vulnerable to attack by terrorists, and the Nuclear Regulatory Commission and other government entities have failed to move decisively to impose the further security measures that are needed to prevent a successful attack and avert catastrophic radiological consequences.

Three days after the attacks of September 11, NCI and CBG wrote to NRC Chairman Richard A. Meserve. We cited "the extraordinary and unprecedented threat that now exists inside the United States in the wake of the attacks on the World Trade Center and the Pentagon" and laid out specific proposals for denying terrorists the opportunity to destroy nuclear power plants.

These proposals include immediate use of National Guard troops at all of the nation's reactors to deter attacks from land and water, prompt deployment of advanced anti-aircraft weapons to defeat suicidal attacks from the air, and a thorough re-vetting of all plant employees and contractors to protect against sabotage by insiders. In addition, we called on the NRC to significantly upgrade its security regulations to protect against the larger numbers and the greater sophistication of attackers posed by the new terrorist threat.

In a brief reply to our specific proposals, Chairman Meserve stated only that the "Commission is evaluating current requirements and statutory authority relating to acts or threats of terrorism, including but not limited to those that you presented in your letter." Our letter to Chairman Meserve and his response are attached to this testimony.

A Familiar Refrain

The Chairman's response is a familiar refrain, and we frankly do not have the luxury of time to allow the NRC and other federal agencies to engage in a prolonged bureaucratic review process that Chairman Meserve has since said is now underway. Iran threatened attacks against U.S. reactors as early as 1987, and recent trial testimony has revealed that bin Laden's training camps were offering instruction in 'urban warfare' against 'enemies' installations' including power plants. It is prudent to assume, especially after the horrific, highly coordinated attacks of September 11, that bin Laden's soldiers have done their homework and are fully capable of attacking nuclear plants for maximum effect.

The immediate danger is underscored by the fact by that nearly half of the nuclear plants tested in NRC-supervised security exercises have failed to repel mock terrorist attacks. These exercises involve small numbers of simulated attackers compared with the large number of terrorists who waged the four sophisticated, coordinated attacks of September 11. The NRC's mock terrorist exercises severely limit the tactics, weapons and explosives used by the adversary, yet in almost half the tests they reached and simulated destruction of safety systems that in real attacks could have caused severe core damage, meltdown and catastrophic radioactive releases. Now in response to operator complaints and budgetary constraints , the NRC is actually preparing to shift responsibility for supervising these exercises to the operators themselves. Current events clearly show that nuclear power plant security is too important to be left to industry self-assessment.

Dr. Edwin Lyman, a physicist and NCI's scientific director, has performed a straightforward calculation indicating that a direct, high-speed hit by a large commercial passenger jet "would in fact have a high likelihood of penetrating a containment building that houses a power reactor. Following such an assault, the possibility of an unmitigated loss-of-coolant accident and significant release of radiation into the environment is a very real one. Such a release, whether caused by an air strike, or by a ground or water assault, or by insider sabotage could result in tens of thousands of cancer deaths downwind of the plant." A number of these plants are located near large cities, such as the Indian Point facility outside New York City and the San Onofre plant near Los Angeles and San Diego.

We submitted Dr. Lyman's analysis to Chairman Meserve with a request for his comments and for an NRC study to evaluate the consequences for each licensed operating reactor that could result from an attack similar to those on September 11. On November 29, Chairman Meserve responded in a letter that our analysis will be considered in the agency's overall reevaluation of security and safeguards, which "will include an assessment of the potential consequences of a large aircraft attack on a commercial nuclear power plant." The present plan, he said, was that "this assessment will broadly consider the vulnerabilities of operating reactors, followed by a more focused study of a few representative plants." I submit an abridged version of Dr. Lyman's study for the hearing record, along with the exchange of letters with Chairman Meserve, and I submit a non-public copy of Dr. Lyman's full analysis for the subcommittee's use in overseeing the work NRC does to evaluate the vulnerability of reactor containments to attacks from the air.

