

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

JAN 10 1977

Commonwealth Edison Company  
 ATTN: Mr. Byron Lee, Jr.  
 Vice President  
 P. O. Box 767  
 Chicago, Illinois 60690

Docket No. 50-10  
 Docket No. 50-237  
 Docket No. 50-249

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 Dresden Nuclear Power Station, Units 1, 2 and 3, 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 Dresden Nuclear Power Station 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*  
 James G. Keppler  
 Regional Director

Enclosures:  
 As stated

cc w/encls:  
 Mr. B. B. Stephenson,  
 Station Superintendent

Central Files  
 Reproduction Unit  
 NRC-20b  
 PDR

Local PDR  
 NSIC  
 TIC  
 Anthony Roisman, Esq.,  
 Attorney



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TABLE 1  
COMPUTER DATA ANALYSIS SYSTEM

Facility: Dresden

Number of Inspections: 5

Number of Comparisons: 124

Analyze Results:

U		LLD		A		P		D		N	
No.	Pct	No.	Pct	No.	Pct	No.	Pct	No.	Pct	No.	Pct
31	25.0	17	13.7	29	23.4	17	13.7	16	12.9	14	11.3

Invalidated Samples:

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

Xe133m	-	5U	(gas)
Kr85	-	1U	(gas)
La140	-	1A, 1LLD	(liquid)
La140	-	3U, 2D	(particulate filter)

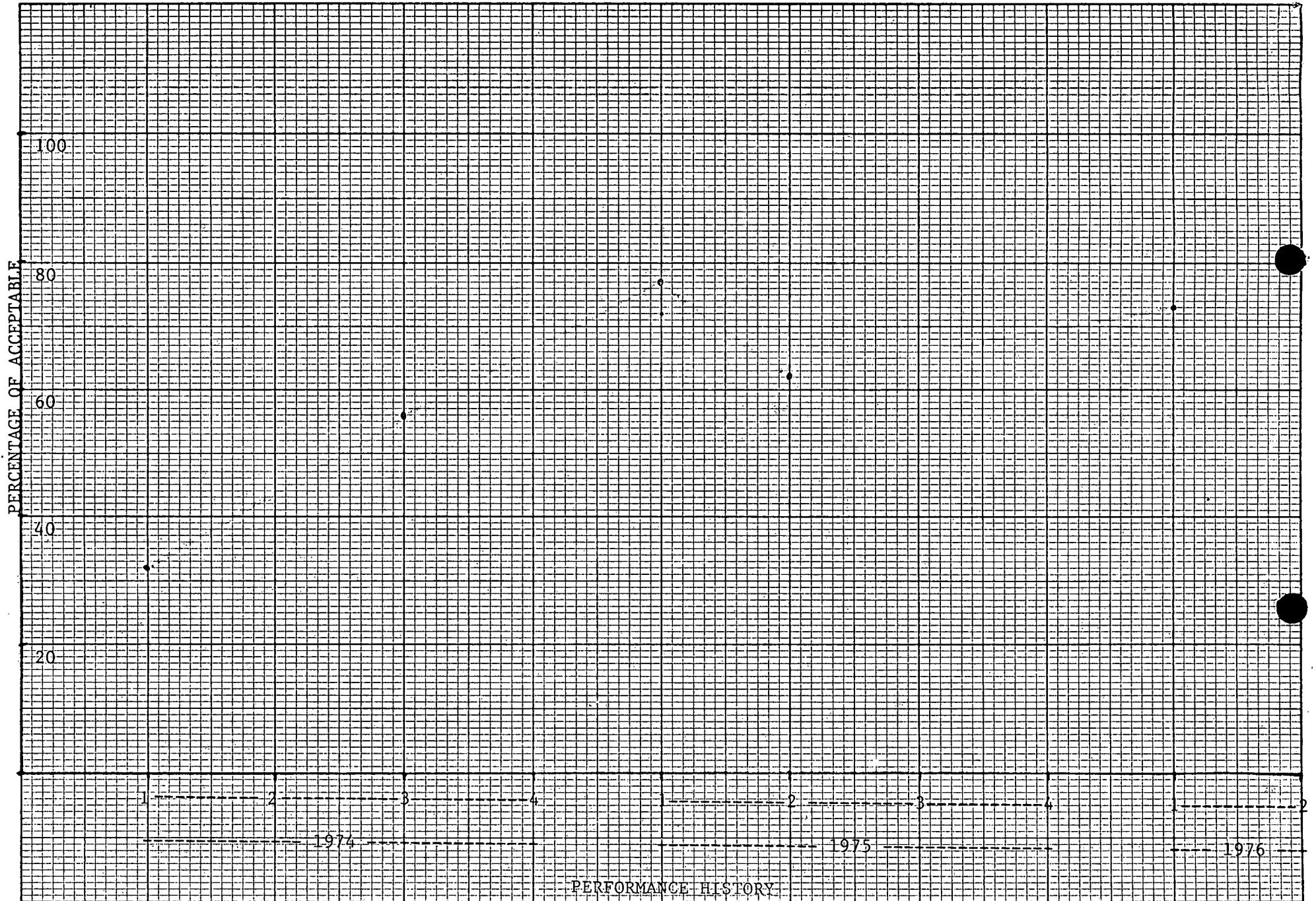
Number/Percent Acceptable: 45/55.6%

Number/Percent Unacceptable: 36/44.4%

Unacceptable Comparisons:

Liquid	-	Sr89 (2 of 3), Sr90 (1 of 3), Ce141 (1 of 1), Mn54 (1 of 1), Co58 (2 of 2), Co60 (2 of 5), Zr95 (1 of 1), Nb95 (1 of 1), Ag110m (1 of 1), I131 (1 of 1), Beta (1 of 4).
Off-Gas	-	Xe135 (1 of 2), Xe133 (1 of 5)
P Filter	-	Mn54 (2 of 2), Co60 (2 of 5), Cs134 (1 of 1), Cs137 (2 of 4)
C Filter	-	I131 (4 of 6)

9/15/76



DRESDEN

Figure 1

CONFIRMATORY MEASUREMENTS PROGRAM PERFORMANCE HISTORY FOR DRESDEN NUCLEAR  
POWER STATION, UNITS 1, 2 AND 3

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:

050-010/76-09	050-010/75-08
050-237/76-11	050-237/75-13
050-249/76-10	050-249/75-11
050-010/75-02	050-101/76-03
050-237/75-03	050-237/76-02
050-249/75-03	050-249/76-02

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 Commonwealth Edison 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.
- LLD - results reported by HSL which are less than the LD criteria. These results are omitted from future consideration.
- 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.

Invalidated Samples - those results which were not considered for Acceptable/Unacceptable calculations due to differences in laboratory methods, sampling integrity compromises, or Confirmatory Measurement Program discrepancies. The following isotopic identifications are considered invalidated (in addition to compromised samples):

Xe 133m (gas)  
Kr 85 (gas)  
La 140 (all media)  
Isotopes on charcoal adsorbers  
other than I-131

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

Number/Percent Unacceptable - 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.