
How can the public assess the risks of a nuclear power program if the government persists in withholding information?

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Secrecy and nuclear power

Atomic power first emerged from the wraps of military secrecy in 1954. At the time the peaceful uses of atomic energy were thought of as a bountiful provider for social progress. Yet there was an emerging public awareness of the dangers of radiation, and Congress recognized that development of this new power source could continue only if there was public acceptance.

In the Atomic Energy Act, it was stated that:

“The dissemination of scientific and technical information relating to atomic energy should be permitted and encouraged so as to provide that free interchange of ideas and criticism which is essential to scientific and industrial progress and public understanding and to enlarge the fund of technical information.”¹

These words echo a tenet of our democratic society, in which an essential ingredient for free and open debate is access to all relevant facts.

The Executive branch of the U.S. government, however, has time and again withheld pertinent information from the public and from the Congress. This has distorted the content of the debate, undermined the validity of decisions and destroyed the credibility of the nuclear industry and government regulators.

The long debate over civilian nuclear power has its roots in the late 1940s when the U.S. public first became aware of the biological effects of radiation. The information triggered a public discussion of the hazards associated with atmospheric testing of nuclear weapons, resulting in a moratorium on testing in 1958 and the Atmospheric Test Ban Treaty in 1963.

In the late 1960s, public attention was focused upon the adequacy of radiation exposure standards as they directly concerned the Plowshare Program for the peaceful uses of nuclear explosives and the developing nuclear industry. The ensuing debate resulted in the virtual elimination of the Plowshare Program. Confronted with an informed public raising serious questions on radioactive emissions from nuclear power plants, the Atomic Energy Commission in June 1971 proposed new guidelines for emissions from light water reactors which were the center of the controversy.

Serious questions were also raised concerning the adequacy of emergency core cooling systems (ECCS) in light water reactors. Public exposure of the failure of these systems in semi-scale tests forced the Commission to revise its standards. A further challenge to these standards culminated in the infamous ECCS Rulemaking Hearing in 1972 to 1973, described as a watershed in the history of the American nuclear safety controversy.

Public concern over the liquid metal fast breeder reactor and attempts to launch plutonium recycling in commercial light water reactors first surfaced in environmental litigation in the early 1970s. It exploded into a national debate over U.S. nuclear non-proliferation policy in 1974 with the announcement of India's “peaceful” atomic explosion in the Rajasthan Desert. After the explosion Canada severed its nuclear relationship with India, but the United States remained silent. India's use of U.S. heavy water in the production of plutonium for India's first atomic bomb was not revealed to the public for two years, and

then only at Congressional insistence.² Congress then responded by passing the Nuclear Non-Proliferation Act of 1978.

Clearly, debates on such issues as atmospheric weapons testing, power plant emissions, reactor safety and nuclear weapons proliferation have been triggered by events or information made known to the public. But unfortunately for open debate and the democratic process, the case seems to be that the more important the issue, the greater the secrecy. The greatest risk associated with civilian nuclear energy, for example, is that its spread is contributing to the proliferation of nuclear weapons. Yet it is here that the U.S. government has gone to the greatest lengths to withhold information.

Fundamental to any assessment of the risks of nuclear weapons proliferation is any existing evidence of diversion of materials to weapons production. Such evidence is vital to an assessment of the International Atomic Energy Agency (IAEA) and other elements of the international safeguards regime. It could indicate whether the regime provides timely warning, and whether countries will apply adequate sanctions when required.

Evidence of diversion defines, in real terms, credible threats to facilities that produce nuclear weapons-usable materials, both here and abroad. Consequently, it is important to assess the adequacy of physical security and material accounting and control at these facilities. The Executive branch has nevertheless been prone to cover up any evidence of diversion.

Perhaps the most significant evidence of theft of atomic bomb material



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involved Israel and a U.S. company called the Nuclear Materials and Equipment Corporation. A series of routine inspections by the Atomic Energy Commission in 1964 and 1965 found that some 164 kilograms of highly enriched uranium could not be accounted for at the company's facility. The Central Intelligence Agency and several Congressional committees are now convinced that enough highly enriched uranium to manufacture several atomic bombs was diverted to Israel.