As Dr. Bennett Ramberg, until recently CBG's research director, noted in his seminal work on the subject, *Nuclear Power Plants as Weapons for the Enemy: An Unrecognized Military Peril* (University of California Press, 1984), the possession of nuclear energy facilities gives to one's adversaries a quasi-nuclear capability to use against you. In effect, a conventional attack—be it a truck bomb, plane crash, attack by terrorists on foot, or an insider—can turn a nuclear reactor into a radiological weapon. At the very least, hundreds to thousands of square miles could be placed off limits to human habitation due to the lingering impact of long-lived radioactive elements. The economic consequences would be devastating.

The Dilemma of Speaking Out

Our organizations have long been troubled by the dilemma of speaking about the present vulnerability of nuclear power plants. We have tried to work quietly for a decade and a half in a largely unsuccessful attempt to get the NRC to upgrade reactor security. To illustrate this longstanding effort, I submit for the hearing record an article from the *Bulletin of Atomic Scientists* of March 1986, "Protecting Reactors against Terrorists," by the Committee to Bridge the Gap's Daniel Hirsch and colleagues Stephanie Murphy and Bennett Ramberg, as well as the recommendations the same year by the International Task Force on Prevention of Nuclear Terrorism for "Securing Nuclear Facilities." This Task Force, convened by the Nuclear Control Institute, included senior nuclear officials from industry, the military, and the national laboratories.

Our principal success came in 1994 when the NRC agreed to require nuclear plant operators to erect barriers and establish setback distances to protect against truck-bomb attacks. But this reform came only after the lesson of the bombing of the World Trade Center the year before, and the NRC has refused our appeals to upgrade protection to defend against the much larger bombs used by terrorists since.

The horrendous attacks of September 11 have now made NRC foot dragging intolerable. The new threat should now be evident to all, and the country can afford to wait no longer. The vulnerabilities at these plants can and must be closed, now. The American people have a right to know the dangers and to demand the prompt corrective actions that we propose to protect nuclear power plants from terrorist attacks and the unthinkable consequences that could follow.

We are concerned with the longstanding history of inaction on this issue by the Nuclear Regulatory Commission, a pattern continuing to this day despite the urgency of the situation posed by the attacks of September 11. The NRC's security regulations are designed for a terrorist threat a small fraction of what was made evident to all two months ago. Yet despite the President saying we are at war and should expect further terrorist attacks at domestic targets, the NRC has done nothing concrete but recommend that plants increase their alertness level and coordinate security with state authorities. The NRC's grossly inadequate security rules remain unchanged.

Each of the nation's 103 operating nuclear plants contains in it an extraordinary amount of radioactivity. An attack by a truck bomb, insider, armed group, or hijacked airliner at one of

our civilian nuclear facilities could result in sufficient radioactivity released to produce tens or hundreds of thousands of latent cancers and contaminate hundreds of miles downwind. A Sandia National Laboratory report concluded that a successful truck bomb attack at a civilian nuclear plant could result in "unacceptable damage," i.e., a meltdown. Further, NRC and the Nuclear Energy Institute, the industry lobby, now concede that containment structures were not designed to withstand a 757 crash of the sort witnessed on September 11.

In addition, the safety systems necessary for keeping the fuel cooled and preventing melting are of special concern, and represent "soft targets" if reached by terrorists, as are the spent fuel pools. The latter are generally outside of containment and hold several Chernobyl's worth of long-lived radioactivity. The zirconium cladding on the spent fuel in those pools can catch fire if terrorists succeeded in damaging the pools and causing them to lose their water coolant. The spent fuel pools are even more poorly protected than the reactors themselves, particularly at shut-down reactors. Nor has the defense of spent-fuel pool ever been tested in the mock-terrorist exercises supervised by the NRC.

Outdated Security Requirements

For 17 years our two organizations have been warning the Nuclear Regulatory Commission that its quarter-century-old security regulations for protecting civilian nuclear facilities from terrorist attack are woefully inadequate and outdated. These regulations require, for a nuclear power plant, a very small number of guards---a minimum of five--- [10 CFR 73.55(h)(3)] and the ability to repel no more than a *very* small group of attackers, entering the site as a single team and with artificial constraints on weapons and explosives, and the involvement of only one insider [10 CFR. 73.1(a)(1)]

Until recently, when our repeated petitions were finally granted in part, no protection whatsoever against truck bombs had been required. The rule adopted in 1994 was not intended to protect against terrorist bombs much larger than the one used in the attack on the World Trade Center the year before. No security measures against attack by boat or air, as just occurred in New York and Washington, are required under NRC rules. Aside from the truck bomb rule, the NRC security regulations have not been upgraded significantly since the 1970s, despite the dramatic increase in the magnitude of the terrorist risk.

