CENTRAL FILES

UNITED STATES NUCLEAR REGULATORY COMMISSION REGION III 799 ROOSEVELT ROAD GLEN ELLYN, ILLINOIS 60137

# JAN 1 0 1977

Docket No. 50-331

Iowa Electric Light and Power Company
ATTN: 'Mr. Duane Arnold, President
 IE Towers
P. 0. Box 351
Cedar Rapids, Iowa 52406

Gentlemen:

As discussed in my letter of September 1, 1976, the NRC has conducted the Confirmatory Measurements Program with the operating nuclear power facilities in Region III since 1973. My staff has completed a review of your Confirmatory Measurements results at the Duane Arnold Energy Center from 1974 through September 15, 1976. Please find enclosed a summary of your performance history. This information is provided to assist you in assessing your program for identification and quantification of radionuclides in effluents.

The NRC considers achieving acceptable results in this program to be of significant importance. We will continue to focus on this aspect of your operations in future inspections.

Enclosures to this letter are: Table 1, Figure 1 and Confirmatory Measurements Program Performance History for Duane Arnold Energy Center which includes the key for symbols used in Table 1.

We appreciate your continued cooperation and will gladly discuss any questions regarding this matter.

Sincerely yours,

James G. Keppler Regional Director

Enclosures: As stated

cc w/encls: Mr. G. G. Hunt, Chief PDR Engineer Local PDR Central Files NSIC Reproduction Unit NRC 20b TIC

RENOLUTION & CRINTERNI

# TABLE 1

## COMPUTER DATA ANALYSIS SYSTEM

## Facility: Duane Arnold

## Number of Inspections: 3

## Number of Comparisons: 35

Analyze Results:

U		LLD		Α		Р		D		N	
<u>No.</u>	Pct	No.	Pct	No.	Pct	No.	Pct	No.	Pct	No.	Pct
3	8.6	14	38.9	11	30.6	2	5.7	2	5.7	3	8.6

Invalidated Samples:

The following sample comparisons were not considered for Acceptable/ Unacceptable calculations:

Xel33m	- 1U	(gas)
Number/Percent Acce	ptable:	13/76.5%
Number/Percent Unac	ceptable	: 4/23.5%
Unacceptable Compar	isons:	
Liquid -	Beta (1	of 3)

Off-gas - Xel33 (	L OI	2)	
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P Filter - Mn54 (1 of 1), Co58 (1 of 1)

9



Kt 2 12 x 20 TO THE INCH 46 1970

MADE IN U.S.A.

7 X 10 INCHES

Figure 1

ACCEPTABLE OF PERCENTAGE

CONFIRMATORY MEASUREMENTS PROGRAM PERFORMANCE HISTORY FOR DUANE ARNOLD ENERGY CENTER

#### I. Introduction

The following information has been compiled for the information of licensees in NRC Region III to assist in developing their laboratory capability in the NRC Confirmatory Measurements Program. Data utilized in the analyses have been discussed in the following IE Inspection Reports:

050-331/76-18 050-331/76-07

050-331/75-06

Additional results reported by the licensee to the NRC have been incorporated into the evaluation analyses.

#### II. Confirmatory Measurements Program

A description of all parameters and criteria utilized in the Confirmatory Measurements Program is presented in the attachment "Confirmatory Measurements Program," to the letter from Mr. J. G. Keppler, Director, USNRC, Region III, to Iowa Electric Light and Power Company dated September 1, 1976.

In addition, the following definitions are utilized in the performance history evaluation:

Unreported (U)

results reported for radionuclides by HSL which were above the LD requirements, but the licensee did not report the radionuclide as being present in the sample. U results are considered in disagreement.

results reported by HSL which are less

than the LD criteria. These results are omitted from future consideration.

LLD

Analyze Results

The results obtained by the NRC Computer Data Analysis System which divide the Confirmatory Measurements results into the U, LLD, A, P, D, and N categories. those results which were not considered for Acceptable/Unacceptable calculations due to differences in laboratory methods, sampling integrity compromises, or Confirmatory Measurement Program discrepencies. The following isotopic identifications are considered invalidated (in addition to compromised samples):

Xe	133m	(gas)
Kr	85	(gas)
La	140	(all media)
Isc	topes o	n charcoal adsorbers
otł	ner thar	I-131

the number and associated percentage of results identified in the Analyze Results under A and P which were not subsequently invalidated.

the number and associated percentage of results identified in the Analyze Results under U and D which were not subsequently invalidated.

Unacceptable Comparisons

the sample, isotope, and number of unacceptable comparisons of the total comparisons identified in Number/Percent Unacceptable.

#### III. Historical Performance

The results of the Confirmatory Measurements Program were reviewed using the NRC Computer Data Analysis System. The summary results of these analyses are presented in Table 1. Figure 1 presents performance results as a function of time (trend analysis) for each inspection sample collection period.

A discussion of the licensee's unacceptable comparisons and the licensee's proposed corrective action is presented in the previously referenced IE inspection reports.

Number/Percent Acceptable

Number/Percent Unacceptable