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FROM:
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NRR RCVD DATE: 02/06/03

TO:

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FOR SIGNATURE OF : ** YEL **

DESC:

NRC Staff's Response to Task Interface Agreement
2002-02

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Stu - please get
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(yT) & take
lead in

January 29, 2003

STU

Ledyard B. (Tad) Marsh
Deputy Director
Division of Licensing Project Management
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Re: NRC Staff's Response to Task Interface Agreement 2002-02

Dear Mr. Marsh:

The Nuclear Utility Backfitting and Reform Group ("NUBARG")¹ has reviewed the NRC Staff response to Task Interface Agreement ("TIA") 2002-02, regarding emergency staffing levels at the R. E. Ginna Nuclear Power Plant (hereinafter "Ginna").² Although the TIA discusses an issue that the Staff is considering as a plant-specific compliance backfit, NUBARG is concerned with the potential generic implications of the NRC's actions; namely, that the NRC Staff may rely on the compliance exception to the requirements for a backfit analysis to inappropriately impose *guidance* in instances where the licensee has not committed to meet that *guidance* and the NRC has previously found that to be acceptable.

¹ NUBARG is a consortium of utilities (representing a number of operating power reactors) which was formed in the early 1980s and actively participated in the development of the NRC's backfitting rule (10 C.F.R. § 50.109) in 1985. NUBARG has subsequently monitored the NRC's implementation of the backfitting rule and regulatory reform efforts, including risk-informed, performance-based activities.

² Memorandum to A. R. Blough, NRC, from L. B. Marsh, NRC, "Response to the Task Interface Agreement (TIA 2002-02) Regarding the Minimum On-Shift and Augmentation staffing for Radiological Emergencies at R. E. Ginna Nuclear Power Plant (TAC No. MB5460)" (Dec. 31, 2002).

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The TIA indicates that the Staff's actions are not complete in that "[a]lthough the staff believes there is a basis for a compliance backfit at this time, the staff will be interfacing with the Office of the General Counsel to determine the legal status of previous correspondence."³ NUBARG urges the Staff to consider the comments provided herein before it makes a final decision on the matter. On the basis of NUBARG's review, as detailed in the discussion below, NUBARG concludes the following:

- The criteria discussed in TIA 2002-02 is *guidance*, and, unless a licensee has committed to meet the *guidance*, the NRC must base its oversight of emergency plans on the plant's licensing basis and NRC regulations. The TIA does not appear to demonstrate that Ginna's emergency staffing failed to meet *regulatory requirements*.
- The NRC cannot escalate the status of *guidance* to a regulatory requirement without following the requirements of the Administrative Procedure Act ("APA"). Moreover, if the Staff determines that it will impose a backfit and require Ginna to comply with NRC *guidance* regarding emergency staffing levels, it may not justify the backfit claiming that it is necessary for compliance with regulatory requirements.⁴

NUBARG recommends that the NRC Staff revise the TIA to reflect the appropriate regulatory status of the referenced criteria and guidance and to suspend action to evaluate the imposition of the backfit based on the compliance exception to the requirements for performing a backfit analysis. If the NRC determines as a result of further deliberations that it will consider imposing a backfit in this instance, 10 C.F.R. § 50.109(a)(3) requires that the NRC perform a backfit analysis and demonstrate that imposing a change in Ginna emergency staffing levels would provide a substantial increase in protection and safety and that the costs of implementation are justified in view of the increased protection.

BACKFITTING

The NRC issued the backfit rule to provide for a formal, systematic, and disciplined review of new or changed positions before imposing them, and to enhance regulatory stability by ensuring that changes in regulatory Staff positions are justified and suitably defined.⁵ Through the discipline of the backfitting process, licensees rely on NRC approval of its implementation of regulatory requirements without continual reinterpretations by the NRC Staff,

³ TIA 2002-02, at 2.

⁴ 10 C.F.R. § 50.109(a)(4)(i).

⁵ NRC NUREG-1409, "Backfitting Guidelines" (June 1990), at 1.

unless the NRC justifies that changes are necessary for adequate protection, compliance, or to substantially increase safety.⁶

NRC Staff guidance for implementing the backfit rule discusses the situation where an NRC review may conclude that a licensee's program in a specific area does not satisfy a regulation, license condition, or commitment, as follows:

Where the staff previously accepted the licensee's program as adequate, any staff-specified change in the program would be classified as a backfit. For example, in the case of a plant with an operating license, once the [Safety Evaluation Report] is issued signifying staff acceptance of the programs described in the safety analysis report (SAR) [or in the emergency plan], the licensee should be able to conclude that its commitments in the SAR [or emergency plan] satisfy the NRC requirements for a particular area. *If the staff were to subsequently require that the licensee agree to additional action other than that specified in the SAR [or emergency plan] for the particular area, such action would constitute a backfit.*⁷