The NRC has long argued that stronger security regulations were not required for domestic nuclear facilities and transport because of the alleged lack of any domestic threat, the likelihood of advanced warning if a threat materialized, the relative lack of sophistication in terrorist attacks, and a supposed reluctance of terrorists to create large numbers of casualties. The coordinated attacks on the World Trade Center and the Pentagon demonstrate that all of these assumptions no longer hold, if ever they did.

Those attacks involved far more terrorists than the NRC's Design Basis Threat (DBT) contemplates, acting as four independent teams (only one attacking team is contemplated in the DBT), and employing a high level of sophistication and planning. In addition, the attacks occurred without any advance warning recognized as such by the responsible agencies. Furthermore, current regulations state that reactor operators are not required to protect against

attacks by an "enemy of the United States," be it a nation or a person. In the absence of the federal government taking responsibility for security of these nuclear sites against attacks by "enemies," it is clear that protection of the public in this regard is falling through the cracks.

The new "design basis threat," made manifest by September 11, is at least 19 sophisticated and suicidal terrorists attacking from at least four different directions. Mr. Chairman, we ask that this Subcommittee inquire of the Chairman of the Nuclear Regulatory Commission whether any nuclear power plant today is capable of repelling an attack of that magnitude. If the answer is no, as we suspect it will be, he should be asked why he has not promptly ordered an immediately effective upgrade of the NRC security rules to meet such a threat, and why, in the meantime, he has not advised the President that military protection of these plants is needed to deter and defeat such an attack.

This question is all the more pertinent, given a recent statement by Chairman Meserve. On November 8, he said: "Plainly these vicious attacks (of September 11) far exceeded anything that the NRC had contemplated as a threat to our licensees. . . .In principle, of course, it is the responsibility of the Federal Government to protect the nation against threats from abroad; but the reality of the present crisis is that all of us, organizations and individuals, public and private, have a responsibility as citizens to do our part to protect the American people."

A Matter of Law and Regulation

But it is not a matter of principle. It is a matter of law and regulation. The plain facts are that there is now a terrorist threat to nuclear plants that the NRC had failed to foresee. It is the responsibility of the NRC to require its licensees to provide adequate security, given the nature of the threat now evident, and to advise the President how to provide the protection if industry cannot. On November 8, Chairman Meserve also made a commitment that "the NRC will reexamine the DBT and modify it, as appropriate." This commitment is vague and open-ended. It is surely no substitute for providing immediate military protection of nuclear power plants.

In 1991, our two organizations petitioned the Nuclear Regulatory Commission to upgrade its Design Basis Threat regulations. In particular, we called for increasing the assumed attacking force, which security must be designed to repel, to **twenty** attackers acting as multiple teams. That number has been shown to be remarkably prescient in light of the 9/11 attacks. The NRC rejected our petition, stating predictably that an attack involving more than the present Design Basis Threat of "several" attackers acting as a single team was not credible. The actual number of assumed attackers is a *very* small group compared with the nineteen attackers in four coordinated teams on September 11. Thus far, the NRC has failed to upgrade the DBT rules in response to the new threat environment. It promises a "top-to-bottom review" of uncertain duration, and anticipates at some point a government role to fill "any gap between a licensee capability and the assumed threat."

The obvious question is, what do we do in the meantime? Both the threat and the gap to be filled exist right now. The notion that both will wait until the NRC gets its act together is unreal and dangerous.

