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## Secrecy and Public Issues Related to Nuclear Power

by

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A Paper Presented  
Before The  
American Physical Society  
1980 Spring Meeting

Washington, D.C.  
April 30, 1980

In 1954 atomic power first emerged from the wraps of military secrecy. Rather than a destroyer of men, the peaceful uses of atomic energy would be a bountiful provider for social progress. There was already beginning 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. [Atomic Energy Act of 1954, Sec. 141.b.; emphasis supplied.]

"The dissemination of information . . . to provide . . . free interchange of ideas and criticism . . . essential to . . . public understanding" echoes a tenet of our society: clearly, in a democratic society, an essential and minimum ingredient for meaningful exchange of ideas and criticism -- for free and open debate -- is access by all parties to all relevant facts. Only then can society make reasoned judgments of risks and, more importantly, reasoned decisions.

Unfortunately, this has not characterized the history of the debate over civilian nuclear power. The Executive Branch of the U.S. Government has time and time again withheld pertinent information from the public and from the Congress. This has distorted the content of the debate, undermined the validity of the decisions, and destroyed the credibility of the nuclear industry and government regulators. It is reasonable to conclude that the civilian nuclear power program could not have survived this long without the assistance of government secrecy.

Before discussing the effects of government secrecy, it is worthwhile to look back at the civilian nuclear power debate in the U.S. over the last three decades to examine the key role that public access to information has played.

Our Nation's long debate over civilian nuclear power has its roots in the late 1940s when the general public first were told of the biological effects of radiation. The information triggered a public discussion of the hazards associated with the testing of nuclear weapons in the atmosphere, resulting in a moratorium on nuclear testing in 1958 and then the Atmospheric Test Ban Treaty in 1963.

While the national debate related to the biological effects of radiation subsided with the signing of the Atmospheric Test Ban Treaty, the public concern did not. In the late 1960s, attention was focussed 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 power industry. It is reasonable to state that this public debate (similar to the debate stopping atmospheric tests) 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 AEC in June 1971 proposed new guidelines for the emissions from light water reactors (LWRs) which were the center of the controversy. These subsequently were included in the Atomic Energy Commission's (AEC's) regulations, as 10 CFR Part 20, Appendix I.

Prior to the 1970s, there had been little public attention to reactor safety policy and the manner in which the AEC made decisions. Then in 1971 serious questions were raised concerning the adequacy of the Emergency Core Cooling Systems (ECCS) in LWRs, when a Harvard student studying the economics of nuclear power ran across some obscure reports. At the time, the only evidence that the ECCS would work was in the form of computer studies. The reports, however, showed that in five small-scale tests (conducted in 1970 using a nine-inch-high reactor), the ECCS failed each time and in each case the results had not been predicted by a pretest computer simulation. Public exposure of this embarrassing problem forced the AEC to respond by revising its standards for the ECCS. A public challenge to these standards culminated in the infamous ECCS Rulemaking Hearing in 1972-73 which has been described as "a watershed in the history of the American nuclear safety controversy."

Overshadowed by concerns about the breeder and nuclear weapons proliferation during the mid-1970s, the reactor safety debate slipped from front page news until 36 seconds after 4:00 a.m. on March 28, 1979, when the feedwater pumps supplying water to TMI-2's steam generators tripped.

In June 1973, in the case Scientists Institute for Public Information v. AEC, the U.S. Court of Appeals for the D.C. Circuit ruled that the AEC had to prepare an Environmental Impact Statement (EIS) on the Liquid Metal Fast Breeder Reactor Program (LMFBR). This event triggered a national debate over the wisdom of the breeder being the

nation's priority energy program and, in Richard Nixon's words, the "best hope of meeting our energy needs of the future."