In a decade of public assurances that all significant inventory differences of special nuclear materials were due simply to routine measurement and bookkeeping errors, the Atomic Energy Commission never divulged the events surrounding this alleged diversion. In fact, all during the Johnson, Nixon, Ford and Carter administrations the relevant agencies dutifully kept the secret. It only began to come to light when an employee in the Nuclear Regulatory Commission's safeguards branch began complaining that information essential to the development of policy was being denied the staff by other agencies of the government.

Although this case has now generated at least 10 separate government investigations, including those of four Congressional committees, even today the full story is still being withheld by the CIA and FBI.

A second celebrated case of diversion occurred in November 1968, also involving Israel. This diversion involving the hijacking—of some 200 tons of uranium ore aboard the Liberian freighter, *Scheersburg A*.—is believed to have been the work of Mossad, the Israeli intelligence service. The uranium was destined for Dimona, the experimental reactor in the Negev Desert which is the source of Israeli weapons material and which, incidentally, is closed to international inspection.

Did the international safeguards regime provide timely warning? The

answer is no, but the public would not know that for almost a decade. Seven months went by before EURATOM, the European Community's nuclear agency, ascertained that the cargo of the *Scheersburg A* had disappeared on the high seas. The U.S. Atomic Energy Commission was not notified by EURATOM officials until December 1969, a year after the diversion. Instead of sounding the alarm, this diversion became a closely guarded secret by both EURATOM and U.S. officials until it was discovered by a former Congressional staffer and revealed at the non-governmental Salzburg Conference for a Non-Nuclear Future on April 30, 1977.

A secret 1970 Atomic Energy Commission memorandum, declassified only when requested pursuant to the Freedom of Information Act some nine years later, reveals that "EURATOM had been searching assiduously for a means to apply sanctions . . . but that they so far had been unable to do so."³ While German nationals were involved in the diversion, a EURATOM official noted that it would be politically very difficult for the Federal Republic to apply sanctions against Israel.

Either unaware of or still covering up the Nuclear Materials and Equipment Corporation affair, a 1969 secret memorandum to the Atomic Energy Commission noted:

"If indeed the loss reported represents a sale or diversion of material it would to our knowledge be the first such credible instance of this nature, and it was desirable that the United States, the United Kingdom, Canada, and all of the IAEA member nations be informed of the details as rapidly as possible since prudent safeguards actions on all our parts would indicate extra precautions, particularly oriented at the possible diverter in this instance. . . . We also encouraged EURATOM to consider whether their best interests would not be served by

taking the initiative in disclosing this loss as soon as possible, since they would inevitably be put on the defensive if the information leaked."⁴

Thus, for a decade, while the International Atomic Energy Agency, American and European bureaucracies and their nuclear establishments spoon-fed the virtues of the so-called "peaceful atom" to the public, they covered up the fact that their safeguards programs could provide neither timely warning nor sanctions. They considered telling the public—only to avoid later embarrassment—but never did.

While telling the world community that it could be relied upon to sound the alarm, the IAEA Board of Governors in 1978 voted not to release publicly its Special Safeguards Implementation Report. This internal assessment of its own program demonstrates that IAEA safeguards cannot reliably detect diversion from reprocessing plants and other bulk handling facilities. Although in this instance, the United States voted for release, its own assessments of the adequacy of the international safeguards regime are routinely classified.

Information related to nuclear weapons development in other countries is essential to any public assessment of proliferation risks. Yet here lie some of the Administration's most closely guarded secrets. Details of the current status of programs in Israel, Pakistan, India, Taiwan, South Korea, Argentina and South Africa are state secrets. The U.S. government has not released, for example, the bulk of its evidence of U.S. and European companies' assistance in the development of the nuclear fuel reprocessing and gas centrifuge enrichment plants that Pakistan has under construction for the production of weapons-usable material. Although some interesting tidbits have leaked from the U.S. bureaucracy, the public has been forced to rely on the

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European press for most of its information.

One of the more intriguing leaks of U.S. state secrets occurred when the Natural Resources Defense Council, wanting to know what information the Atomic Energy Commission had before it when considering its response to the Indian explosion, sent a Freedom of Information Act request to the Department of Energy. This request turned up documents originating in the CIA and was therefore referred to that agency. In January 1978 the Council received from the CIA a copy of an expurgated version of a 1974 "Special National Intelligence Estimate on the Proliferation of Nuclear Weapons."⁵ The CIA officer had marked two paragraphs for release, but because of a clerical error, the report, minus only those two paragraphs, was forwarded.