In determining whether a backfit would meet the exception to bring the plant into compliance with NRC requirements, the Staff provides further guidance, as follows:

New or revised staff positions are backfits when they are imposed on licensees and result in a change in structures, systems, design, or procedures (as described in 10 CFR 50.109). A backfit analysis is required whenever new or revised positions are imposed to achieve cost-justified substantial safety enhancements. A backfit analysis is not required if the new or changed position is imposed to bring a facility into compliance or if it is necessary to provide assurance of adequate protection. In those cases, however, a written evaluation is needed to provide the objectives of and reasons for the modification and the basis for invoking the exception. *An evolving understanding of issues does not, by itself, define which category fits a particular backfit.* Judgment must be applied to the facts of each particular case to determine whether

⁶ 10 C.F.R. § 50.109.

⁷ Emphasis added. NUREG-1409, at 18.

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the backfit is for compliance, to provide adequate protection, to redefine adequate protection, or to achieve a cost-justified substantial safety enhancement. For example, with regard to compliance, the 1985 statement of considerations for 10 CFR 50.109 indicates that "the compliance exception is intended to address situations where the licensee has failed to meet known and established standards of the Commission because of *omission or mistake of fact ... new or modified interpretations of what constitutes compliance would not fall with the exception....*"⁸

DISCUSSION

In this section, we provide a summary of the TIA, a history of the NRC's emergency planning regulations and guidance applicable to the TIA, and background information on the Ginna emergency plan review and NRC acceptance. The discussion provides the basis for the NUBARG conclusions stated above.

A. TIA 2002-02

In TIA 2002-02, the Staff states that it appears that the Ginna emergency staffing levels do not conform with NRC guidance in NUREG-0654, which is referenced in Regulatory Guide ("RG") 1.101 as providing the criteria which the NRC would use to evaluate the adequacy of emergency plans.⁹ On this basis, the Staff states that it appears that Ginna emergency staffing levels fail to meet the provisions in 10 C.F.R. § 50.47(b)(2).¹⁰ We are unaware of the referenced guidance being elevated to the status of a regulatory requirement using proper Administrative

⁸ Emphasis added. NUREG-1409, at 12.

⁹ Specifically, TIA 2002-02 references NRC Regulatory Guide ("RG") 1.101, Rev. 2, "Emergency Planning and Preparedness for Nuclear Power Reactors" (Oct. 1981), and NUREG-064/FEMA-REP-1, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants" (Nov. 1980).

¹⁰ 10 C.F.R. § 50.47(b)(2) states: "On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available and the interfaces among various onsite response activities and offsite support and response activities are specified."

Procedures Act ("APA") processes and procedures. The specific deficiencies that the Staff claims are "[c]ontrary to the requirements of 10 CFR 50.47(b)(2)" are:

- the licensee had not specified a dedicated individual to perform the on-shift chemistry/radio-chemistry task, which is identified as a non-collateral task in Table B-1 of NUREG-0654;
- the licensee had not described measures taken to compensate for not providing the eleven 30-minute responders specified in NUREG-0654 for performing certain tasks; and
- the licensee had not described who would fill certain 60-minute responders' tasks or described an acceptable alternative.¹¹

The TIA indicates that the Staff does not consider the current content of the Ginna emergency plan regarding staffing levels "an acceptable alternative practice or method relative to the on-shift staffing and augmentation levels referred to in RG 1.101."¹²

B. Emergency Planning Regulatory History

This section discusses the history of the NRC's emergency planning regulations and the role of NRC guidance (particularly NUREG-0654) for implementing the requirements. It clearly demonstrates that NUREG-0654 provides guidance and does not constitute regulatory requirements. In addition, a review of the NRC's standard for its "reasonable assurance" finding indicates that the NRC may exercise judgment and accept alternatives to the implementing guidance used to evaluate emergency preparedness.

1. Rulemaking

The NRC issued a final rule revising the emergency planning requirements effective November 3, 1980, following the March 1979 event at Three-Mile Island, Unit 2.¹³ In addition to establishing more formal interactions between licensees and offsite authorities for emergency planning, the revised rules required that a licensee or applicant submit its emergency plan to the NRC. The NRC would review the plan and make a finding as to whether the

¹¹ TIA 2002-02, at 2.

¹² TIA 2002-02, at 2.

¹³ 45 Fed. Reg. 55,402 (Aug. 19, 1980).

proposed onsite and offsite emergency preparedness would provide reasonable assurance that adequate protective measures would be taken in the event of a radiological emergency.

