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(55FR 41095)

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NORTHEAST UTILITIES



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December 21, 1990

Docket Nos. 50-213

50-245

50-336

50-423

R13695

Re: 55FR 41095

ERDS

Mr. Samuel J. Chilk, Secretary
Docketing and Service Branch
U.S. Nuclear Regulatory Commission
Mail Stop 16 G15
Washington, DC 20555

Dear Mr. Chilk:

Haddam Neck Plant
Millstone Nuclear Power Station, Unit Nos. 1, 2 and 3
Emergency Response Data System (ERDS)
Comments on Proposed Rule

Connecticut Yankee Atomic Power Company (CYAPCO) and Northeast Nuclear Energy Company (NNECO) hereby submit the following comments in response to the request of the NRC for comments on the proposed rule relative to nuclear power plant implementation of the Emergency Response Data System (ERDS) (55 FR 41095). Additionally, these comments are applicable to the principle supporting document, NUREG-1394, "Emergency Response Data System (ERDS) Implementation," dated April 1990.

In addition to the comments provided in this letter, CYAPCO and NNECO wish to endorse those comments provided to the NRC by the Nuclear Management and Resources Council (NUMARC) and the Nuclear Utility Backfitting and Reform Group (NUBARG) on this issue.

By letter dated August 14, 1990,⁽¹⁾ CYAPCO and NNECO notified the NRC of their voluntary participation in the ERDS project for all four of our nuclear units. CYAPCO and NNECO are working closely with the NRC contractor to implement the ERDS. For this reason, we strongly prefer that a rule governing ERDS implementation not be promulgated. Further, we maintain

(1) E. J. Mroczka letter to the U.S. Nuclear Regulatory Commission, dated August 14, 1990, "Haddam Neck Plant and Millstone Nuclear Power Station, Unit Nos. 1, 2, and 3 Emergency Response Data System."

that the Staff has not provided adequate justification for the rule pursuant to the requirements of 10CFR50.109. Nevertheless, if the rulemaking process continues, then the following statements express CYAPCO's and NNECO's concerns with the NRC's proposed rule and NUREG-1394.

Federal Register Notice Comments

1. 55 FR 41096: In the "Discussion" section under "Supplementary information" in the FR notice, paragraph three discusses having the ERDS "operational during (1) emergencies at the licensee's facilities and (2) emergency training exercises if the licensee's computer system has the capability to transmit the exercise data."

The proposed rule does not address operating the ERDS during emergency exercises. For consistency between the "Discussion" section and the proposed rule, a statement about use during emergency training exercises should be made in 10CFR50.72(a)(4) of the proposed rule. We prefer that the following statement be added as sentence number two under 10CFR50.72(a)(4): "The ERDS may also be activated by the licensee during emergency drills or exercises if the licensee's computer system has the capability to transmit the data."

2. 10CFR50.72(a)(4), (55 FR 41099): The proposed rule should allow the licensee the flexibility of activating the ERDS by computer operations personnel, or by a software switch instead of a plant operator. If the rule is to be interpreted that a licensed operator must perform this function, it distracts him from his accident mitigation function at a time when he can least afford it.
3. Appendix E, Section VI, first sentence, (55 FR 41099): The proposed rule is too prescriptive in that it requires the data link to originate from the licensee's onsite computer system (i.e. Plant Process Computer). In our case, this limitation will introduce the following problems:
 - a. The Haddam Neck Plant and Millstone Unit No. 2 and 3 process computers, which were upgraded recently, are nearing the 100% utilization factor in a post-trip/post-incident environment. CYAPCO and NNECO presently have no plans to replace these computers. Adding ERDS to the Haddam Neck Plant and Millstone Unit No. 2 and 3 process computers may introduce a safety concern by causing incremental degradation of the process computer reliability in a post-trip/post-incident environment.
 - b. The plant computers at the Haddam Neck Plant and Millstone Unit Nos. 1, 2 and 3, which were upgraded recently, do not have the capability to store and forward emergency drills or exercise data.

- c. The four plant process computers are dissimilar and will require different software routines to be written. This will add substantially to our implementation costs. This point is particularly noteworthy since our decision to volunteer to implement ERDS was based upon our understanding of Generic Letter 89-15, which was not prescriptive regarding the origin of the data link.

