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POST-TMI DEVELOPMENTS IN U.S. NUCLEAR POWER
SITING AND LICENSING POLICIES

REMARKS BY

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Introduction

Some two and one-half years after the accident at Three Mile Island, its regulatory consequences continue to exert a dominating influence on the pace and shape of the American nuclear power program. Today, I should like to share with you an overview of post-TMI developments in the sphere of power plant siting and licensing, and to put forth some personal views on where we appear to be heading in efforts to reshape the U.S. regulatory program. Then, I will venture to suggest certain of the lessons we ought to have learned in the U.S., and possible impacts which all of this ferment in my own country may have for nuclear programs elsewhere. I do this with an acute sensitivity that, when we meet to assess nuclear developments at the next INLA conference two years from now, hindsight may well prove me to be a dubious prophet.

The Regulatory Response to TMI - Siting and Licensing

My remarks today -- in keeping with my role on the Conference agenda -- are confined to regulatory developments as they relate to siting and licensing. Moreover, I am

excluding from these remarks matters dealing with emergency planning, since this is to be covered in another Conference session. It should be evident, however, that the latter bear an important relationship to the siting and licensing of new power reactors in the post-TMI regulatory environment -- indeed, to the ability of previously licensed facilities to continue in operation.

Even with these imposed limitations, the scope of my subject would warrant volumes for its adequate treatment, rather than the short time we have today. A glance at the Appendices to this paper -- which list the principal steps taken by the Nuclear Regulatory Commission, and some related legislative actions in the Congress -- makes it clear that although the nuclear power side of the U.S. program has been relatively dormant these past 30 months, the regulatory arena has been filled with frenetic (and not always productive) activity. Thus, I am going to be selective in my remarks, recounting in summary fashion what I believe to be the major regulatory (and legislative) actions in terms of their future implications, and leave you to a reading of the Appendices for a more comprehensive picture.

A further word about the two Appendices to this paper. They supply not only a chronological summary of agency and legislative measures bearing on siting and licensing, but

also an appreciation of the shifting focus of the post-TMI regulatory measures -- from an initial emphasis on licensing constraints to the later push for licensing expedition. This shift in focus matched the change in political mood in the United States when a licensing paralysis emerged as the most visible product of the new regulatory requirements. Indeed, the "fever chart" aspect of these Appendices -- to which I will return later in my remarks -- is one of the more interesting regulatory developments of the last two and one-half years.

As indicated, I intend in these remarks to deal primarily with those measures which are likely to have a longer range policy significance for the U.S. program. Those measures, I might add, also hold particular interest -- indeed, potential for impact -- for nuclear programs outside the U.S. As such, they underline a further theme of these remarks -- the need for greater international collaboration and advance consultation than has hitherto been the case in nuclear regulatory matters.

Proposals for a New Approach to Siting

First in time, and in the counter-reaction which it elicited from outside the United States, was the advance notice of rulemaking issued by the Nuclear Regulatory Commission in July of 1980 inviting public comment on NRC staff recommendations for changes in policy and regulatory

practice governing the siting of nuclear power reactors. In substance, the Commission staff had recommended the establishment of siting requirements that were decoupled from design considerations, with the view that population density and distribution criteria be used to reduce accident risks. Driven by the supposed "lessons" of TMI -- particularly those relating to emergency planning for accidents -- this proposal also anticipated Congressional legislation, enacted shortly thereafter, directing the NRC to promulgate siting regulations which, among other things, specify "demographic criteria for facility siting, including maximum population density and population distribution for zones surrounding the facility, without regard to any design, engineering, or other difference among such facilities" (P.L. 96-295, Sec. 10880) Appendix 2, infra).

The response from the U.S. nuclear industry was overwhelmingly critical. Equally critical -- and even more alarmed -- was the reaction of the nuclear community outside the United States to an approach which would separate siting from engineered safety features. There was acute concern abroad about the regulatory philosophy underlying this U.S. proposal. There was companion concern that a basic regulatory initiative of this type -- having obvious direct ramifications for non-U.S. nuclear programs -- was taken without advance word to nuclear authorities abroad or any

consultation with them to gain the benefit of their technical views and of any special problems created by this sharp change in regulatory direction. It was not that U.S. regulators were obliged to stay their hand if they believed new safety measures were needed; rather, what rankled was U.S. insensitivity to the need for a "no surprise" doctrine among regulators dealing with a common technology and issues of mutual interest. Our friends abroad thought they had something of technical merit to contribute to U.S. thinking; and it was plain that the demographic considerations which afforded such seeming latitude for this type of regulatory action in the United States were, for the most part, not available in more densely populated countries elsewhere.