Also in 1973, the Consumers Power Company tried to initiate the use of plutonium commercially on a reload scale by introducing plutonium-containing fresh fuel in the Big Rock Nuclear Power Plant. The AEC concluding that there were "no significant hazards considerations," almost launched the plutonium economy with an amendment to the technical specifications of the Big Rock license with no public announcement. This course might have succeeded except for the watchful eye of a little-known citizens group -- the West Michigan Environmental Action Council. It was in a district court in Michigan that the AEC promised to prepare an environmental assessment of the widespread use of plutonium -- later to develop into a rulemaking hearing called GESMO (Generic Environmental Statement on the Use of Mixed Oxide Fuel in Light Water Reactors).

Public concern over the breeder and plutonium recycle exploded into a national debate over U.S. nuclear non-proliferation policy when, on the morning of May 18, 1974, the code message "The Buddha Is Smiling" was cabled to New Delhi. This signaled that a "peaceful" atomic explosion had been successfully detonated under the Rajasthan Desert in Western India. Although by 1970 it had become obvious to some U.S. officials that India was developing "peaceful" nuclear explosives, this event came as a shock to Congress and the American Public. The Congress responded by passing the Nuclear Non-Proliferation Act of 1978 (NNPA).

Nuclear non-proliferation policy became the subject of Governor Carter's first major foreign policy speech during his campaign for the presidency. Then, on April 7, 1977, as President, Carter announced a new U.S. nuclear power policy, which, among other things, "defer[red] indefinitely the commercial reprocessing and recycling of plutonium produced in U.S. nuclear power programs," and "restructure[d] the U.S. breeder program."

Atmospheric weapons testing, power plant emissions, reactor safety, nuclear weapons proliferation -- obviously these as with other national debates -- have been triggered by events or information made known to the public and forced by a concerned citizenry. That's what democracy is all about. The process can work where there is free and open debate. But the process can be stifled by the abuse of government secrecy power.

The first law of secrecy is that secrecy is proportional to the fifth power of the importance of the issue. As the greatest risk associated with civilian nuclear energy is that its spread will lead to the proliferation of nuclear weapons, it is here that U.S. government has gone to the greatest lengths to withhold information from the public. I will begin by outlining some of the issues that are important to a full appreciation of the proliferation problem, and demonstrate how government secrecy has warped and stifled debate.

Fundamental to any assessment of the risks of nuclear weapons proliferation is evidence, or lack thereof, of diversion of materials to the production of weapons. Is diversion a theoretical concern, or is there hard evidence of its occurrence?

Evidence of diversion is vital to an assessment of the adequacy of the International Atomic Energy Agency (IAEA) and the other elements of the international safeguards regime. Evidence of diversion provides a direct measure of whether the safeguards regime provides timely warning; that is, does it fulfill its function of sounding the alarm in time for countries to take appropriate action? It provides a direct measure of whether countries will apply adequate sanctions when the alarm is sounded. Evidence of diversion defines in real terms credible threats to facilities that possess nuclear weapons usable materials, both here and abroad, and consequently it is important to assess the adequacy of physical security and material accounting and control at these facilities. Despite its importance, the Executive Branch has a propensity for covering up any evidence of diversion.

Perhaps the most significant evidence of theft of atomic bomb material involved Israel and a U.S. company called the Nuclear Materials and Equipment Corporation (NUMEC). It began when a series of routine inspections by the AEC in 1964 and 1965 found that some 164 kilograms of highly enriched uranium could not be accounted for at the NUMEC facility. It is now known that the Central Intelligence Agency (CIA) and several Congressional committees are convinced that several atomic bomb's worth of highly enriched uranium was diverted to Israel.

In a decade of public assurances by the AEC that all significant inventory differences of special nuclear materials were due simply to routine measurement and bookkeeping errors,

the AEC never divulged the events surrounding this alleged diversion. In fact, the Johnson, Nixon, Ford, and Carter Administrations -- the CIA, AEC, Energy Research and Development Agency (ERDA), Nuclear Regulatory Commission (NRC), Department of Energy (DOE) -- all dutifully kept the secret. The shroud of official secrecy only began to unravel when James Conran, an employee in the NRC's Safeguards Branch, began complaining that information essential to the development of safeguards policy was being denied the NRC Staff by other agencies of the government.

