UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

Revision of Emergency Planning Requirements for Fuel Loading and Low Power Testing 10 C.F.R. Part 50	Notice of Proposed Rulemaking, 53 Fed. Reg. 16435 (May 9, 1984)

UNION OF CONCERNED SCIENTISTS AND
NEW ENGLAND COALITION ON NUCLEAR POLLUTION'S
COMMENTS ON PROPOSED RULE CHANGE ON
PUBLIC NOTIFICATION AND LOW POWER TESTING

I. Introduction

These comments are submitted by the Union of Concerned Scientists ("UCS") and New England Coalition on Nuclear Pollution ("NECNP") in response to the Nuclear Regulatory Commission's request for public comment on the proposed change to the Commission's rules governing emergency planning and preparedness requirements for nuclear power plant fuel loading and initial low power operations, 10 C.F.R. § 50.47(d).

UCS and NECNP oppose the proposed rule change. The proposed rule violates the rights of citizen intervenors under § 189(a) of the Atomic Energy Act, which entitles the public to a hearing on all issues relevant to full power operation prior to the issuance of a license to operate at any level of power. Furthermore, the Commission has failed to present any new evidence, or articulate any principled rationale, justifying the repudiation of its earlier findings that public notification is needed to provide adequate protection to the public when the plant is operating at low

power levels. Finally, this action constitutes an improper attempt to adopt a generic rule for the purpose of affecting a single licensing proceeding, namely, Seabrook, an action that abridges the statutory hearing rights of citizen interveners who are parties to this ongoing licensing proceeding.

II. Background.

A utility's demonstrated ability to provide prompt and adequate notification and instructions to persons living within the ten-mile zone surrounding a nuclear reactor in the event of an accident is a mandatory offsite emergency planning requirement, which must be met in order for the Commission to make the safety finding necessary to full power licensure. 10 C.F.R. § 50.47(b)(5). This requirement was formulated in 1980, as part of the Commission's recognition that offsite emergency planning and preparedness for an accident was necessary in order to prevent a recurrence of the chaotic and unplanned emergency evacuation of local population that followed the accident at the Three Mile Island nuclear plant

In 1982, the Commission revised its emergency planning regulations to permit fuel loading and low power testing prior to hearings and findings on the adequacy of most elements of offsite emergency planning and preparedness. Satisfaction of these requirements was not deemed necessary to providing assurance that adequate protection measures can and will be taken if any accident should occur during low power operation due to the lesser degree of risk of an accident with offsite consequences arising

from low power operation, and the increased amount of time available at low power levels to take precautionary action to protect the surrounding public.[1] However, the 1982 rule change expressly stated that certain minimal offsite elements -- one of which was prompt public notification -- must still be met as a precondition to low power operation. These requirements were retained, in recognition of the fact that, should an accident nonetheless occur, some protective action was necessary to provide instruction and warning to the public to mitigate the harm that could result from a spontaneous, unplanned public evacuation.

III. There is No Adequate Justification for the Rule Change in the Record .

The Commission has failed to present any new evidence, or articulate any principled rationale, justifying the repudiation of its earlier finding that public notification is needed to provide adequate protection to the public when a plant is operating at power. The NRC attempts to justify the proposed rule by reference to the relatively low risks associated with low power operation,[2] and by suggesting that prompt notification was "far in excess of what would reasonably be needed."[3] There is insufficient evidence in the record to support either of these rationales.

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1 47 Fed. Reg. 30233.

2 53 Fed. Reg. at 16436 col. 1; SECY 88-109, at 3-4.

3 53 Fed. Reg. at 16437 col. 1; SECY 88-109, at 5.

The suggestion that prompt, early warning is not necessary due to the low risks associated with low power operation, must be rejected at the outset. The Commission has provided no evidence that an accident is not possible while operating at low power levels, or indeed, that an accident is less likely than it was thought in 1982, when emergency notification was determined to be minimally necessary to operate a low power. In fact, there are a number of risks associated with low power operations. Present NRC regulations do not restrict the length of time a licensee may conduct low power operation. At 5% power, substantial inventories of biologically significant fission products will be developed in from eight to forty days. For example, the short-lived isotopes of iodine and tellurium, which are significant contributors to prompt public health consequences, approach 95% of their equilibrium condition (5% of their full power value in eight to forty days. Thus, while the inventory of all radionuclides developed during low power operation is reduced compared to full power operation, the inventory of radionuclides with public health significance still poses a substantial prompt public health hazard.