The distillation of this foreign concern is best expressed in the "Statement Concerning the Licensing Aspects of Nuclear Power Plant Siting" issued by the Nuclear Energy Agency (NEA) of the OECD in January of 1981. Pointedly remarking that, if the proposed NRC siting criteria were adopted, the U.S. would be pursuing an approach different from that followed by most NEA member countries, the Statement urged the following -- for its audience in the U.S., as well as for reassurance elsewhere:

- that site selection alone should not replace engineering and operating measures to achieve safety;
- that selection of the site is governed by practical conditions in the country concerned (including population

density, availability of land, etc.); and that in some countries engineered features are (quite appropriately) considered as site safety factors;

- and that, it is the relationship between siting, emergency planning and engineered safety provisions which enables regulators to judge the overall safety of a nuclear plant.

In keeping with its multinational sponsorship and its basic message, the Statement concluded with a plea for greater international cooperation in further efforts to improve the definition of the aforesaid relationship.

Although the NRC disclaimed any necessary applicability of the regulatory approach it was considering to nuclear programs outside the U.S., it seems clear that the groundwork laid for the launching of this "domestic" siting initiative fell well short of what sensitivity -- and common sense -- called for; and, of parallel importance, that opportunities for meaningful international interaction at both the policy and the technical level had been sadly neglected. Those lessons left their mark -- on the American nuclear industry at least -- when the next major regulatory initiative was mounted by the NRC.

The Degraded Core Rulemaking Proceeding.

The siting policy proposals of the NRC staff (which, at

this writing, have yet to be embodied in a formal Commission rulemaking proposal and which, reportedly, are undergoing significant staff modification) would apply only to future nuclear power plant applications in the United States. A Commission regulatory course with potentially far greater impact for U.S. nuclear power plants -- and for those elsewhere -- is embodied in the so-called "degraded core" rulemaking proceeding, for which massive preparatory efforts are now underway within the NRC and the industry.

In a sense, this proceeding is the regulatory capstone to the events at TMI. The NRC objective is to determine to what extent nuclear plants should be designed to deal more effectively with degraded core and core melt accidents. In the Commission's notice of proposed rulemaking (issued on October 2, 1980), it listed some 18 areas of interest dealing with analysis and reactor design improvements which, if applied generally, could result in extensive changes not only to facilities which are in the planning stage or are now being built, but to operating reactors as well. The practical stakes in the outcome of this proceeding are truly enormous.

The U.S. nuclear community has mounted a collaborative effort for development of a data base which will provide the predicate for industry submissions in the forthcoming rule-making hearing (scheduled to begin sometime in 1983).

Organized under the aegis of the Industry Degraded Core Rulemaking program (IDCOR), this multi-million dollar technical effort includes the involvement of not only a wide variety of U.S. domestic interests, but of major foreign nuclear organizations as well. The recognition is clear, outside the United States as well as within it, that any new requirements resulting from this proceeding could have far-reaching regulatory, operational and cost ramifications.

Safety Goals.

The foregoing, however, is not the only noteworthy aspect of the regulated industry's approach to degraded core rulemaking. The U.S. nuclear industry has taken the position that regulatory action on this matter should await the establishment by the NRC of quantitative safety goals and a methodology for assessing conformity with them.

Nuclear power "safety goals" -- long an idealized aim of the U.S. nuclear community -- has figuratively come of age in recent months. It is being aggressively pursued by the industry, and the regulators have also begun to take it seriously. The pace and priorities of the two groups are, however, markedly different. The industry, as I will describe

in a moment, is forging ahead. The regulators, on the other hand, have fixed an elaborate internal and external process for addressing the matter; and, thus far, NRC has declined to defer degraded core rulemaking until safety goals have been established.

In my view, these two regulatory efforts and the preparations being made for them provide a practical insight on the upcoming battle to reshape the substance of the U.S. nuclear regulatory program. Safety goals, in particular, would add a wholly new dimension to nuclear energy regulation. This is reflected in the cautious approach to them adopted by NRC and the mounting opposition from nuclear critics.

In contrast, the U.S. nuclear industry is seeking to force the pace of regulatory policy action and has already come forward with specific safety goal proposals. These are contained in a recent report by the Committee on Reactor Licensing and Safety of the Atomic Industrial Forum. ("A Proposed Approach to the Establishment and Use of Quantitative Safety Goals in the Nuclear Regulatory Process," May, 1981). As the opening salvo in what will surely be a fiercely disputed regulatory contest, that proposal is worth summarizing here.

The Committee's proposal calls, first, for the establishment of a set of principles around which specific quantitative safety goals can be set. In essence: no individual should bear inordinate risk; societal risks should be commensurate with benefits and consistent with risks applicable to other technologies; and risk reduction resources should be allocated in a way which weighs costs as well as benefits.