The rule should explicitly allow each licensee the flexibility to devise the best suited arrangement for meeting the intent of the rule. If we could use our central corporate computer system (i.e. Offsite Facilities Information System (OFIS) which is already receiving the parameters from the process computer at each unit as well as from each of the plant-specific simulators) to provide the ERDS data, it would afford us and the NRC the following benefits:

- a. The cost of designing, implementing, and surveilling an ERDS program will be reduced because it will be part of the existing OFIS program utilized by the licensee emergency response organizations.
- b. The reliability of the ERDS system will be higher because of the computer support resources available to the corporate computer and devoted to OFIS.
- c. Data for emergency drills or exercises could be made available to the NRC.
- d. No further burden and resulting negative safety impact will be added to plant process computers. OFIS is part of the constant base load on the plant computers.
- e. The data would be transmitted from a location with a 24 hour a day computer control center. The plants' computer rooms are not manned 24 hours a day. Response time for on-call personnel would be a factor in correcting transmission problems.

To allow flexibility, delete the word "onsite" from the first sentence in Appendix E, Section VI.1 (55 FR 41099) and all subsequent locations.

4. Appendix E, Section VI.1, first paragraph, (55 FR 41099): The word "real time" should be changed to "near real-time". This comment is based on the statements made in item number 10.
5. Appendix E, Section VI.1, second sentence, 55 FR 41099)/NUREG-1394, Appendix J, Questions & Answers, #10: Because the majority of the data required by the NRC will be transmitted via the ERDS, the need for a full-time person manning the Emergency Notification System (ENS) during an emergency should be relaxed.

6. Appendix E, Section VI.2, first sentence, (55 FR 41099): ". . . onsite hardware and software shall be provided at each unit by the licensee to interface with the NRC receiving system."

This statement should be clarified to indicate that the licensee will only provide an output port, for each unit, on the appropriate data system and the necessary software to assemble the data to be transmitted.

This would maintain consistency between GL 89-15, NUREG 1394, and the proposed rule.

7. Appendix E, Section VI.2.a(i),(ii), (55 FR 41099): Delete sentences three and four because they are irrelevant to interface with the NRC. Isolation requirements should be those already existing for the affected safety systems. This rule should impose no new requirements in this regard.
8. Appendix E, Section VI.2.a(i), (ii), (55 FR 41099) We strongly oppose identifying specific parameters in the rule. That should be left up to an NRC guidance document such as a NUREG or Regulatory Guide.
9. Appendix E, Section VI.2.a(i)[5], (55 FR 41099): At the Haddam Neck Plant, almost no radiation monitoring system instrumentation is input to the process computer. While the proposed rule already states that no backfit modifications will be required, it also indicates that radiation monitoring system parameters are key inputs. It is important that the rule be promulgated and interpreted to preclude this from becoming an issue for the Haddam Neck Plant. The rule, in short, should not specify new parameters to be input to the process computer.
10. Appendix E, Section VI.2.b, (55 FR 41099): This is too prescriptive and eliminates use of existing licensee computer data systems already servicing the licensee's Technical Support Center (TSC)/Emergency Operating Facility (EOF), etc. The rate at which data are transmitted to the ERDS should be commensurate with the rate at which data are transmitted to the TSC/EOF as long as the data resolution is between 15 and 60 seconds and transmitted through a buffer system relatively frequently. It should be acceptable to transmit to the ERDS, 10 blocks of data collected at 30 second intervals, every 5 minutes if data are being transmitted every 5 minutes to the TSC/EOF and this adequately meets emergency response needs. Our view is that the need for "real-time" data for ERDS should be no greater than that for facilities integral to our emergency response organization. The data would still carry time stamps that are "real-time."
11. Appendix E, Section VI.2.c, (55 FR 41099): Why, if after implementation of the ERDS the NRC changes its format, are we required to change our transmission of data automatically? Because such changes could

involve significant licensee expenditures, and could, in some cases, be considered a new backfit, the proposed rule should only require an initial format. Subsequent NRC format changes should either be an issue of compromise between the NRC and the licensee or be considered a new backfit.