President Bush has called up the National Guard at airports and placed Federal marshals on aircraft to make Americans feel safe flying again. Yet, neither the NRC nor the White House has called for military protection of nuclear power plants located within tens of miles of where millions of Americans live and work. Relatively small numbers of National Guard troops have been placed at nuclear power plants in 13 of the 32 states that have such plants, but at least two states have recently withdrawn the troops. In the absence of clear guidance from Washington, the response of the states has been indecisive and confused. Both NRC Chairman Meserve and Homeland Security Director Ridge have advised governors to coordinate security with plant operators but have left it to the states to decide for themselves whether state troopers or National Guardsmen are needed, and in what numbers. This level of response is clearly inadequate.

Failed Security Exercises

To make matters worse, many reactors in the country do not have security systems in place sufficient to meet even the current, very weak regulations. The NRC's Operational Safeguards Response Evaluation (OSRE) Program tests reactor security by running "black hat" mock attacks. **Even with six months advance warning of when the test attack will occur, nearly half the reactors in the country have failed these tests---meaning that the attackers simulated destruction of a "target set," which is defined as set of redundant safety systems needed to maintain cooling of the core and prevent a meltdown.**

The response by NRC and industry to this dismal record was to attempt to kill the OSRE program entirely three years ago, and now, having had to back off because of bad publicity, they are attempting to convert it into an industry-run, Self-Assessment Program (originally called SAP, but changed to SPA, for Safeguards Performance Assessment). Both the NRC and industry representatives claimed that a number of the exercises were not in fact failures because plant operators could have intervened to mitigate damage caused by the mock attackers. But they refused to require operators to demonstrate such supposed "operational impact" on simulators--- that is, to demonstrate that they actually they could respond effectively to multiple system failures caused by the attackers. Nor, at the outset, did they account for the possibility that plant operators might not survive an attack or be able to function effectively inside or outside the control room when a plant is under siege.

When the NRC moved to zero out the OSRE program in 1998, the NRC official responsible for supervising the exercises, Retired Navy Seal Capt. David Orrik, filed a "Differing Professional View" strongly protesting the move. "NRC has only one – small – program to ensure that the 60+ nuclear power plants are able to protect against a terrorist attack aimed at causing radiological sabotage, i.e, an "American Chernobyl," he wrote. After the Commission restored the program, Orrik was pressed at a Commission hearing the following year as to whether his finding that 47 per cent of the plants tested had revealed "significant security weaknesses" was too severe, given the possibility the operators could mitigate damage. He replied: "We did not look at operational impact. That was not my charter. We looked at the security impact only, and if the target set was reached, destroyed, that was it."

The NRC, at the industry's urging, has rewritten the procedures to give credit for operators' claims that they could prevent a meltdown even after a set of redundant safety systems

is destroyed in an attack. This approach only serves to undercut and confuse what should be a clear security goal in protecting nuclear plants against terrorist attack: denial of access. Under the new procedures, credit is given for operator intervention only if it is determined that the operators would still be alive and able to take the mitigating action in the simulated attack situation. But this is still a highly subjective and conjectural factor compared with the unambiguous simulated destruction of a complete target set by the mock attackers.

Unfortunately, the security situation at nuclear power plants has been getting worse. Since May 2000, when NRC began public reporting of the plant-by-plant results of OSRE exercises, only two of 11 plants tested succeeded in repelling a mock attack force. Of the nine plants that failed, two plants managed to avoid simulated destruction of a complete target set, while seven plants failed to prevent destruction that, in the event of a real attack, could have resulted in severe core damage and meltdown. Thus, 82 percent of the plants tested failed to repel mock attackers, and 64% of the plants tested lost redundant safety systems and faced core meltdown. This is a disgraceful situation that no amount of spin control by the NRC and the nuclear power industry can hide.

In addition, certain industry proposals could significantly increase the targets and risks of nuclear terrorism—particularly the push for the construction of a new generation of "pebble bed" reactors, made of combustible graphite like Chernobyl and with no containment structure, and the prospect of ending the 25-year-old bipartisan policy against commercial reprocessing of spent fuel of nuclear power plants. Reprocessing would put into commerce immense amounts of separated plutonium that could be stolen by terrorists for use in nuclear or radiological weapons. A study performed for NCI by five nuclear weapons designers made clear that a terrorist group sophisticated enough to steal such material could put together a technical team capable of making atomic bombs.