As to the individual risk goal, the Committee proposes that a hypothetical person living in the vicinity of a nuclear power plant not be exposed to "a significant increase in the individual's annual mortality risk". The value suggested is equivalent to a 1/1000 increase in this average individual risk -- a level equal to the risk from exposure to normal background radiation in the natural environment. Studies have shown that such a risk would be significantly lower than that for individuals living near other industrial facilities, such as chemical plants, hydroelectric installations and coal-fired generating plants.

For society at large in the vicinity of a nuclear plant, the AIF Committee proposes that the population not be exposed to a risk exceeding a small fraction of the average risk from all forms of accidents. The suggested value here is less than one statistically estimated fatality per year per 1000 MW(e).

The industry proposal goes on to recommend that once the primary individual and societal goals are met, any further marginal improvement in safety should be balanced against the total cost of the change of plant design or operating procedures. The suggested cost-benefit value is \$100 per man-rem, or the equivalent of one million dollars per life saved. This, of course, is a highly sensitive point -- easily misunderstood and open to distortion. Accordingly, it is emphasized, that this is not to be taken as a value assigned to human life; rather it reflects a value which is generally in the median range of what is presently achievable in public risk reduction for a given expenditure for a variety of industries and regulatory approaches.

The subject proposal recognizes the uncertainties involved in probability risk analysis (PRA). With those in mind, it recommends a secondary criterion for limiting the probability of large-scale fuel melt accidents: 10^{-4} per reactor-year, a statistical recurrence interval of about one per several decades. Finally, as with Rasmussen and others working with PRA, it is not recommended that this approach supplant present regulatory criteria and requirements; rather, it should be phased in, with initial emphasis on examining the existing body of regulations to establish generally the level of safety provided and to identify areas where changes are warranted.

The attention that I have devoted to this industry effort is quite deliberate. The safety goal undertaking is going to be pressed vigorously, and its basic premises will be reflected in industry positions not only on degraded core rulemaking but on a variety of other matters where NRC is considering new requirements or reconsidering existing ones. One of the more important of these, I might add, is the burgeoning effort by NRC to re-review in the light of current regulatory requirements the safety adequacy of facilities licensed many years ago (about which I will have more to say in a few moments). The point I wish to impress today, is that, from a regulatory and from a broader social standpoint, the safety goal "offensive" is one of the more important developments in the U.S. -- and its outcome could have significant implications for nuclear regulatory programs elsewhere.

The Licensing Stalemate - A Shift in
Regulatory Direction

Earlier in these remarks, I observed that the catalogue of regulatory changes following the Three Mile Island accident (as reflected in Appendices 1 and 2) had some of the characteristics of a hospital "fever chart." It was to be expected -- and, indeed, an exercise of safety responsibility -- that there would be a searching reexamination of the

regulatory process and its underpinnings following an event such as Three Mile Island. True, it was, that the basic underpinning of the regulatory approach to nuclear safety -- design and engineered safeguards providing "defense-in-depth" -- had worked at Three Mile Island. Equally true was the fact that, despite media (and NRC) alarms that now seem badly exaggerated: no containment was breached; no large-scale escape of radiation occurred; no persons lost their lives -- and, indeed, no one was exposed to injurious radiation levels. Nevertheless, there were important TMI lessons to be learned and applied -- particularly in the areas of operator training, facility management and man-machine interface.

And, these areas did become the focus not only of regulatory action but of pre-emptive industry steps as well, through such new institutional structures as the Institute for Nuclear Power Operations (INPO) and the Nuclear Safety Analysis Center (NSAC). However, as reflected in the appended regulatory "menu," the range and degree of change -- both imposed and proposed -- began to take on the character of the unfocused and open-ended.

As a practical matter, the heaviest regulatory blow fell on the rather substantial universe of nuclear plant applications awaiting licensing approval -- including

facilities that were fully constructed and seeking operational authorization. A de facto moratorium was placed on the issuance of new operating licenses and construction permits -- indeed, even on their active reviews -- pending the adoption and implementation of measures which would apply the supposed "lessons learned" from TMI. While, as indicated, a number of the resulting steps clearly met that test, too many others did not in the view of those who were impacted. As they and others saw it, the profusion of new licensing requirements lacked prioritization vis-a-vis safety needs, a sense of balance with other public policy considerations and, in some important areas (as already remarked), even a solid basis for the major and retroactive changes being instituted.

What is indisputable is that the licensing process came to a starkly-visible complete standstill.

Paradoxically, however, this licensing stalemate, more than anything else, has been providing a catalyst for constructive change. This is the other aspect of the "fever curve" which one can see defined in the appended listing of regulatory and legislative changes -- with the rough demarcation point coming in late 1980 and early 1981.