Despite the fact that this case has now generated at least 10 separate investigations by such groups as the FBI, CIA, AEC, General Accounting Office (GAO), and four Congressional committees, nevertheless even today the full story of what happened is still being withheld by the CIA and the FBI.

A second celebrated case of diversion occurred in November 1968. This also involved a diversion to Israel, in this case some 200 tons of uranium ore. This diversion is believed to have been the work of Mossad, the Israeli intelligence service, and 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 wasn't to know for almost a decade. Seven months went by before EURATOM, the European Community's nuclear agency, ascertained that the uranium cargo of the Liberian freighter Scheersburg A had disappeared on the high seas. The U.S. AEC was not notified by

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EURATOM officials until December 1969, a year after the diversion. Instead of sounding the alarm, this diversion became a closely guarded secret by 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.

We now know from a secret 1970 AEC memorandum (declassified only when requested pursuant to the Freedom of Information Act (FOIA) some 9 years later) that "EURATOM had been searching assiduously for a means to apply sanctions . . . but that they so far had been unable to do so." While German nationals were involved in the diversion, it was noted by a EURATOM official that it would be politically very difficult for Germany to apply sanctions against Israel.

Either unaware or still covering up the NUMEC affair, a secret memorandum to the AEC Commissioners, dated December 11, 1969, noted that:

[I]f 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 U.S., the U.K., 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.

In sum, we have a case where, for a decade, the IAEA, the U.S. and European bureaucracies, and their nuclear establishments spoonfed the public the virtues of the so-called "peaceful atom," while at the same time 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.

Is all this ancient history, or the status quo? The IAEA Board of Governors in 1978 voted not to release the IAEA's Special Safeguards Implementation Reports (SSIRs), their own annual internal assessments of the adequacy of their own safeguards program. While the U.S. voted for release of the report for 1977, nevertheless U.S. assessments of the adequacy of the international safeguards regime are routinely classified, including assessments of these SSIRs.

Information related to nuclear weapons development in other countries, including national intelligence analyses of the intentions of other governments, procurement of equipment, preparations for tests, is essential to any public assessment of the proliferation risks. And yet here lies some of the Administration's most closely guarded secrets -- "Top Secret, Compartmented" no less. Details of the current status of the programs in Pakistan, India, Taiwan, South Korea, Argentina, South Africa, Brazil -- the principal countries of concern -- are State secrets, although some tidbits are the subject of an occasional bureaucratic leak. The U.S. Government has not released, for example, 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. Much of the details of ongoing analyses by the U.S. of the September 22, 1979, event in the South Atlantic remain classified.

One of the more interesting leaks occurred when NRDC, interested in learning what information the AEC had before it when considering its response to the Indian explosion, sent an FOIA request to the Department of Energy. This request turned up documents originating in the CIA and the request was referred to that agency. In January 1978 the NRDC received from the CIA a copy of an expurgated version of a 1974 "Special National Intelligence Estimate on the Proliferation of Nuclear Weapons." The CIA officer had marked two paragraphs for release, but, as the result of a clerical error, we received all but those two paragraphs.

This report revealed for the first time in writing that the CIA believed that Israel had acquired nuclear weapons. It also indicated the CIA'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 on Nuclear Weapons Proliferation" had heretofore never been disclosed to the Congress or the public. One Congressional staffer, deeply involved in the non-proliferation debates in the Congress during 1976 and 1977 and the passage of the Nuclear Non-Proliferation

Act of 1978, noted that NRDC had obtained more pertinent information through this bureaucratic mistep than Congress had been able to obtain through its own exhaustive investigations and hearings. (Incidentally, the CIA still has not released the two paragraphs that were the subject of the original FOIA request.) It is hard to know what purpose our intelligence agency is serving when even our decisionmakers are denied the most pertinent intelligence analyses.

In theory, the principle which underlies the policy for 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." (NRC Classification Guide for Safeguards Information.) Such State secrets include information:

- 1) which could facilitate assistance to, frustrate or delay the detection of, or the response to, the attempted theft or diversion of atomic bomb materials;
- 2) which could enhance the credibility or frequency of threats;
- 3) which could facilitate carrying out a successful sabotage mission or successful theft or diversion of atomic bomb materials.