The NRC response to the World Trade Center/Pentagon attacks has failed to rise to the extraordinary threat that the nation now faces. This became apparent on the very first day when, instead of issuing an immediately effective order to reactor operators to go to the highest state of alert, it merely "recommended" that they do so, noting further that there was no identified threat against any plant (as if there had been such a threat against the World Trade Center and the Pentagon). Absent any recommendation from the NRC, the President has not called up the National Guard to protect nuclear power plants. As noted, the result is that most reactors have no protection by National Guard troops and those that do, have it in insufficient numbers. Furthermore, the airspace over civil reactors is not restricted. (A week-long ban on small planes flying near nuclear plants has been lifted.)

For a decade and a half, the Nuclear Control Institute and the Committee to Bridge the Gap have worked to try to get the NRC to act responsibly and to protect these facilities adequately. We submitted petitions for rulemaking, met with Commissioners and their staffs, submitted scholarly studies. With one partial exception, a truck bomb rule of insufficient effectiveness, our efforts have been repeatedly frustrated.

The horrendous events of September 11 make clear that our country is facing adversaries well able to identify this nation's vulnerabilities and extremely willing to exploit them to produce

massive loss of life. The vulnerability of our nuclear plants is no secret. Officials have warned that there may be more attacks planned; one need not be a rocket scientist to figure out that nuclear plants may be the next target, topping in destructive effect the most recent tragedy. Officials have warned that other cells may have been pre-emplaced in the U.S. months or years ago, as were the ones that carried out the September 11 attacks. Could some be working in nuclear plants here, or planning external attacks against them?

What Needs to be Done

To summarize what we believe should be done to protect the public from the catastrophic consequences that could arise from a successful terrorist attack, here are our recommendations in brief:

1. Arrange for the National Guard to be called out to protect each domestic nuclear facility, and advise the Guard as to the specific kinds of threats that need to be protected against: truck bombs, attacks by boat or air, ground assault/penetration, and insiders. We have been advised by security experts that a force of 30 to 40 guardsmen for each plant site is needed to provide a visible show of force and a credible deterrent to attack.

2. Provide anti-aircraft protection at each reactor site to deal with possible attacks by aircraft. We note the French government has deployed anti-aircraft measures at sensitive nuclear facilities in France. Why has this not been done here, when we are the country that was attacked on September 11?

3. Commence a thorough re-evaluation of all nuclear power plant personnel, including the hundreds of outside contractors who are onsite during refueling outages and for routine maintenance, for potential security risks and establish an immediate strict two-person rule to reduce risks of insider attack.

4. On an immediately-effective basis, promulgate new security regulations for protection of nuclear facilities that upgrade those regulations and the associated Design Basis Threat to deal with a threat of the magnitude that is now clear. That security upgrade should include:

(a) increasing the design basis threat to a significantly larger number of attackers, in excess of the 19 involved in the September 11 attacks;

(b) increasing the required guard force accordingly, from the current regulatory minimum of five;

(c) requiring protection against attackers working in coordinated teams, using sophisticated techniques and equipment;

(d) requiring a strong two-person rule and other enhanced measures to protect against insiders;

(e) requiring protection against a truck bomb as large as a large semi-trailer can carry;

(f) requiring protection against boat and airplane attacks;

(g) requiring full security protection of spent fuel storage pools and dry cask storage, including after reactor closure;

(h) and requiring armed escorts for all spent fuel shipments, capable of repelling attacks by a large number of attackers working as several coordinated teams and using sophisticated techniques and equipment.

5. Reverse the plans for an industry-run, self-assessment program of security exercises aimed at replacing the NRC-supervised OSRE exercises; and instead, at least tripling the number and frequency of OSRE tests; making any problems identified subject to enforcement action; having OSRE test against the full magnitude of the security threat made clear by recent events (e.g., large numbers and high sophistication of attackers, multiple coordinated attacking teams, active insider, etc.) and the full range of potential targets at the reactor site (including spent fuel storage); and strictly enforcing the security requirements so that failure of an OSRE test results in a reactor shutdown unless there is a clear demonstration in a follow-up OSRE exercise that all deficiencies have been promptly and fully rectified.

6. Require a demonstration that the design of any new reactor is able to withstand damage from a terrorist attack after the security system has been successfully penetrated.