The reasons for this are very practical. From the standpoint of political sentiment, the U.S. national elections of 1980 brought to office a President openly supportive of nuclear power and produced a substantial increase in his party's Congressional strength. Quite apart from the shift in political direction, was another fact: For the first time in the history of the American nuclear program, fully constructed nuclear power plants were sitting idle -- and in rather substantial numbers -- as a result of regulatory paralysis. This had a galvanizing effect on the shaping of public and political attitudes across party lines, since the enormous costs which these delays entailed (on the average, a million dollars a day for delayed operation of each plant, with totals running up to 3 billions of dollars) were something clearly understood by the public and its elected representatives. There was, moreover, the further recognition that it would be the consumers of electricity who would bear these costs.

As a result, initiatives were mounted within the Congress and by NRC to curb some of the excesses and anachronisms of the licensing process and to instill some measure of forward movement. The first eight months of 1981 have seen a series of NRC steps and proposed steps which would accelerate licensing reviews and impose an added -- albeit modest -- measure of discipline and time limitation on the hearing phase of the licensing process.

More consequential, has been the shift in Congressional sentiment and the resulting disposition to compel regulatory action. This is readily apparent when one compares the measures contained in the NRC's 1980 authorization legislation (with its emphasis on licensing and other regulatory constraints) along side the provisions in this year's authorization legislation. Most notably, the Congress is about to arm NRC with meaningful authority to issue so-called "interim operating" licenses -- that is, licenses authorizing operation of a nuclear power plant following the completion of safety reviews but prior to the conduct of licensing hearings. That "pioneering" measure, and the broad standard for its invocation (in essence, a completed plant standing idle) goes well beyond what Congress has been prepared to do in the past and, more than anything else, should help to break the stalemate in operating license issuances.

The Congress is also acting to "overturn" by legislative amendment the holding of a federal appeals court late last year (Sholly v. NRC) which would have prevented the Commission from following a nearly 20-year old practice of authorizing amendments to issued licenses without any prior public hearing when the NRC determines that the amendment involves "no significant hazards consideration". This year's legislation will additionally direct an evaluation of the licensing

process by an outside panel with a view to the current system's effectiveness, predictability, efficiency and stability; and it will call for a report on that evaluation to the Commission and to the Congress, with recommendations for change.

In the sphere of previously licensed reactors and their re-review against current regulatory requirements, Congressional sentiment has undergone a dramatic turnaround. Contrast, if you will, the elaborately burdensome directive to NRC and the industry contained in the so-called Bingham Amendment of last year (Appendix 2, p.11), with this year's House action which would bar NRC from spending any money to implement the Bingham Amendment (App. 2, p. 14).

The crucial stages in this process of substantive and procedural change still lie ahead. Its "real world" outcome, moreover, will be determined more than anything else by the attitudes -- and votes -- of the "new" Nuclear Regulatory Commission (i.e., the Commission as reshaped by the appointments of President Reagan). Change at NRC there certainly will be; it is too early, however, to be able to calibrate the degree and the pace of that change.

Here, however, some mention should be made of the broader policy context within which the Commission will be functioning. The NRC, "independent" though it may be, will not be acting

within a political void. It is reasonable to anticipate that policymaking in the areas that I have been discussing, and in other areas of regulatory reassessment, will be influenced by the national policy perspective on energy supply and the political climate created by the new Administration in Washington.

While we still await the specifics of the nuclear program changes that the new Administration will press for, several important currents have already emerged. First, there has been an unmistakable displacement of the Carter Administration's "last resort" approach to nuclear power by a new realism which speaks of nuclear energy as needed, economical and acceptably safe. The change in tone and substance permeates the recently issued National Energy Policy Plan; and it also characterizes President Reagan's July statement on U.S. non-proliferation policy.

Further, it is a near certainty that streamlining of the current nuclear licensing process will be an important item on the Administration's agenda for change. Reform legislation -- authorizing single-stage licensing (i.e., one-step approval of both construction and operation) and emphasizing pre-approval of standardized facility designs and of power plant sites -- will likely be considered by the Congress next year. As an unflagging optimist, my hope would

be that I could describe such changes as an accomplished fact by the time of our next INLA meeting. And, it may even be that certain aspects of this licensing streamlining in my own country will prove instructive for programs outside the U.S. that have become as mired in delay as ours has by virtue of "patchwork" licensing.

Any new political approach to nuclear regulation, should also be set in the context of the even more pervasive reassessment by the Reagan Administration of the role of regulation generally in American society. An Administration policy commitment has been made to attacking regulatory delays, costs and unsupportable requirements, whether in the health and safety area or in that of economic regulation. A companion emphasis has been placed on applying cost-benefit principles in assessing the value of existing regulations and determining the need for additional requirements. This effort, headed by the Vice-President of the United States, and carried out by a Presidential Task Force on Regulatory Relief, has been given very high public visibility. Although NRC is not an agency under direct Presidential control, its policy perspective will inevitably be affected by the effort to shape a new national climate for regulation -- particularly, when it is reenforced by a strong constituency for nuclear regulatory reform within the Congress.