The 1980 rulemaking also added emergency planning standards for both onsite and offsite emergency response plans. These planning standards were set forth in 10 C.F.R. § 50.47(b) and were intended to be used by the NRC in making its determination of the adequacy of emergency plans under the requirements set forth in the final regulation.¹⁴ The relevant planning standard discussed in TIA 2002-02, as noted above, is 10 C.F.R. § 50.47(b)(2), which specifies the requirements for on-shift and augmentation emergency staffing levels.

2. Statement of Considerations

The Statement of Considerations for the 1980 rulemaking states that the NRC would use the planning standards in 10 C.F.R. § 50.47 in making its determinations concerning the adequacy of emergency plans.¹⁵ Also, the NRC would make a finding as to whether the state of onsite and offsite emergency preparedness provides reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. This finding would be based on a review of Federal Emergency Management Agency ("FEMA") findings and determinations as to whether State and local emergency plans are adequate and capable of being implemented, and on the NRC's assessment as to whether the applicant's/licensee's emergency plans are adequate and capable of being implemented.

3. NRC and FEMA Guidance for Implementing Regulatory Requirements

The NRC has authority over a licensee's onsite emergency planning, while the FEMA, in conjunction with State and local authorities, has authority over offsite emergency planning. Consistent with this approach, the NRC and FEMA issued jointly-created guidance for use by licensees and regulatory agencies when developing or assessing onsite and offsite emergency planning activities.

Such a joint document was referenced in the 1980 rulemaking, where the NRC explained that the planning objectives from NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants – For Interim Use and Comment," January 1980, formed the

¹⁴ *Id.*

¹⁵ *Id.*

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basis for the regulatory requirements in 10 C.F.R. § 50.47(b).¹⁶ Thus, the NRC distinguished between which elements of NUREG-0654 should be elevated to the status of a requirement through the rulemaking process and which should remain guidance. Initially, the rule included a footnote to the planning standards that stated:

These standards are addressed by specific criteria in NUREG-0654: FEMA-REP-1 entitled "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants – For Interim Use and Comment," January 1980.¹⁷

The NRC revised the rule in 1984 and deleted the footnote.¹⁸ In addressing a public comment concerning such deletion, the NRC provided the following rationale:

The [deletion] of a reference to NUREG-0654 will not affect its use as a *guidance document* for emergency planning. In the 1980 rulemaking, the Commission included this reference as a means of formally approving the use of NUREG-0654. See 45 FR 55402, 55406 (August 19, 1980). NUREG-0654 is endorsed by Regulatory Guide 1.101, and will continue to be used by reviewers in evaluating the adequacy of emergency preparedness at nuclear power reactor sites. (Emphasis added.)

Further affirming the regulatory status of NUREG-0654, the NRC Atomic Safety and Licensing Appeal Board has determined that the criteria described in NUREG-0654 were intended to serve solely as regulatory guidance, not regulatory requirements.¹⁹ This position is also reflected by Regulatory Guide 1.101, "Emergency Planning and Preparedness for Nuclear Power Reactors," (Revision 2, October 1981), which references the final version of NUREG-

¹⁶ *Id.*, at 55,406. Note that the NRC did not "incorporate by reference" NUREG-0654, but extracted the objectives from NUREG-0654 as the planning standards in the regulations (*i.e.*, 10 C.F.R. § 50.47(b)).

¹⁷ *Id.*, at 55,409.

¹⁸ 49 Fed. Reg. 27,733 (July 6, 1984).

¹⁹ *Metropolitan Edison Co. (Three Mile Island Nuclear Station, Unit No. 1)*, ALAB-698, 16 NRC 1290, 1298- 99 (1982) ("TMI"), *aff'g* LBP-81-59, 14 NRC 1211, 1460 (1981).

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0654/FEMA-REP-1, published in November 1980 as Revision 1. Regulatory Guide 1.101 states in relevant part:

The criteria and recommendations contained in Revision 1 of NUREG-0654/FEMA-REP-1 are considered by the NRC Staff to be generally acceptable methods for complying with the standards in § 50.47 of 10 CFR Part 50 that must be met in onsite and offsite emergency response plans. Furthermore, FEMA, NRC, and other involved Federal agencies intend to use the *guidance* contained in Revision 1 of NUREG-0654/FEMA-REP-1 in their individual and joint reviews of the radiological emergency response plans and preparedness of applicants for and holders of a license to operate a nuclear power plant. (Emphasis added.)