This report revealed for the first time in writing that the CIA believed that Israel had acquired nuclear weapons. It also indicated the Agency's concern regarding the potential for nuclear weapons development in several other non-weapons states, including Japan, Taiwan, Argentina and South Africa. This "National Intelligence Estimate" had heretofore not been disclosed to the Congress or the public. One Congressional staffer noted that the Natural Resources Defense Council had obtained more pertinent information through this bureaucratic misstep than Congress had been able to obtain through its own exhaustive investigations and hearings. The CIA still refuses to release the two paragraphs that were the subject of the original request. It is hard to know what purpose our intelligence agency serves when even our decision-makers are denied the most pertinent intelligence analyses.

In theory, the principle which underlies the classification of domestic—and for that matter international—safeguards information is "to provide the

maximum possible information to the public, while at the same time protecting against unauthorized disclosure of information which could cause identifiable damage to national security."⁶ Inevitably, the phrase "to provide the maximum possible information to the public" gets lost in the translation, as does a requirement under a recent Presidential Executive Order that "the need to protect such [National Security I]nformation may be outweighed by the public interest in disclosure. . . ."⁷

Detailed reports of attempted or successful penetration of nuclear facilities and attempted or successful diversion or theft of special nuclear material are classified as "National Security Information." Any site-specific evaluations of domestic facilities that identify discrepancies in the physical security or material accounting programs are completely withheld from the public or scrubbed of virtually all useful information. Hence, any hard evidence that physical security is inadequate at facilities that possess weapons-usable materials is routinely withheld from the public. The rule of thumb is that, if a report reveals vulnerability, classify it. This policy conveniently permits the bureaucracies to cover up any evidence that these discrepancies indicate that their own safeguards programs are mismanaged. Secrecy thus protects the public, the plutonium, and the policymakers.

There is ample evidence that the Nuclear Regulatory Commission liberally interprets its secrecy authority to avoid litigation and permit licensees to continue operating facilities with deficient safeguards. In the fall of 1975, two internal documents were leaked to the Natural Resources Defense Council. These documents indicated that the Director of the Commission's Division of Safeguards was concerned that

"some, or even many of our currently licensed facilities [that possess strategic quantities of special nuclear

material] may not have safeguards which are adequate against the lowest levels of design threat we are considering. . . . The lowest levels . . . are, for an internal threat, one person and, for an external threat, three persons."⁸

The Director of the Division of Safeguards also stated that he was "not in a position to judge current safeguards as adequate or inadequate until we had logically structured both the safeguards problem and our approach to solutions."⁹

Citing these and other relevant documents, the Natural Resources Defense Council, on February 2, 1976, petitioned the Commission to adopt emergency safeguards measures, or, alternatively, revoke the licenses of facilities handling nuclear weapons-usable materials. Seven weeks later, on March 22, the Commission staff rejected the Council's request for emergency action, stating that "present safeguards programs of the licensees in question are adequate to provide a reasonable assurance of public health and safety and are not inimical to the common defense and security."¹⁰

Much later, the Council discovered that the staff had kept secret the most current review of physical security at the 15 licensed facilities. Five days prior to the Council petition an internal memorandum dated January 28, 1976, indicated that security at nine of the facilities was inadequate when judged against the internal threat by a single employee; all but one were inadequate when judged against an external assault by three persons armed only with hand-held guns.

The Commissioners, rather than simply lie, dragged their feet, refusing to rule promptly on the Council's emergency petition. The Commission simply waited for the staff to beef up physical security and awaited a new round of site evaluations, presumably trusting that these would reverse the

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previous findings. As it turned out, the Commission took a full year to rule because new site evaluations turned up further discrepancies. Finally, on February 27, 1977, the Commission determined that "all licensees had made significant improvements" and that "emergency safeguards . . . are unwarranted."¹¹

More of this fancy footwork occurred last fall when it became clear that the material accounting program at the naval reactor fuel facility at Erwin, Tennessee, was in disarray. This facility was unable to account for 22 kilograms of highly enriched uranium during one two-month inventory period. Rejecting the advice of the director of the Division of Nuclear Material Safety and Safeguards, the Commission majority refused to revoke the license, turn the facility over to the Department of Energy, and push the Department to build a new facility with improved physical security and material control and accounting. Instead, so as to permit continued operation without threat of further shutdowns for cleanout inventories, the Commission relaxed the material accounting regulations for this facility.