7.Bar any transport of high-level waste until and unless new security requirements are put in place that require accompanying security forces capable of meeting attacks by terrorists of the magnitude and sophistication so dramatically revealed by recent events, and which provide high protection against insider actions.

A number of our proposals have been incorporated into the House and Senate versions of the Nuclear Security Act, which were introduced last week. We will submit our detailed views on this legislation when hearings are held to consider it. Generally, we are supportive of the provisions requiring the NRC to revise the Design Basis Threat to deal with threats equivalent to the events of September 11 and establishing a federal nuclear security force. On the latter we have reservations about establishing such a force in the NRC and would prefer that military protection of nuclear power plants be mandated for the duration of the post-9/11 emergency. We are dismayed but not surprised by the strong opposition to the legislation expressed by the NRC and the industry. The statement by Chairman Meserve (in a letter to Senator Harry Reid) that "[T]here have been no failures in nuclear plant security of the type that has plagued the commercial airline industry and thus no need for such radical change," is especially egregious, given the results of the OSRE exercises.

Chairman Meserve has made some statements recently that suggest the NRC may now finally be prepared to upgrade the DBT in light of the current extraordinary circumstances. But it remains to be seen whether the NRC and industry will once again stick their heads in the sand, hoping the problem will go away of its own accord.

This has been their customary posture, which they assume out of concern that if they were to concede that reactors are vulnerable to terrorist attack and that large-scale health consequences and contamination would result, public fear of nuclear power would increase. Prospects for a revival of nuclear power would then diminish, they believe, and even continued operation of existing reactors might be jeopardized. But their concerns are extraordinarily short-sighted, placing the industry's economic interests and political agenda above public health and the safety and the common defense and security of the United States.

Emancipating A Captured Regulatory Agency

The NRC is obligated by the Atomic Energy Act of 1954, as amended, to uphold safety and security interests, and by the Energy Reorganization Act of 1974 to serve as an independent regulator without regard to the industry's economic interests when it comes to establishing or enforcing adequate protection. Statutory considerations aside, if the industry and the NRC continue to refuse to adequately protect these facilities, Americans will demand – as they should – that the reactors be shut down.

Indeed, there is now a petition drive, in which Nuclear Control Institute is participating, to shut down the two reactors still operating at the Indian Point plant, located 25 miles from New York City, where 20 million people live within a 50-mile radius of the plant. The petition calls on the NRC to shut down the plant for the purpose of overhauling and testing the defenses and to permit restart of the plant only if physical protection can be demonstrated to be effective against the new threat environment.

The NRC now acts as a captured regulatory agency---captured by the industry it is obligated to regulate. A quarter century ago, Congress fissioned the Atomic Energy Commission into two separate agencies in order to end the inherent conflict in the old AEC between promotion and regulation of nuclear energy. As a member of the staff of the Senate Government Operations Committee, I was intimately involved in preparing the law that created the NRC and the present-day Department of Energy, so I am familiar with what Congress intended.

Today, sadly, the NRC has come full circle and closely resembles the atrophied Regulatory Division of the old AEC. In the current threat environment, this presents a dangerous situation. Congress needs to revisit the overall role and performance of the NRC, but at this moment it must tell NRC in absolutely clear terms: upgrade the security of nuclear power plants, *now*, to levels sufficient to protect against an attack of the scale and sophistication of September 11, or be prepared to face legislation mandating the shutdown of these plants. The danger to the public is too high to permit a captured and intimidated agency to take a "business as usual" approach in these extraordinary times.

We have concluded, as noted, that we needed to go public with the vulnerabilities to terrorist attack and the failure of the NRC to responsibly address them. It is prudent to assume that the terrorist adversary knows that the plants are vulnerable. The training camps in Afghanistan included instruction and drills on attacking power plants. We are dangerously past the time for the public and elected officials to wake up to this vulnerability and to demand

prompt action to remedy it. We must move quickly to prevent attacks on nuclear power plants that could release immense amounts of cancer-causing, radioactive contamination over large, densely populated areas. We all would have trouble living with ourselves if the worst happened and we had we not taken every possible step to prevent it. We must act now.