I am not prophesying a miraculous regulatory transformation. What we are witnessing is a change in direction, with some prospect for a more rationale regulatory environment. And, I would caution, meaningful change will face determined resistance -- within the Congress, in agency administrative proceedings and, ultimately, in appeals to the courts.

As regards the last mentioned, I would take note of a decision by the U.S. Supreme Court earlier this year ruling that the Occupational Safety and Health Administration (OSHA) does not have to prove that the benefits of worker safety regulations outweigh their costs. While the Supreme Court's ruling applies only to one health and safety statute, it does sound a warning that the growing movement to apply cost-benefit concepts in the regulatory sphere may require Congressional involvement. My own view is that a statutory amendment is not needed to apply cost-benefit principles to nuclear safety requirements -- but that, ultimately, the Congress will speak to the matter.

Some Lessons From the Post-TMI Experience

Just as we professed in my country to learn the lessons of the accident at Three Mile Island, I think that there are also lessons to be learned from the regulatory response to

that event. And, here also, I am going to be selective -- but, hopefully, not to the point of oversimplification.

The primary lesson we should have learned is that simply throwing new regulatory requirements at every supposed problem is a risky course. It risks the misallocation of finite technical and financial resources -- something which many believe is an affliction from which both the regulators and the regulated already suffer; and there is the well-placed concern -- within the NRC as well as the industry -- that the barrage of new requirements which NRC mounted after TMI can actually prove counterproductive to nuclear safety. Indeed, a report this July by NRC's inspection and enforcement staff found, on the basis of a survey of a dozen nuclear utilities, that "the pace and nature of regulatory actions [since TMI] have created potential safety problems . . . [the] full significance of [which] may have been underestimated" by NRC.

But how then are the regulators to measure the need for and the degree of change? I have become increasingly convinced that what is sorely needed are socially accepted benchmarks for nuclear safety protection (that is, some form of safety goals) coupled with cost-benefit principles and a regulatory framework within which they can be prudently applied. I emphasize the word "prudent" since risk assessment methodology and cost-benefit judgments are as much an art as they are a science today; and even their strong proponents would

not argue that they should wholly supplant the current requirements approach to nuclear licensing. They do, however, need to play larger roles in nuclear policy and decisionmaking than is the case now. It is the latter considerations that lend particular importance to the NRC rulemaking proceedings which I mentioned earlier and to the broader policy initiative of the Reagan Administration on the role of regulation in American society and the concepts which should guide its application.

It is clear also that the proceduralization -- some would call it the "judicialization" -- of the U.S. regulatory program has reached such a stage as to threaten its ability to function effectively and to obscure, if not distort, the underlying processes of technical judgment. And it is the latter, after all, that form the bedrock of public protection and of nuclear regulation. Some of this is peculiar to the American regulatory system; however, I see counterparts emerging (if, indeed, not already in full bloom) within the framework of non-U.S. programs.

From the standpoint of this audience, and the matters we are discussing today, perhaps the most important collective lesson to be learned relates to the commonality of interests in nuclear regulation -- a commonality which transcends national borders. Modern communication and public attitudes in most of our countries assure that our problems and the regulatory response to them will soon impact on your own nuclear programs and vice-versa. TMI, and the regulatory reaction in the United States to that accident, brought this

point home with unmistakable clarity. Yet, the mechanisms which now exist for dealing with that reality are imperfect, to say the least. The recounting I earlier gave of U.S. NRC proposals for basic changes in siting policy -- and the surprised, if not dismayed, response from abroad -- carries its own message.

Governmental mechanisms for exchange of regulatory experience do exist, but I am not convinced that they are time effective -- and, certainly, they leave substantial gaps. I see as a hopeful sign, and an indicator of future collaborative action, the fact that utilities of five other nations have become sponsors of NSAC and, I understand, a number of others are considering such an affiliation. The efforts made by the IDCOR group in the United States to obtain the benefit of foreign views and experience in formulating the technical position of the American nuclear industry in the degraded core rulemaking proceeding moves international collaboration in regulatory matters one further practical step forward. I should think that a similar commonality of interest will emerge as the "safety goals" rulemaking of NRC -- with all its ramifications for non-U.S. programs -- proceeds to take shape.

As lawyers, we know that expression of foreign concerns in the domestic regulatory proceedings of another country can raise sensitive legal and procedural as well as political questions. Because of that, I believe that lawyers counseling their principals in these matters have a special responsibility for creative advice in structuring means so that communication of interests and viewpoints across our national borders can take place properly, effectively, and on a timely basis. In my judgment, this can be done.