4. NRC Finding of "Reasonable Assurance"

For operating plants such as Ginna, following the 1980 rulemaking, Section 50.47(a) required the NRC to make a finding that there was "reasonable assurance" that adequate protective measures could be taken in the event of a radiological emergency. NRC guidance for Staff review of an applicant's emergency plans is instructive as to the review standards it might have applied to its review of an operating plant's emergency plan following the 1980 amendment to the emergency planning regulations. NUREG-0800, "Standard Review Plan" (July 1981), Section 13.3, "Emergency Planning," delineates the review process and guidance for assessing an applicant's level of adequacy for emergency preparedness. The document lists relevant regulations and the implementing guidance in NUREG-0654 as standards for review. NUREG-0800 states that the reviewer should recognize:

[T]hat the detailed application of the acceptance criteria will in many instances require the exercise of judgement on the part of the reviewer. The reasonableness and adequacy of the factors involved should be viewed in the light of general emergency planning and response experience, bearing in mind that the broad objective of radiological emergency plans is to protect the public by mitigating the potential health and safety consequences of radiation exposure. Ideally, such plans would assure neither an over reaction nor an under reaction to unexpected events.²⁰

²⁰ NUREG-0800, at 13.3-3.

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In responding to challenges regarding the NRC's finding of "reasonable assurance," the NRC Staff has recognized that emergency plans need not include every possible element to be adequate. For example, in a decision of the Director of the Office of Nuclear Reactor Regulation denying a petition to reconsider its "reasonable assurance" finding regarding emergency preparedness at the Pilgrim Nuclear Power Station, the Director discussed the NRC's review standard for emergency planning. The Director concluded that when the NRC reviews emergency plans, "the question is not whether the plan is perfect, but whether it provides for 'reasonable assurance of adequate protection of the public health and safety.'"²¹

C. Regulatory Background – Ginna Emergency Planning

Ginna was one of a number of operating plants at the time of the 1980 amendment to the NRC's emergency planning regulations following the accident at Three Mile Island, Unit 2.²² In a May 25, 1983, letter, the NRC explained that it had received the Ginna emergency plans and procedures and that the licensee had adequately implemented the emergency preparedness programs.²³ The NRC letter formally informed the licensee, following a "comprehensive" appraisal of the Ginna emergency plan and resolution of deficiencies and improvements items, that "the NRC has found that onsite and offsite emergency preparedness is adequate, that [the Ginna] emergency plans have been upgraded in accordance with NUREG-0737 Item III.A.2.1 and that there is reasonable assurance that prompt protective measures can and will be taken to protect the public."²⁴ The NRC also indicated that "we consider NUREG-0737 Item III.A.2.1 as complete for R. E. Ginna."²⁵

²¹ *Boston Edison Company* (Pilgrim Nuclear Power Station), DD-93-17, 38 NRC 264, 269 (1993).

²² In addition to the rulemaking, operating plants were also subject to post-Three Mile Island-2 Orders to take certain actions, including upgrading emergency plans to the amended rule (*see* NUREG-0737, "Clarification of TMI Action Plan Requirements" (Nov. 1980), Item III.A.2, "Improving Licensee Emergency Preparedness – Long-Term").

²³ D. Crutchfield, NRC, to J. Maier, Rochester Gas and Electric Corp., "NUREG-0737 Item III.A.2.1, Emergency Plan Upgrade to Meet Rule, R. E. Ginna Nuclear Power Plant" (May 25, 1983).

²⁴ *Id.*

²⁵ *Id.*

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During the NRC inspection that initiated the TIA request, the Ginna Corporate Nuclear Emergency Planner stated that the on-shift organization was increased from eight to nine positions in 1982, has remained at the level since that time, and has never included a chemistry/radio-chemistry technician.²⁶ Therefore, the NRC was on notice regarding how Ginna was satisfying emergency planning regulations, and the initial finding of the adequacy of the Ginna emergency staffing levels appears to remain equally effective for the current emergency plan staffing levels.

SUMMARY OF CONCLUSIONS

Although the NRC Staff indicates its agreement that a backfit may be involved in resolving the Ginna issue, it proposes that it may justify the change as necessary to comply with NRC regulations.²⁷ In TIA 2002-02, the NRC Staff has not, however, demonstrated that the Ginna emergency staffing levels do not meet the standard specifically stated in the *regulations*, but only that the staffing levels do not comply with *guidance* in NUREG-0654. Therefore, the NRC Staff's plant-specific imposition of the criteria of NUREG-0654 for Ginna would not comply with the regulatory provisions for the compliance exception to the backfit requirements.

Please contact us if you have any questions.

Sincerely

Thomas C. Poindexter
Patricia L. Campbell
Counsel for NUBARG

cc: Charles Ader, NRC
Chairman, Committee to Review
Generic Requirements

²⁶ See R.E. Ginna - NRC Inspection Report 50-244/02-09 (May 16, 2002), at 3.

²⁷ The regulations provide that a backfit analysis need not be performed if the NRC finds "[t]hat a modification is necessary to bring a facility into compliance with a license or the rules or orders of the Commission, or into conformance with written commitments by the licensee." 10 C.F.R. § 50.109(a)(4)(i).