To compensate for this, the Commission required the licensee to beef up its physical security. This was done without any finding by the Commission that the new requirements were adequate or any record to support such a finding. When the Natural Resources Defense Council petitioned for a hearing, the Commission, by a 3-to-2 vote, rejected the advice of every legal office in the agency and promulgated an immediately effective rule designed to remove the Council's right to an adjudicatory hearing. These unprecedented efforts by the Commission majority to shield itself from disclosures about this embarrassing regulatory failure were described in Commissioner Bradford's dissent as "dishonorable and disgraceful. They leave one

wondering just where the Commission would stop in its efforts to avoid public scrutiny."¹²

An assessment of the adequacy of domestic safeguards must go beyond the identification of internal agency reviews and site evaluations. One must ascertain whether the agencies apply correct assumptions and the appropriate degree of conservatism in their own analyses and assessments. This is a formidable task, and requires an understanding of several key areas, including:

- intelligence regarding the possible existence and motives of potential threats
- the size and nature of credible threats
- the capability of the intelligence to identify threats before the attempted diversions occur
- the ease and likelihood of designing and fabricating crude nuclear devices
- the capabilities and limitations of response forces.

The guardians of the official secrets, of course, argue that data in each of these areas would assist a potential diverter, and the most pertinent information must remain classified.

The Departments of Defense and Energy both classify the threat levels used to judge the adequacy of physical security at their facilities, but the Commission published this "design basis" information as it relates to the facilities it licenses. We are not supposed to notice the inconsistency. Currently, the Commission is upgrading its regulations to require facilities handling atomic bomb material to protect against a conspiracy of two insiders and an external assault by about six persons armed with automatic handheld weapons. Classification of the Departments of Energy and Defense threat levels shields the Commission by preventing the public from realizing that Defense assumes an external threat

twice the size and better armed than that assumed by the Commission.

The Nuclear Regulatory Commission is currently arguing in court that the disclosure of some underlying estimates of what constitutes a credible threat would greatly assist the potential diverter. Yet, we are supposed to believe the publication of "design basis" threat levels used to judge the adequacy of safeguards at Commission-licensed facilities will not aid the diverter and therefore need not be classified. The real reason, I submit, is that when these data are combined and compared, they clearly demonstrate that current physical security requirements are inadequate.

The haphazard approach to classifying data has posed major problems. From the time of the Manhattan Project until the mid-1970s, the conventional public wisdom was that reactor-grade plutonium was unsuitable for nuclear weapons. Consequently, the civilian nuclear reactor fuel cycle seemed to present no danger with respect to weapons proliferation. This myth was allowed to persist despite early theoretical evidence that it was not true, followed by experimental evidence in 1957.

The government did not make it known that it had tested a weapon fashioned from reactor-grade plutonium until its nuclear fuel reprocessing policy began to shift some two decades later. Although representatives from nuclear power programs in several countries, including the International Atomic Energy Agency, were briefed privately in November 1976, the public was not informed until 1977.

There is a debate over how quickly or easily a terrorist, or an employee, can construct a clandestine fission explosive device on site at facilities handling bulk quantities of nuclear fuels of various enrichments and different chemical forms. Pertinent reports are tightly held secrets of the De-

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partment of Energy; their very existence was unknown to the public and Congress until a Nuclear Regulatory Commission staffer complained publicly that these reports were not given adequate weight by the Commission's Safeguards Division.

During the *Progressive* case in 1979, an American Civil Liberties Union researcher turned up a copy of a report—UCRL-4725—in the Los Alamos Scientific Laboratory library. The Civil Liberties Union, the *Progressive*, the Natural Resources Defense Council and several reporters received copies, which contained highly sensitive thermonuclear weapons design information. The Department of Energy, however, refused the Commissioners of the Nuclear Regulatory Commission access to the document even though the Commission, which is central to the implementation of U.S. non-proliferation policy, should have an understanding of what kind of weapons design information was made publicly available, and was, in light of the *Progressive* matter, considering revisions in its regulations concerned with the threshold for physical protection requirements.