Conclusion

What I have described is a post-TMI regulatory response yet to reach its climax but already producing a counter-reaction -- one that is providing the driving force for long overdue change in U.S. regulatory approaches and practices. While the basic direction of change has begun to emerge, it is too soon to predict the specifics of its outcome. What I can say with confidence, is that it is in our common interest to add the regulatory sphere to those trans-national nuclear areas where advance consultation and collaboration mark the sensible course for the future.

APPENDICES

POST-TMI DEVELOPMENTS IN U.S. NUCLEAR POWER

PLANT SITING AND LICENSING POLICIES

I. REGULATIONS

1. TITLE: Interim Statement of Policy and Procedure
[concerning the conduct of licensing
proceedings pending decisions on modification
of regulatory procedure]
STATUS: Statement of Policy
DATE: October 10, 1979
CITATION: 44 Federal Register (FR) 58559
SUMMARY: Provided that new limited work authorizations,
construction permits, and operating
licenses could be issued only after
action by the Commission

2. TITLE: Domestic Licensing Proceedings; Modified
Adjudicatory Procedures
STATUS: Final Rule
DATE: November 9, 1979
CITATION: 44 FR 65049
SUMMARY: Suspended the immediate effectiveness
rule

3. TITLE: Review of Uncontested Matters by Adjudicatory
Boards During Operating License Proceedings
STATUS: Final Rule
DATE: November 23, 1979
CITATION: 44 FR 67088
SUMMARY: Authorized licensing boards to examine
any serious matter not raised by parties
in an operating license proceeding

4. TITLE: Nuclear Power Plant Accident Considerations Under the National Environmental Policy Act of 1969
- STATUS: Statement of Interim Policy
- DATE: June 13, 1980
- CITATION: 45 FR 40101
- SUMMARY: Required consideration of Class 9 (so-called "catastrophic") accidents in National Environmental Policy Act (NEPA) reviews
5. TITLE: Further Commission Guidance for Power Reactor Operating Licenses
- STATUS: Statement of Policy
- DATE: June 20, 1980
- CITATION: 45 FR 41738
- SUMMARY: Provided that the "TMI-Related Requirements for New Operating Licenses" set forth in NUREG-0694 would be the principal basis for considering TMI-related issues in licensing proceedings. The requirements set forth in NUREG-0694 were derived from the "TMI Action Plan," NUREG-0660, and required license applicants to make certain improvements in reactor staffing, control room design, systems testing, accident monitoring, and emergency preparedness. The policy statement precluded litigation of the sufficiency - but not the necessity - of new TMI-related requirements that supplemented previous NRC regulations.
6. TITLE: Procedural Assistance in Adjudicatory Licensing Proceedings
- STATUS: Effective Rule
- DATE: July 25, 1980
- CITATION: 45 FR 49535
- SUMMARY: Established a one-year pilot program of procedural assistance in adjudicatory proceedings to parties other than the applicant

7. **TITLE:** Modification of the Policy and Regulatory Practice Governing the Siting of Nuclear Power Reactors
- STATUS:** Advance notice of rulemaking
- DATE:** July 29, 1980
- CITATION:** 45 FR 50350
- SUMMARY:** Invited public comment on recommendations made in NUREG-0625, Report of the Siting Policy Task Force. NUREG-0625 recommended revising the NRC's regulations pertaining to reactor siting: (1) to establish fixed minimum exclusion distances based on limiting individual risk from design basis accidents and a fixed minimum emergency planning distance of 10 miles; (2) to select only sites that do not require design features to compensate for site inadequancies and to establish exclusion distances and low population zones without reliance on engineered safety features; (3) to require consideration of potential hazards posed by, and establish minimum standoff distances for, certain man-made activities and natural site characteristics; and (4) to require consideration and monitoring of post-licensing changes in offsite activities.
8. **TITLE:** NRC Action Plan
- STATUS:** Request for Comments
- DATE:** July 30, 1980
- CITATION:** 45 FR 50613
- SUMMARY:** Requested public comment on the TMI Action Plan, NUREG-0660, which implements post-TMI recommendations by establishing a schedule of actions designed to improve safety