Accordingly, detailed reports of attempted or successful penetration of nuclear facilities and attempted or successful diversion or theft of special nuclear material within or from a nuclear facility are also classified as "National Security Information." Schedules and the itinerary of specific shipments of special nuclear material are classified until the shipment reaches its destination.

The NRC recently tried to classify even the routing of spent fuel shipments, even though anyone could readily ascertain the routing information by following the first shipments as they left the reactor site. Fortunately, the Staff was overruled by the Commission in this effort.

The above policy guidance is so vague that the phrase "to provide the maximum possible information to the public" gets lost in the translation, as does a requirement under President Carter's Executive Order 12065, on the classification of National Security Information, that "the need to protect such information may be outweighed by the public interest in disclosure. . . ." (Section 3.303.)

Safeguards and security personnel in the bureaucracies interpret the above policy to mean that any site-specific evaluations of domestic facilities that identify discrepancies in the physical security or material accounting programs are to be withheld from the public in their entirety or, at a minimum, scrubbed of virtually all useful information. Hence, any hard evidence that the physical security is inadequate at facilities that possess weapons usable materials is routinely withheld

from public scrutiny. Diversion and sabotage vulnerability studies are routinely classified as "National Security Information" and are reviewed for declassification after 7 years. The rule of thumb is that, if it reveals vulnerability, classify it. This policy conveniently permits the bureaucracies to cover up any evidence that these discrepancies are indicative of the fact that their own safeguards programs are mismanaged. Secrecy thus protects the public, the plutonium, and themselves. Similarly, the NRC liberally interprets its secrecy authority to avoid litigation and permit licensees to continue operating facilities with deficient safeguards.

A case in point occurred in the fall of 1975, when two internal documents were leaked to NRDC that indicated that the Director of the NRC 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." The Director of the Division of Safeguards stated further 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."

Citing these and other relevant documents, NRDC, on February 2, 1976, petitioned the NRC to adopt emergency safeguards measures or, alternatively, revoke the licenses of facilities handling nuclear weapons usable materials. Seven weeks later, on March 22, the NRC staff rejected the NRDC 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." It was only much later that we discovered that the Staff had kept secret the most current review of the adequacy of the physical security at the 15 licensed facilities. Five days prior to the NRDC petition an internal memorandum dated January 28, 1976, indicated that the physical security at 9 out of 15 licensees was inadequate when judged against the internal threat consisting of a single employee; and all but one were inadequate when judged against an external assault consisting of 3 persons armed only with hand-held weapons -- pistols, rifles and shotguns.

The Commissioners, rather than simply lie about the adequacy of the safeguards at these facilities, dragged their feet, refusing to rule on the NRDC emergency petition for a full year. The Commission simply waited for the Staff to beef up the physical security at these facilities and awaited a new round of site evaluations, presumably trusting that the new evaluations would reverse the previous findings. As it turned out, the Commission took a full year to rule because the site evaluations turned up new discrepancies. More fixes and second round of

evaluations were deemed necessary. Finally, on February 27, 1977, the Commission determined that "all licensees had made significant improvements" and that "emergency safeguards . . . are unwarranted."

As assessment of the adequacy of domestic safeguards must necessarily go beyond the identification of internal agency safeguards, reviews and site evaluations. One must ascertain whether the bases for agency judgments of adequacy are themselves adequate. In other words, do the agencies apply correct assumptions and the appropriate degree of conservatism in their own safeguards analyses and assessments? To answer these questions is a formidable task, and requires an understanding of several key areas, including (1) intelligence regarding the possible existence and motives of potential threats, (2) the size and nature of credible threats, (3) the capability of the intelligence to identify threats before the attempted diversions occur, (4) the ease and likelihood of designing and fabrication of crude nuclear devices, and (5) the capabilities and limitations of response forces. Again, the guardians of the official secrets argue that data in each of these areas would assist a potential diverter, and therefore the most pertinent information must remain classified.