12. General Comment: Backfit Analysis Section, Item 9 (55 FR 41098) states ". . . will require that all licensees develop and submit an ERDS implementation plan to the NRC within 60 days of the publication of the final rule in the Federal Register." Appendix E, Section VI.4.a (55 FR 41099, 10/9/90) states "Each licensee shall develop and submit an ERDS implementation program plan to the NRC by [insert a date 75 days after publication of the final rule]." To alleviate this inconsistency, the Backfit Analysis Section should be consistent with the 75-day schedule in the proposed rule.

NUREG 1394

1. Appendix B, Section II.A: Faster, more "state-of-the art" communications hardware may be appropriate and should be an option.
2. Appendix B, Section II.B.d: The ERDS data transmission rate is specified here as every 15 seconds. This is inconsistent with the proposed rule which states ". . . not less than 15 seconds or more than 60 seconds" (55 FR 41099). This is too prescriptive and eliminates use of existing licensee computer data systems already servicing the licensee's TSC/EOF, etc. The rate at which data are transmitted to the ERDS should be commensurate with the rate at which data are transmitted to the TSC/EOF as long as the data resolution is between 15 and 60 seconds and transmitted through a buffer system relatively frequently. It should be acceptable to transmit to the ERDS, 10 blocks of data collected at 30 second intervals, every 5 minutes if data is being transmitted every 5 minutes to the TSC/EOF and adequately meets emergency response needs. (Reference comment #10 under the Federal Register section).
3. Appendix B, Section II.B.2.g: More flexibility in acceptable quality tags should be provided to allow existing plant methodologies to be used. Different quality tag information is shipped for each process computer. For instance, Millstone Unit No. 3 ships only 4 of the 8 tagging categories identified by the NRC. The Haddam Neck Plant uses letters as quality tags vice numbers. A major software change would be required to implement the quality tag system proposed in the NUREG. This would create another added cost for the licensee. We do not believe that these costs are technically justified, and note again that this provision differs from our understanding at the time we volunteered to implement ERDS.

CYAPCO and NNECO have also reviewed the Staff's backfit analysis published with the proposed rule and, in summary, conclude that the analysis is legally insufficient in that, among other things, it fails to demonstrate that a substantial increase in the overall protection of the public health and safety will result. Moreover, the NRC's backfitting analysis does not appear to consider the potential negative impact on licensees' accident management by increasing the likelihood of unnecessary NRC intervention, a point made by the Advisory Committee on Reactor Safeguards (ACRS).⁽²⁾ To illustrate this point, the NRC already appears to be predisposed to the concept of intervening as evidenced by the statement made in Section I--Concept of Operations, of the U.S. NRC, Region I, Incident Response Supplement. As stated in E.2 of Section I, one of the NRC's major responsibilities is "Issuance of formal orders to the licensee, and if necessary, assumption of management control if the licensee fails to take actions critical to protect the public health and safety." The applicable portion of Section I is provided in Attachment No. 1. NRC publications such as this one, increase our skepticism of verbal NRC assurances that ERDS will not increase the likelihood of NRC intervention during accident conditions. The NRC's 50.109 analysis also fails to address the potential for other adverse safety impacts to result from ERDS implementation, such as the one discussed on page 2 of this letter.

A meeting to discuss the implementation of the Emergency Response Data System for the Haddam Neck Plant and Millstone Unit Nos. 1, 2 and 3 was held on December 6, 1990, at Northeast Utilities. Mr. John Jolicoeur (NRC ERDS Project Manager) and Mr. Tony LaRosa (NUS Corporation ERDS Project Manager) made a presentation to Northeast Utilities personnel. The main focus of concern was how the Haddam Neck Plant and Millstone Unit Nos. 1, 2 and 3 will transmit their data to the NRC Operations Center in Bethesda, Maryland. A representative from NU provided a brief presentation of our Offsite Facilities Information System, which extracts its data from the plant process computer. We intend to use OFIS as the source of the data link to the NRC, originating in Wethersfield, Connecticut, where the IBM mainframe is located. NU recognizes that this is not consistent with the specific language in the proposed rule. Also, Mr. John Jolicoeur stated that the NRC is planning to change the means of transmission, for the Emergency Notification System and other NRC phones, to satellite. The NRC would install a satellite dish at each nuclear site. This would be incompatible with our plans as we prefer to send ERDS data from one central location. We proposed installing ENS communication equipment in Wethersfield, Connecticut for transmission of ERDS information. We were advised that the NRC would evaluate this proposal. Since the meeting, NU personnel discussed the NRC's concept of voice transmission via satellite