9. **TITLE:** Emergency Planning
- STATUS:** Final Rule
- DATE:** August 19, 1980
- CITATION:** 45 FR 55402
- SUMMARY:** Required applicants for operating licenses as well as current licensees to submit state and local government emergency response plans; and authorized the NRC to deny license applications and shut down operating plants if it finds that the applicable emergency response plan does not provide reasonable assurance that appropriate protective measures can and will be taken in the event of a radiological emergency
10. **TITLE:** Proposed Licensing Requirements for Pending Construction Permit and Manufacturing License Applications
- STATUS:** Proposed Rule
- DATE:** October 2, 1980
- CITATION:** 45 FR 65247
- SUMMARY:** Proposed rules applying TMI-related requirements, as derived from the TMI Action Plan, to the review of applications for construction permits (CP) and manufacturing licenses (ML). CP applicants were to compare their sites with the siting recommendations set forth in NUREG-0625, and to submit, prior to issuance of a CP, a preliminary emergency preparedness plan. CP and ML applicants were to describe the degree to which their designs conform to the proposed interim rule on degraded core, and to perform system reliability analyses for several systems, including various cooling systems. CP and ML applicants were also to identify and provide the bases for all deviations from the applicable Standard Review Plan (NUREG 75/087) acceptance criteria.

11. TITLE: Domestic Licensing of Production and Utilization Facilities; Interim Requirements Related to Hydrogen Control and Certain Degraded Core Considerations
- STATUS: Proposed Rule
- DATE: October 2, 1980
- CITATION: 45 FR 65466
- SUMMARY: Proposed changes to regulations to improve hydrogen management in light-water reactor facilities and to provide specific design and other requirements to mitigate the consequences of accidents resulting in a degraded core
12. TITLE: Domestic Licensing of Production and Utilization Facilities; Consideration of Degraded or Melted Cores in Safety Regulation
- STATUS: Proposed Rule
- DATE: October 2, 1980
- CITATION: 45 FR 65474
- SUMMARY: Invited public comment on a proposed rule that would require commercial nuclear power plants to be designed to cope with reactor accidents beyond those considered in the current "design basis accident" approach, including a fully melted core
13. TITLE: Plan to Require Licensees and Applicants to Document Deviations from the Standard Review Plan
- STATUS: Proposed Rule
- DATE: October 9, 1980
- CITATION: 45 FR 67099
- SUMMARY: Proposed a rule requiring all nuclear power plant licenses and all applicants for construction permits and manufacturing licenses to identify and justify deviations from the acceptance criteria of the applicable revision of the Standard Review Plan, NUREG-75/087

14. **TITLE:** Further Commission Guidance for Power Reactor Operating Licenses
- STATUS:** Statement of Policy
- DATE:** December 24, 1980
- CITATION:** 45 FR 85236
- SUMMARY:** Amended the NRC's June 20, 1980 Statement of Policy concerning TMI-related requirements for operating licenses to reflect NUREG-0737, Clarification of TMI Action Plan Requirements. NUREG-0737 essentially relaxed implementation schedules, added new requirements, and otherwise revised the TMI-related requirements of NUREG-0694. The new Statement of Policy, reversing the position of the June 20 statement, permitted litigation of the sufficiency - as well as the necessity - of TMI-related requirements that supplemented previous NRC regulations.
15. **TITLE:** Domestic Licensing Proceedings; Procedural Assistance Program
- STATUS:** Final Rule
- DATE:** February 24, 1981
- CITATION:** 46 FR 13681
- SUMMARY:** Suspended NRC regulations concerning procedural assistance to non-applicant parties in domestic licensing proceedings
16. **TITLE:** Conduct of Licensing Proceedings
- STATUS:** Statement of Policy
- DATE:** May 27, 1981
- CITATION:** 46 FR 28533
- SUMMARY:** Provided guidelines to licensing boards designed to expedite the hearing process

17. **TITLE:** Alternative Site Issues in Operating License Proceedings
- STATUS:** Final Rule
- DATE:** May 28, 1981
- CITATION:** 46 FR 28630
- SUMMARY:** Eliminated consideration of alternative sites in operating license reviews for NEPA purposes
18. **TITLE:** Commission Review Procedures for Power Reactor Operating Licenses; Immediate Effectiveness Rule
- STATUS:** Final Rule
- DATE:** May 28, 1981
- CITATION:** 46 FR 28627
- SUMMARY:** Amended review procedures for Licensing Board decisions granting operating licenses by requiring direct Commission review to determine whether the effectiveness of the decision should be delayed pending normal appellate review. Also eliminated the Appeal Board review of such Licensing Board decisions which had been directed by post-TMI review procedures.
19. **TITLE:** Rules of Practice for Domestic Licensing Proceedings; Modifications to the NRC Hearing Process
- STATUS:** Proposed Rule
- DATE:** June 8, 1981
- CITATION:** 46 FR 30349
- SUMMARY:** Proposed amending the Rules of Practice to facilitate expedited conduct of adjudicatory proceedings. These amendments would require a person seeking intervention in formal NRC hearings to set forth the facts on which the contentions are based and the sources used to establish the facts, limit to 50 the number of

interrogatories that a party may file, and permit the licensing boards to require oral answers to motions to compel and service of documents by express mail. An alternative amendment was also proposed that would require potential intervenors to demonstrate the existence of a genuine issue of material fact before being given a hearing.

