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**U.S. Nuclear Regulatory Commission
Document Control Desk
Attn: Allen R. Johnson, Project Directorate I-3
Washington, D.C. 20555**

**Subject : R.E. Ginna Nuclear Power Plant
Docket No. 50-244
NUMARC NESP-007 Emergency Action Levels (EAL) Submittal
for NRC review prior to implementation.**

Dear Allen R. Johnson:

Enclosed for your review and approval is one complete set of Upgraded Emergency Action Levels (EAL) for the R.E. Ginna Nuclear Power Plant, written using the methodology outlined in NUMARC NESP-007 (reference 1). Prompt review is requested so that training and implementation can be completed by July 1, 1994, as agreed to by the participants and New York State. Approval after this date may delay implementation. To minimize unnecessary duplication during your review, and shorten the review cycle, we recommend that this submittal be reviewed together with the other NY State EAL upgrade project submittals.

This submittal is in the form of the EAL generation package which includes the Plant Specific EAL Guideline, the Fission Product Barrier Evaluation, the EAL Binning Document, the EAL Technical Basis Document and the actual EALs in tabular format. The associated verification and validation report is also included to assist you complete your review.

This upgrade was performed as a joint project between Niagara Mohawk's Nine Mile 1 and 2 plants, Rochester Gas & Electric's R.E Ginna plant, Consolidated Edison's Indian Point 2 plant and NYPA's Indian Point 3 and James A FitzPatrick plants. This is to ensure consistent emergency classifications between all project participants to the greatest extent possible, limited only by plant design difference.

Very truly yours,

Robert Mecreddy
Dr. Robert Mecreddy

xc: Ginna Senior Resident Inspector w/o enclosure

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R.E. Ginna Nuclear Power Station EAL Upgrade Project Introduction

Prior to the acceptance by the NRC of NUMARC/NESP-007 "Methodology for Development of Emergency Action Levels" as an acceptance alternative to the NUREG 0654 EAL guidance, the four nuclear utilities in the State of New York decided to perform a joint implementation of the new methodology. This upgrade project involved the following plants:

- * Nine Mile Point Unit 1 (NMPC)**
- * Nine Mile Point Unit 2 (NMPC)**
- * James A. Fitzpatrick Nuclear Power Plan (NYPA)**
- * Indian Point Station 2 (Con Ed)**
- * Indian Point 3 Nuclear Power Station (NYPA)**
- * R.E. Ginna Nuclear Power Station (RG&E)**

While the upgraded EALs are site specific, an objective of the upgrade project was to ensure conformity and consistency between the sites to the extent possible.

The following site specific EAL developmental documents are enclosed to support the EAL review process:

- * R.E. Ginna Plant - specific EAL Guideline (PEG) (Section 2)**

The PEG is the R.E. Ginna interpretation of the NUMARC methodology for developing EALs. The PEG identifies deletions from the NUMARC methodology by striking out words and phases that are not applicable to R.E. Ginna; additions are identified by underlining new words and phases. The source of documents for PEG changes from NUMARC methodology are listed in the reference section of the PEG.

- * R.E. Ginna Fission Product Barrier Evaluation (FPBE) (Section 3)**

NESP-007 prescribes example EALs for each of the three fission product barriers. An EAL is defined by one or more plant conditions. Each EAL may consist of one or more conditions representing either a loss of the barrier or a potential loss of the barrier. Some EALs may have only loss conditions, others only potential loss conditions, some have both loss and potential loss conditions.

Based on the number of example EALs, and the number of loss and potential loss conditions, the set of conditions that can yield a given emergency classification can be determined. An evaluation of each condition or set of conditions was made to determine if it properly defines the appropriate threshold for the classification. If a condition or set of conditions was appropriate, a comment reflecting this conclusion was recorded in this document. If a condition or set of conditions is determined to be inappropriate, it is lined out and the reason for this condition is similarly recorded. The result of this evaluation is a discrete set of quantified EALs which represent the NUMARC fission product barrier loss matrices.

*** R.E. Ginna EAL Binning Document (Section 4)**

Since the format presented in NUMARC/NESP-007 is inadequate for implementation, the EALs defined by the PEG and FPBE must be binned into categories and sub-categories which support ease of use. The binning document identifies where each PEG/FPBE IC is addressed within the presentation scheme.

*** R.E. Ginna EAL Technical Bases Document (Section 5)**

The EAL Technical Bases Document provides an explanation and rationale for each of the emergency action levels (EALs) included in the EAL Upgrade Program. It is also intended to facilitate the review process of the R.E. Ginna EALs and provide historical documentation for future reference. This document is also intended to be used by those individuals responsible for implementation of the R.E. Ginna classification procedure as a technical reference and aid in EAL interpretation.

*** R.E. Ginna Verification & Validation Report (Section 6)**

The R.E. Ginna Verification & Validation Report documents the process conducted to verify and to validate the site specific EALs and supporting documentation. This document also includes the comments received during validation along with comment resolutions.

The verification process was performed to ensure the R.E. Ginna EALs and classification procedures are technically correct. The R.E. Ginna EAL verification was conducted prior to the EAL validation exercises. The technical accuracy of the upgraded EALs were verified through tabletop reviews which addressed the following EAL attributes:

Format and Writing

- * Human engineering factors of the EAL Writers Guide**
- * Format, appearance and terminology consistent, to the extent possible, among BWR and PWR plants involved in the EAL Upgrade Project.**
- * EAL Structure**
- * EAL terminology is clear and well defined**

Technical Accuracy

- * Technical completeness and appropriateness for each classification level.**
- * Potential for classification upgrade only when there is an increased threat to public health and safety.**
- * Logical progression in classification for combinations of multiple events.**

The validation process ensures that the R.E. Ginna EALs and classification procedures are usable and correct, and ensures that emergency response personnel are able to arrive at consistent interpretations of EALs under similar conditions. The EALs were validated through observation of emergency response organization personnel responding to simulated emergency events. The group of EALs selected for validation were sufficiently representative of all the EALs. The following attributes were tested:

Usability

- * User Friendliness**
- * Ease of place-finding**
- * Ease of place-keeping**
- * Ease of upgrading and declassifying**

Operational Correctness

- * Potential for classification upgrade only when there is an increased threat to public health and safety.**
- * Technical completeness and appropriateness for each classification level.**
- * A logical progression in classification for combinations of multiple events.**