Moreover, the notion that the risks associated with low power are low is not a new one. Rather, this assessment of the risk of low power operation was the basis for the 1982 rule change, which dispensed with many of the offsite emergency planning requirements as a precondition to low power authorization, but which expressly retained the requirement. The proposed rule

fails to explain in any adequate fashion how the same assessment of the risks associated with low power operation support two, polar opposite rules, one requiring prompt emergency notification to protect the public during low power operation, and one dispensing with this requirement altogether.

In any case, while the relative risk posed by low power operation may be the consideration underlying the promulgation of § 50.47(d) as a whole, this was clearly not the primary safety basis for requiring the retention of certain minimal offsite requirements, including the regulatory requirement that the Commission seeks now to eliminate, that of early warning capability. Rather, it is apparent from the regulatory history of 10 C.F.R. § 50.47(d) that the safety basis for requiring early warning capability even during low power operation was to minimize chaos that would result from a spontaneous, unplanned evacuation of the surrounding population in the event of an accident at low power.

As initially proposed, § 50.47(d) would have permitted low power authorization prior to any hearings or findings on the state or adequacy of offsite emergency planning or preparedness, including emergency notification and various other offsite elements related to the state of onsite emergency planning.[4] However, numerous commenters on the rule raised the concern that the public's knowledge that no assurances of offsite protection exist "could cause chaos in the event of an incident during fuel load-

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4 46 Fed. Reg. 61132 (December 15, 1981).

ing or low power testing."[5] In response to these concerns, the Commission stated in the final regulations that, prior to issuing an operating license authorizing low power testing and fuel loading, the NRC will review certain offsite elements of the applicant's emergency plan, and specifically named as one such requirement, emergency notification and early warning.[6]

However, the proposed rule in no way addressed this safety basis, nor has it presented any evidence that there will not be a mass panic when word of an accident gets out. The Commission's articulated justifications, because they do not address the actual safety bases for the rule, are not sufficient.

Moreover, the proposed rule fails to explain adequately how the rule change can be reconciled with statements in the regulatory history of § 50.47(d), purportedly justifying the original rule's retention of offsite emergency preparedness requirement for small research reactors, but not large commercial reactors. The final rule justified the distinction on the ground that "research reactors are often located in high population density areas. It is therefore prudent to have an offsite emergency plan for these reactors."[7] This contradicts the Commission's current posture that the relatively lower risks of low power operation justify elimination of even the most minimal

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5 47 Fed. Reg. 30232 (July 1, 1982).

6 Id.

7 46 Fed. Reg. 61132 (December 15, 1981).

offsite safety measures, since it concedes that there is an accident risk at low power serious enough that a research reactor (much smaller than a power reactor) needs a full emergency plan.

Furthermore, it is somewhat anomalous that the notice of proposed rulemaking expressly referenced the current issues involving offsite emergency planning for the Seabrook reactor as motivating the proposed rule change, since the Seabrook reactor is located in a high population density area. Thus, if anything, the experience of emergency planning for the Seabrook reactor would dictate a rule change that would increase and enhance the elements of offsite emergency planning and preparedness required for low power operation, rather than paring them down even further.[8]

In fact, prompt early warning capability is clearly still necessary to protect the public adequately in the event of an accident at low power, regardless of the severity or safety consequences of an accident relative to the risks posed by full power operation. Emergency notification remains necessary to control and prevent a panicked and chaotic evacuation by providing necessary instructions and information to the public. Early warning capability is particularly critical in light of the fact that, at low power levels, there is no assurance that adequate protective action can be taken in the event of an accident, or

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8 See discussion below regarding the inappropriateness of promulgating categorical exemptions to deal with site-specific licensing issues.

trained personnel and resources exist for directing the unplanned, spontaneous evacuation that will result.