(2) C. J. Wylie, Acting Chairman, ACRS, letter to K. M. Carr, Chairman, USNRC, "Proposed Rule to Implement An Emergency Response Data System," dated June 12, 1990.

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and would like to point out to the Staff that this could be a problem due to voice delay time and break up of communications. Other items of concern raised at the meeting by Northeast Utilities, NUS, and the NRC were adequately addressed. This meeting was very fruitful and appeared to indicate, based on the discussions that occurred, that the potential for flexibility in implementing the ERDS does exist.

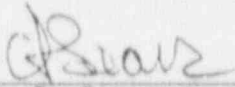
We appreciate the opportunity to comment on this proposed rule and supporting documents and we trust you will find these comments valuable in establishing a final regulation, should you elect to go forward. However, we maintain that new regulations should not be promulgated unless the thresholds established by 10CFR50.109 are met. In this case, we believe they are not. Ironically, if the regulation is promulgated as proposed, we may be forced to seek certain technical exemptions in order to implement a superior system at reduced cost. A far more preferable approach is to continue ERDS implementation on a voluntary basis. We believe this rule-making represents an opportunity for the NRC to respond in the spirit articulated in regulatory publications associated with the Regulatory Impact Survey, e.g. SECY-90-347.

As always, we remain available to discuss this matter with you at your convenience.

Very truly yours,

CONNECTICUT YANKEE ATOMIC POWER COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

FOR: E. J. Mroczka
Senior Vice President

BY: 
C. F. Sears
Vice President

cc: T. T. Martin, Region I Administrator
A. B. Wang, NRC Project Manager, Haddam Neck Plant
J. T. Shedlosky, Senior Resident Inspector, Haddam Neck Plant
M. L. Boyle, NRC Project Manager, Millstone Unit No. 1
G. S. Vissing, NRC Project Manager, Millstone Unit No. 2
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and 3

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Attachment No. 1

Haddam Neck Plant
Millstone Nuclear Power Station, Unit Nos. 1, 2, and 3

U.S. Nuclear Regulatory Commission
Region I, Incident Response Supplement
Applicable Portions of Section I

December 1990

Copy No. 92



**United States
Nuclear
Regulatory Commission**

**REGION I
INCIDENT RESPONSE SUPPLEMENT**

REGION I

INCIDENT RESPONSE SUPPLEMENT

Section I - Concept of Operations

A. Introduction

In keeping with its statutory responsibility to regulate nuclear activities in order to protect the public health and safety and to preserve environmental quality, the NRC must be prepared to respond quickly to any incident involving NRC licensed activities that pose a potential threat to the public or the environment. This Incident Response Supplement sets forth the regional activities which will be undertaken to ensure that NRC statutory responsibilities are fulfilled.

This Supplement describes NRC Region I response to incidents involving licensed power plants, materials facilities and transportation accidents and assigns responsibilities for emergency planning and response. The Supplement also discusses the degree of cooperation and interaction with local, state, and other federal organizations needed to help in meeting NRC statutory responsibilities. The Supplement contains separate implementing procedures which delineate the manner in which each function is to be performed, the criteria to be used in decision making, and how the responsibilities assigned are to be exercised. The overall NRC incident response organization consists of an Executive Team (ET), NRC Operations Center (NRCOC), Analysis Teams, and Liaison Teams, Regional Incident Response Center (IRC), a Base Team and a Site Team.

The NRC responds to all significant incidents involving licensed facilities or materials, including radionuclides in transit. The NRC acts as the lead federal agency with regard to technical matters during incidents, is prepared to recommend appropriate protective actions for the public and technical actions for the licensee to mitigate the consequences of the event. FEMA will act as the lead offsite federal agency for non-technical concerns. Agency procedures for the NRC Agency-wide Incident Response Plan are contained in NUREG-0845.