20. TITLE: Rules of Practice for Domestic Licensing Proceedings; Expediting the NRC Hearing Process

STATUS: Final Rule

DATE: June 8, 1981

CITATION: 46 FR 30328

SUMMARY: Authorized the licensing boards to make oral rulings on written motions during the course of a prehearing conference or a hearing, precluded parties from filing responses to objections to a prehearing order unless directed by the licensing board; revised the schedule for filing proposed findings of fact and conclusions of law, and permitted summary disposition motions to be filed at any time during the course of the proceeding.

21. TITLE: Need for Power and Alternative Energy Issues in Operating License Proceedings

STATUS: Proposed Rule

DATE: August 3, 1981

CITATION: 46 FR 39440

SUMMARY: Proposed amending the NRC's regulations to provide that, for purposes of NEPA, need for power and alternative energy source issues will not be considered in operating license proceedings, and need not be addressed by operating license applicants in environmental reports submitted to the NRC at the operating license stage.

II. LEGISLATION

1. NRC FY 1980 Appropriation Authorization Act (Pub. L. No. 96-295, June 30, 1980)
 - (a) directed the NRC to promulgate siting regulations which:
 - (1) "shall specify demographic criteria for facility siting, including maximum population density and population distribution for zones surrounding the facility without regard to any design, engineering, or other difference among such facilities" (Sec. 108(c)); but
 - (2) shall not preempt state land use or siting regulation, providing that the state regulation is at least as stringent as the federal (Sec. 108(f));
 - (b) conditioned used of NRC funds with respect to issuance of a utilization facility operating license on the existence of a state or local emergency preparedness plan (Sec. 109);
 - (c) directed the NRC to develop and implement a comprehensive plan for the systematic safety evaluation of all currently operating licensed utilization facilities (Sec. 110, the so-called "Bingham Amendment").
2. Nuclear Safety Research, Development, and Demonstration Act of 1980 (Pub. L. No. 96-527, Dec. 22, 1980) directed

the Secretary of Energy:

- (a) to establish a research, development, and demonstration program for developing practical improvements in the generic safety of nuclear power plants during the next five years:
 - (1) to reduce the likelihood and severity of nuclear power plant accidents; and
 - (2) to reduce the likelihood of disrupting the population in the vicinity of nuclear power plants as a result of accidents;
- (b) to initiate a study of the need for and feasibility of a national reactor engineering simulator facility to foster research in generic design improvements;
- (c) to initiate a study on the sufficiency of efforts to provide specially trained professionals to operate nuclear power plants; and
- (d) to prepare a comprehensive management plan for the conduct of research, development, and demonstration activities under this Act.

3. S.1207 - Senate NRC FY 1982 and 1983 Appropriations Authorization Bill (introduced May 15, 1981)

- (a) would amend the Atomic Energy Act of 1954:
 - (1) to authorize the NRC to issue interim operating licenses prior to completion of operating license hearings;

(2) to authorize the NRC to issue license amendments without holding a hearing upon a determination by the Commission that the amendment involves no significant hazards consideration (effectively overruling the holding of a federal appeals court in Sholly v. NRC);

(b) would authorize the NRC to issue operating licenses even though an emergency preparedness plan has not been approved by the Federal Emergency Management Agency (FEMA), with respect to the facility, providing that an emergency preparedness plan exists which provides reasonable assurance that the public health and safety is not endangered by the operation of the facility; and

(c) would authorize the NRC to establish an independent Temporary Advisory Panel to evaluate the licensing process.

4. H.R. 4255 - House NRC FY 1982 and 1983 Appropriations Authorization Bill (introduced July 23, 1981)

(a) contains provisions similar to S.1207 which would authorize the NRC:

(1) to issue interim operating licenses prior to completion of operating license hearings;

(2) to issue license amendments without holding a hearing upon a determination that the amendment involves no significant hazards consideration;

(3) to issue operating license even though an emergency preparedness plan has not been approved by FEMA; and

(4) to establish a Temporary Advisory Panel to evaluate the licensing process;

(b) calls upon the NRC to expedite development of a safety goal for nuclear reactor regulation so as to allow for the establishment of a safety goal no later than December 31, 1981.

5. H.R. 4144 - House FY 1982 Energy and Water Development Appropriations Bill (passed by the House on July 24, 1981) provides that no part of the funds appropriated to the NRC thereunder may be used to implement section 110 of Pub. L. No. 96-295, the "Bingham Amendment", which directed the NRC to develop and implement a comprehensive plan for the systematic safety evaluation of all currently operating licensed utilization facilities.