Moreover, even the Commission's postulated minimum response time of ten hours for an accident which could result in the release of fission products, would be insufficient to notify the public as to what action should be taken and to effect the necessary protective action at the Seabrook plant, which is located in a high population density area. For example, the utility's estimate of the time to evacuate to the EPZ boundary of the Seabrook reactor during the summer time, as postulated by PSNH, is nine and three quarters hours.[9] One could only expect that evacuation time to increase during an accident at low power, without any plan for directing the spontaneous evacuation. Even assuming that PSNH's evacuation time estimate is correct, this leaves a full quarter of an hour to provide notification and instructions to the public.[10] Based on these estimates, without assurances of prompt, early notification, by the time the public has been notified, there will be no time left to evacuate the

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9 New Hampshire Radiological Emergency Reponse Plan, Appendix E, 10-9. We note that the parties are currently litigating the accuracy of this estimate, since several intervenors contend that this estimate is too conservative, and that an actual evacuation during the summer, given the large beach poulation, many of whom are non-English speaking, would be mucn longer.

10 Indeed, one must assume that the evacuation time estimates for carrying out an evacuation under an untested plan, where no exercises have been conducted, are far greater.

population, provide medical services, or carry out other important dose reduction measures.

Accordingly, because the Commission has failed to provide any adequate justification for a change in the emergency planning rules that would diminish the level of safety to the population at risk in the event an accident during low power operation, the rule change is arbitrary and capricious.

IV. The Proposed Rule Improperly Attempts to Adopt a Categorical Exemption to Deal with a Site-specific Situation.

The notice of proposed rulemaking candidly acknowledges that this proposed rule change was motivated by recent events at the Seabrook nuclear power plant. Local governments throughout the Massachusetts portion of the offsite emergency planning zone who have refused to participate in emergency planning have dismantled sirens or refused to allow Public Service Company of New Hampshire, the lead Applicant in the Seabrook licensing proceeding, to install them on public property. As a result of this action, PSNH has difficulty meeting NRC early warning regulations.

Thus, the utility's current failure to provide a reliable means of prompt notification is a contention in litigation in the ongoing Seabrook licensing proceeding. The Commission has literally plucked the issue out of the adjudication by issuing an order deferring further litigation and stated its intention to resolve the matter "generically". This is a sham; the issue is not generic, it is clearly specific and unique to one ongoing case. Moreover, the question of whether eliminating this requirement would pose undue risk to public safety is an issue

that requires consideration of facts specific to the Seabrook case. Seabrook is sited in a location that poses unique demographic and geographic problems for any evacuation -- tens of thousands of transients without access to adequate shelter on a barrier beach with an extremely limited road network, within 2-3 miles of the plant. Even a planned evacuation with 15 minute notification is conceded by the utility to take as long as nine and three quarters hours.

Moreover, the sirens required for prompt notification must also be capable of issuing voice instructions because most of the population closest to the plant during the summer are transients on the beach away from their homes and cars. There can be no question that deleting the prompt notification requirement will make the situation much worse. Yet, where conceding that the rule applies only to Seabrook, the Commission has literally failed to present or rationalize any of the facts specific to Seabrook which bear directly on the safety consequences of removing the prompt notification requirement.

The law is clear that an issue can not be treated generically if its solution requires consideration of the facts specific to individual cases. "Categorical exemptions from the clear commands of a regulatory statute, though sometimes permitted, are not favored." Alabama Power v. Costle, 636 F.2d 323, 358 (D.C. Cir. 1979).

The Commission's attempt to manipulate its rules to remove this issue from the Seabrook adjudication runs flatly afoul of

this principle. As noted above, the proposed rule runs directly counter to the dictates of the Atomic Energy Act, which guarantees a prior hearing to the public on all issues material to a licensing proceeding, without regard to the level of power for which authorization is sought. There is no compelling administrative necessity suggesting that proceeding on a case-by-case basis would disable the Commission from carrying out its mandate. Rather, this is precisely the type of site-specific issue where the case-by-case exemption process afforded by NRC regulations to parties in ongoing litigation is most appropriate.