With regard to threats, the Department of Defense (DOD) and DOE both classify the threat levels used to judge the adequacy of physical security at their facilities possessing nuclear weapons usable material. The NRC, on the other hand, publishes in its regulations the threat levels that are used to judge the adequacy of safeguards at NRC-licensed facilities, and states that their security is comparable to that required by



DOD and DOE. We are not supposed to notice the inconsistency. The threat levels used by NRC until last month -- if you can believe it -- consisted of one insider acting alone to pilfer material, or an external assault of several (up to 3) persons armed with automatic hand-held weapons. The NRC is currently upgrading its regulation to require facilities handling atomic bomb material to protect against a conspiracy of 2 insiders and an external assault of a small group (up to about 6 persons), again armed with automatic hand-held weapons.

The NRC and the other agencies have persistently refused to reveal selected estimates made by outside consultants as to what actually constitutes a credible threat. The NRC is currently arguing in court that this information would greatly assist the potential diverter. Now, we are supposed to believe that estimates of what constitutes a credible threat will assist the potential diverter and must be classified, while the design basis threat levels used to judge the adequacy of facility safeguards will not be of such assistance and are therefore not classified. The real reason, I submit, that the former is classified is because, when combined with the latter, it clearly demonstrates that current NRC safeguards are inadequate.

Information revealing the ease and likelihood of fabricating clandestine nuclear weapons falls under the definition of Restricted Data. All government-generated information of this type, and some that is not, is Classified. The haphazard approach taken in classifying these data has had some major drawbacks.

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, at least very efficient ones, and consequently the civilian nuclear reactor fuel cycle posed no danger from the standpoint of nuclear weapons proliferation. The U.S. Government allowed this myth to persist despite early theoretical evidence that this was not true and experimental evidence of this fact 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 IAEA, were briefed privately in November 1976, the public did not learn of this until a year later.

There is a debate over the ease with which a terrorist, or an employee, can quickly construct a clandestine fission explosive (CFE) device onsite at nuclear facilities handling bulk quantities of nuclear fuels of various enrichments and different chemical forms. Pertinent reports are tightly held secrets of the DOE. The very existence of these reports was unknown to the public and the Congress until NRC staffer Jim Conran complained publicly that these reports were not given adequate weight by the NRC's Safeguards Division.

Responsibility for nuclear weapons design data is within the purview of DOE. Members of the NRC's staff responsible for developing and assessing the adequacy of safeguards are considered as not having a "need to know." In fact, John Ahearne, now acting Chairman of the NRC, complained in a September 19, 1979, speech

that even he was denied this information. Ahearne noted that none of the Commissioners had either designed nuclear weapons nor seen an explosion, and only one Commissioner felt confident that he was able to design a weapon. You may recall that in 1979, while assisting the ACLU in the Progressive case, Dimitri Rotow found a copy of UCRL-4725 in the Los Alamos Scientific Laboratory library, which is open to the public. This report, contained highly sensitive thermonuclear weapons design information. NRDC, the ACLU, and several reporters were given copies. The DOE, however, refused Commissioner Ahearne access to the document even though the NRC (a) is central to the implementation of U.S. non-proliferation policy under NNPA, (b) should have an understanding of what kind of weapons design information has been publicly available, and (c) was in the process of considering what revisions would be appropriate for NRC regulations which address the threshold for physical protection requirements in light of the Progressive matter.

According to Commissioner Ahearne, the DOE 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 . . ."

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

The game that is played at the NRC goes as follows: If backed against the wall with incontestable evidence that their program is deficient in one safeguards area, the NRC will generally confess to the deficiency. The Commission or the Staff will always, however, say something misleading or unsubstantiated in another area. For example, if material accounting and control is demonstrably inadequate, the NRC will argue that it relies on physical security. If physical security is shown to be inadequate, the NRC will argue they know of no known group that constitutes a threat. If it is pointed out that the intelligence community cannot reliably identify threats smaller than "army size," the NRC will argue nuclear weapons are difficult to construct. When presented with evidence that low-yield weapons are easy to construct, the NRC will argue that, for safeguards purposes, they conservatively assume that weapons can be easily constructed, and that they rely on physical security and material accounting. In other words, 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 NRC, it is little wonder that Congressional committees are unable to maintain effective oversight.