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[1

During an incident, the Chairman of the Commission or his designee is the senior NRC authority for all aspects of NRC response. The Chairman may transfer control of emergency response activities to an NRC representative at the site when the onsite NRC representative has been briefed and is prepared to receive the authority.

Licensees which do not have these dedicated emergency phone networks report via the NRC regional commercial telephone number. During non-duty hours, callers to the Regional Office are directed via telephone answering machines to contact the NRC Operations Center by a means of a toll free number. The HQ Duty Officer then contacts the assigned Regional Duty Officer (RDO).

E.2 NRC

Upon notification of an incident, the NRC will determine the nature and significance of the event, and in the case of reactors and fuel facilities, will ascertain the status of the plant and monitor licensee activities. The monitoring role is provided in order to ensure that the licensee is taking adequate steps to protect the health and safety of the public as well as the environment.

Major responsibilities of the agency include the following.

- . Assessment the nature and extent of both the operational and the radiological consequences of the accident and its potential for offsite impact on the health and safety of the public.
- . Monitoring of licensee activities.
- . Coordination of the technical activities of the federal response.
- . Providing of technical advice to the licensee, federal, state and local agencies.
- . Development and presentation to the appropriate state agency technical recommendations concerning protective measures to be taken to protect public health and safety. These recommendations will be made after giving appropriate consideration to the dissenting view points of other federal agencies and the licensee.
- . Issuance of formal orders to the licensee, and if necessary, assumption of management control if the licensee fails to take actions critical to protect the public health and safety.
- . Coordination of the NRC's radiological monitoring activities with those of other federal agencies, the state and the licensee.
- . Coordinate with all agencies, including the state and licensee, the release of public information concerning the federal technical response, including the status of the reactor, radiological monitoring activities, and other federal technical support being provided.
- . Maintenance of an effective response and mobilization capability by NRC:HQ and the regions in order to fulfill the responsibilities described above.

E.3 Federal Emergency Management Agency (FEMA)

FEMA has the responsibility for all offsite nuclear emergency planning and assigns federal agency responsibilities for assisting state and local governments in their emergency planning and response.

Executive Order 12241 delegated to FEMA the responsibility to prepare a plan for federal response to accidents at commercial nuclear power plants. Under this plan, federal technical coordination and onsite response is the responsibility of the NRC (except that onsite activities must be coordinated with offsite response) and FEMA is responsible for non-technical coordination of offsite preparedness and response.

E.4 Other Federal Agencies

FEMA, in 44 CFR 351, "Radiological Emergency Response Planning and Preparedness", assigns responsibilities to the federal agencies involved in radiological emergency planning and response. Principal agencies involved in response activities are discussed below.

E.4.1 Department of Energy (DOE)

The NRC, in its role of coordinating technical aspects of the federal response to accidents, will rely on DOE to coordinate all offsite radiological monitoring, evaluation, assessment, and reporting activities of the participating federal agencies during the initial phases (short-term) of an incident. DOE will supply this information to the NRC Director of Site Operations (DSO) as well as to other federal agencies and appropriate state and local agencies. The radiological data collected by the licensee as well as the results of the NRC's independent onsite radiological monitoring, will be furnished to the DOE's Offsite Technical Director.

E.4.2 Environmental Protection Agency (EPA)

The EPA established Protective Action Guides (PAGs) for various aspects of radiological emergency response planning. These guides are used as a basis for offsite protective measures. EPA will assist in environmental monitoring and make recommendations on protective actions to protect public health and safety to the NRC Director of Site Operations (DSO). The EPA will assume long term offsite radiological monitoring from DOE at a time mutually agreeable to both agencies.

E.4.3 Departments of Health and Human Services (HHS) and Agriculture (USDA)

HHS through the Federal Drug Administration (FDA) has established recommendations regarding protective actions to be taken as a result of radioactive contamination of food and animal feedstuffs. In addition, FDA has published guidance on the use of KI for thyroid