According to Commissioner Ahearne, acting chairman of the Commission, the Department's reply was that

"It is our view that these documents contain no material directly related to the areas of responsibility of the Nuclear Regulatory Commission."¹³

This strict compartmentalization of national secrets not only inhibits government agencies from functioning effectively, it is also a prime contributor to the failure of Congressional oversight committees to expose the deficiencies in the agencies' safeguards programs.

These practices, however, do have their use in hiding failures. The game at the Nuclear Regulatory Commission

goes as follows: Faced with incontestable evidence that their program is deficient in one safeguards area, the Commission will generally confess. The Commission or the staff will always then say something misleading or unsubstantiated in another area. For example, if material accounting and control are demonstrably inadequate, the rejoinder is that the agency relies on physical security, details of which are secret. If physical security is shown to be inadequate, the Commission will argue that it knows of no group that constitutes a threat. If it is pointed out that the intelligence community cannot reliably identify threats smaller than "army size," the response is that nuclear weapons are difficult to construct. When confronted with evidence that low-yield weapons are easy to construct, the Commission will argue that, for safeguards purposes, it conservatively assumes that weapons can be easily constructed, and that it relies on physical security and material accounting. We come full circle: With each of these areas subject to classification and in some cases with the information held by agencies other than the Commission, Congressional committees, understandably, are unable to maintain effective oversight.

So far, this discussion has been limited to nuclear weapons proliferation and domestic safeguards, but secrecy abuses are common in the nuclear safety area as well. The excuse most often given for withholding key safety information from the public is that the information consists of "internal working papers," or "pre-decisional memoranda" which, if made public, would inhibit the staff from providing candid advice to the Commission decisionmaker. The real reasons, more often than not, are that it would embarrass the agency, threaten the development of civilian nuclear power, or create more work for the staff.

In sum, the federal government has repeatedly abused its classification au-

thority to deflect public concern, minimize nuclear fears and avoid embarrassments and debate. To my knowledge, no public official has ever been punished for these abuses. Instead, some of those most responsible have received commendations and promotions for their valuable public service. And those who have sounded the alarm—the whistle blowers—where their identity is known, have been rewarded with poor performance evaluations and removed from their jobs.

The cases mentioned here are unfortunately only the tip of the iceberg. Others are known, and still others remain a part of our national treasure of state secrets. Abuse of government secrecy is still rampant. Information is consistently withheld from the public and the Congress, resulting in poor decisions on critical nuclear issues and thwarting the democratic process. □

1. Atomic Energy Act of 1954, Sec. 141.b.

2. Victor Gilinsky, Commissioner, U.S. Nuclear Regulatory Commission, before League of Women Voters Education Fund, Silver Spring, Maryland, Nov. 17, 1980 (NRC News Release, Dec. 2, 1980).

3. U.S. Atomic Energy Commission, memorandum to the files (Jan. 27, 1970), p. 3.

4. U.S. Atomic Energy Commission, memorandum to Commissioners, "Loss of EURATOM Source Material" (Dec. 11, 1979), p. 2.

5. Central Intelligence Agency, memorandum, "Prospects for Further Proliferation of Nuclear Weapons" (Sept. 4, 1974).

6. Division of Security, U.S. Nuclear Regulatory Commission, "Classification Guide for Safeguards Information" (June 29, 1979), p. 1.

7. Executive Order No. 12065, Sec. 3.303.

8. Carl H. Builder, director, Division of Safeguards, NRC, to Ronald Brightsen re adequacy of current safeguards (Jan. 19, 1976), pp. 2-3.

9. Builder to Brightsen, p. 1.

10. U.S. Nuclear Regulatory Commission, "In the Matter of Licensees Authorized to Possess or Transport Strategic Quantities of Special Nuclear Materials," Dkt. Nos. 70-8, and others, memorandum and order (Jan. 21, 1977), p. 28.

11. "In the Matter of Licensees," p. 17.

12. U.S. Nuclear Regulatory Commission, "In the Matter of Nuclear Fuel Services, Inc.," Dkt. No. 70-143, memorandum and order (CLI-80-27), dissent of Commissioner Bradford (June 26, 1980), p. 1.

13. John F. Ahearne, Commissioner, NRC, before American Nuclear Society Executive Conference, New Orleans, Sept. 11, 1979 (NRC News Release, Sept. 18, 1979).