A recent example of this sort of 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. You may recall that this facility was unable to account for a large amount of highly enriched uranium (the

actual inventory difference is classified). Rejecting the advice of the Director of the Division of Nuclear Material Safety and Safeguards, the Commission refused to revoke the license and hand the facility over to DOE. In order to permit continued operation of the facility 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 the physical security. This was done without any finding by the Commission that the new physical security requirements were adequate under the circumstances or any record to support such a finding. When NRDC petitioned the NRC for a hearing in this matter, the petition was classified. The DOE response was to reverse its policy of declassifying inventory differences after six months or the completion of the investigation.

So far, I have limited the scope of this discussion to nuclear weapons proliferation and domestic safeguards. Secrecy abuses however are commonplace in the nuclear safety area as well. Here the justification is rarely national security, exceptions being cases like TMI where the government felt duty bound not to reveal the full extent of the hazard, or their own lack of knowledge, to avoid causing panic. By and large, the excuses most often given for withholding key safety information from the public are that the information consists of "internal working papers," or "predecisional memoranda," which if made public would in the future inhibit the Staff from being candid in providing 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. A case in point: the NRC used to prepare what were called "Technical Safety Activities Reports." These reports, updated quarterly, itemized and discussed two hundred or so unresolved safety issues. These reports were handled as "internal working papers" and never revealed to the public, or even the Atomic Safety and Licensing Boards, until Bob Pollard revealed their existence when he resigned from the NRC Staff in early 1976. Until they were flushed out in public, these unresolved safety issues were not discussed in the reactor Safety Analysis Reports. Needless to say, some of the NRC's licensing boards were outraged.

Another celebrated case concerned a 1972 memorandum from Dr. Stephen H. Hanauer, a senior official of the AEC, to nine other senior AEC officials. Dr. Hanauer wrote:

Recent events have highlighted the safety disadvantages of pressure-suppression containments. While they also have some safety advantages, on balance I believe the disadvantages are preponderant. I recommend that the AEC adopt a policy of discouraging further use of pressure-suppression containments, and that such designs not be accepted for construction permits filed after a date to be decided (say two years after the policy is adopted).

This memorandum was exceedingly significant because it referred to the containment approach used by General Electric boiling water reactors. One of the responses to this memorandum was from Joseph Hendrie. Mr. Hendrie at the time he wrote the memo was the Deputy Director of Technical Review for Licensing at the AEC. He later became Chairman of the NRC. Following TMI, Hendrie lost the Chair but

remains on the Commission. In the first paragraph of Hendrie's response, he states that he in essence agrees with Hanauer's judgement that the dry containments are superior to the G.E. type containments. In the second paragraph, he gives his reasons for not accepting Hanauer's recommendation that the pressure-suppression containments no longer be used. Hendrie states:

Reversal of this hallowed policy [acceptance of the pressure-suppression containments], particularly at this time, could well be the end of nuclear power. It would throw into question the continued operation of licensed plants, would make unlicensable the GE and Westinghouse ice condensor plants now in review, and would generally create more turmoil than I can stand thinking about.

In other words, Hendrie's statement indicates that he was more interested in not upsetting the applecart at the AEC or hurting the financial picture of G.E. and Westinghouse than he is in defending the public health and safety.

This exchange of memoranda was kept secret for six years, and was not revealed until after Hendrie had been nominated to be Chairman of the NRC.

In summary, we have seen how the Federal Government, in shaping and promoting its nuclear policies, has time and time again abused its classification authority to deflect public concern, minimize nuclear risks, and avoid embarrassments and debate. To my knowledge, not a single 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, even today. Information is being consistently withheld from the public and the Congress, resulting in poor decisions on critical nuclear issues and thwarting the democratic process.