Docket No. 50-331

Iowa Electric Light and Power Company ATTN: Mr. Lee Liu President and Chief Executive Officer IE Towers

P. O. Box 351 Cedar Rapids, IA 52406

Gentlemen:

To verify that Emergency Response Facilities (ERFs) at licensed nuclear power plants meet the requirements of 10 CFR 50.47(b), Appendix E of 10 CFR Part 50, and orders issued to implement Supplement 1 to NUREG-0737, the NRC conducts special appraisals of these facilities.

During the period November 17 through 21, 1986, the NRC conducted a special ERF Appraisal at the Duane Arnold Energy Center, authorized by NRC Operating License No. DPR-49. Areas examined during the appraisal are described in the enclosed report (50-331/86020). Within these areas, the appraisal team reviewed selected procedures and representative records, inspected the ERFs and related equipment, observed the 1986 annual emergency preparedness exercise, and interviewed personnel. The team's findings regarding the annual exercise have also been described in Inspection Report No. 50-331/86015(DRSS).

No violations of NRC requirements were identified during the course of this appraisal. However, several areas were identified where equipment installation was incomplete or where modifications have been deemed necessary in order to provide adequate assurance that the ERFs and the related equipment are capable of supporting those functions needed to assist your emergency response organization in taking adequate corrective measures in the event of a radiological emergency at the Duane Arnold Energy Center. These items are identified as Open Items in the enclosed appraisal report and are also summarized in Enclosure 1 to this letter.

The findings also indicate that there are items in your emergency preparedness program which need improvement. These items are identified in the text of the enclosed appraisal report. These improvements are areas which, based on professional judgement, we feel should be corrected.

Accordingly, you are requested to submit a written statement, within 45 days of the date of this letter, which describes your planned actions on each of the identified Open Items, including a schedule for completion of these actions.

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In accordance with 10 CFR 2.790 of the Commission's regulations, a copy of this letter, the enclosures, and your response to this letter will be placed in the NRC Public Document Room.

The responses directed by this letter are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

"Original signed by W.D. Shafer"

W. D. Shafer, Chief Emergency Preparedness and Radiological Protection Branch

Enclosures:

1. Appraisal Open Items

 Inspection Report No. 50-331/86020(DRSS)

cc w/enclosures:

D. Mineck, Plant Superintendent Nuclear

W. Miller, Assistant Plant Superintendent Technical Support

DCS/RSB (RIDS) Licensing Fee Management Branch Resident Inspector, RIII Thomas Houvenagle, Iowa State

Commerce Commission D. Matthews, EPB, OIE E. Williams, EPB, OIE

RIII Ploski/lms YES Foster 2/467

RIII WGS Snell 2/6/87 RIII Jackiw 2/6 RILI

ENCLOSURE

Open Items Identified During The Appraisal

- Ensure that the following TSC equipment and systems can receive power from an essential power source: HVAC system; radio base station for field team communications; new Plant Process Computer (PPC) (VAX Model 8600); MIDAS terminal used for offsite dose calculation, and TSC lighting. (50-331/86020-01) (Section 1.1.3.3)
- 2. Ensure that the new PPC (VAX Model 8600) will be electrically isolated from plant safety systems, and that such isolation will be adequately verified, validated, and documented. (50-331/86020-02) (Section 1.2.2.3)
- 3. Develop adequate provisions for generating offsite dose projections for releases that enter the environment through unmonitored pathways. (50-331/86020-03) (Section 1.2.4.2)
- 4. Ensure that the following six factors, which can adversely affect offsite dose calculations, are corrected or are adequately compensated for:
 - Wind speed and possibly wind direction measurements, for at least the northerly direction are significantly affected by meteorological tower wake effects;
 - The reliability of the onsite meteorological data is suspect as the sensors' output signals are processed by heat sensitive equipment kept in a structure which is not air-conditioned;
 - The meteorological data reliability is suspect as signal conditioning equipment is not electrically protected from power surges;
 - Computerized meteorological data quality control checks are generally too rudimentary to identify and eliminate highly suspect values;
 - The power-law relationship used to estimate wind speed at the offgas stack height is inappropriate; and
 - A Table in EPIP 3.3 that could be used to convert a weather observation into an atmospheric stability class is incorrect. (50-331/86020-04) (Section 1.2.4.2)
- 5. Develop procedures and provide related training to appropriate emergency response personnel to enable them to retrieve and display historical plant data that are stored using the PPC or SPDS. (50-331/86020-05) (Section 1.2.5.1)
- 6. Establish and maintain an availability log for the present and the new PPC. (50-331/86020-06) (Section 1.2.6)

Enclosure

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- 7. Establish and maintain a sensor through computer calibration process for the PPC. (50-331/86020-07) (Section 1.2.6.1)
- 8. Proceduralize guidance related to the evacuation and relocation of OSC personnel, including specifying: what criteria warrant OSC evacuation; which supervisory and staff personnel would relocate to the TSC, ORRA, or some other location; and how OSC personnel accountability would be maintained during such a relocation. (50-331/86020-08) (Section 2.1.1.3)