PSNH has two choices: it can meet the rule by some means other than sirens (which, it should be noted, the company claims it can) or it can seek an exemption through the mechanism afforded by 10 C.F.R. § 2.758(b). However, by changing the rules to deal with a site specific problem, the Commission has violated the spirit, if not the letter, of 10 C.F.R. § 2.758(a), which prohibits parties to an adjudicatory proceeding involving an initial licensing from challenging NRC rules or regulations, except through the case-by-case exemption process Applicants carry the burden of proving that they satisfy all Commission regulations before they can receive a license for the operation of the Seabrook nuclear power plant, or else satisfy the formidable burden placed on one seeking a regulatory waiver.[11] By attempting

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11 10 C.F.R. §§ 50.57(a), 2.732; see North States Power Co. (Monticello Nuclear Generating Plant, Unit 1), CLI-72-81, 5 AEC 25, 26 (1972).

to deal with this situation by changing the rules, rather than through the exemption process, the proposed rule change unlawfully shifts the burden of proof away from the party seeking a waiver of a regulatory requirement, and denies the parties to the Seabrook proceeding their statutory hearing rights.

V. The Atomic Energy Act Prohibits Authorization of Low Power Operation Prior to Completion of Public Hearings on All Issues Material to Full Power Licensing.

There is no suggestion in the proposed rule that prompt public notification is no longer needed to protect the public in the event of a radiological emergency during full power operation, or that such a finding need not made prior to issuance of a full power operating license. Rather, the Commission appears to assume that it possesses the authority to dispense with this mandatory licensing requirement solely for purposes of fuel loading and low power testing, and in effect, create an intermediate licensing stage with diminished hearing rights. This cannot be reconciled with the Atomic Energy Act's guarantee of a prior hearing on all issues material to an operating license, which contains no provision authorizing reduced hearing rights for different operational phases.

The Commission has no authority under the Atomic Energy Act to carve up the licensing process, permitting litigation of only those issues that are deemed "relevant" to a particular level of power being authorized.[12] Otherwise, the Commission could

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12 To the extent that 10 C.F.R. § 50.47(d) already permits low power operation prior to hearing and satisfactorily resolving other contested emergency planning issues, it violates § 189(a) of the Atomic Energy Act in the same respect.

license a nuclear power plant bit by bit, postponing citizen litigation of safety issues until the plant was operating at virtually full power. Clearly, this was not the result intended by Congress. On the two prior occasions when Congress perceived a need to permit low power operation before licensing hearings were complete, it did so by express statutory language, and gave the Commission only temporary authority to do so.[13] Absent specific legislative authorization, no level of power may be authorized before there is a finding that all safety requirements have been met[14] and, in the case of contested safety issues, until after intervenors have had a hearing on these issues.

It is by now generally recognized that the issuance of a license authorizing low power operation would have the irreversible effect of causing the contamination of the Seabrook plant, and posing some risk to the public health and safety. Long Island Lighting Co. (Shoreham Nuclear Power Station), CLI-85-12, 21 NRC 1587 (1985). For this reason, the Commission has no authority to

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13 the legislative history of the expired Temporary Operating Licensing Authorization, 42 U.S.C. § 2242, which expired December 31, 1983, and the "Sholly Amendment," 42 U.S.C. § 2239(a), Pub. L. 97-415 § 12(a), 96 Stat. 2073 (January 4, 1983).

14 10 C.F.R. § § 50.57(c) relieves the Licensing Board of the obligation to make positive findings on uncontested issues prior to low power operation, by delegating this function to the Director of Nuclear Reactor Regulation (NRR). However, nothing in the regulation vitiates the Licensing Board's obligation to make findings on all operating license issues "as to which there is a controversy" prior to issuance of a low power license.

permit the initial operation of a nuclear power plant at any power level, with its accompanying irreversible changes and raised risk to the public health and safety, until the NRC completes hearings on all issues that are material to the full power licensing of the plant.

VI. Conclusion

For the foregoing reasons, we believe that the proposed rule change should be rejected.

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