



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

Central Files

SEP 08 1978

Docket No. 50-346

Toledo Edison Company
ATTN: Mr. James S. Grant
Vice President - Energy
Supply
Edison Plaza
300 Madison Avenue
Toledo, OH 43652

Gentlemen:

This refers to the inspection conducted by Mr. A. G. Januska of this office on August 21-23, 1978, of activities at the Davis-Besse Nuclear Power Station, Unit 1 authorized by NRC Operating License No. NPF-3 and to the discussion of our findings with Mr. Green and others of your staff at the conclusion of the inspection.

The enclosed copy of our inspection report identifies areas examined during the inspection. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations, and interviews with personnel.

During this inspection, certain of your activities appeared to be in noncompliance with NRC requirements, as described in the enclosed Appendix A. With regard to the first item of noncompliance, the inspection showed that action had been taken to correct the identified noncompliance and to prevent recurrence. Consequently, no reply to that item of noncompliance is required and we have no further questions regarding this matter at this time.

This notice is sent to you pursuant to the provisions of Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Section 2.201 requires you to submit to this office within twenty days of your receipt of this notice a written statement or explanation in reply, including for each item of noncompliance: (1) corrective action taken and the results achieved; (2) corrective action to be taken to avoid further noncompliance; and (3) the date when full compliance will be achieved.

7814110263

SEP 08 1978

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter, the enclosures, and your response to this letter will be placed in the NRC's Public Document Room, except as follows. If the enclosures contain information that you or your contractors believe to be proprietary, you must apply in writing to this office, within twenty days of your receipt of this letter, to withhold such information from public disclosure. The application must include a full statement of the reasons for which the information is considered proprietary, and should be prepared so that proprietary information identified in the application is contained in an enclosure to the application.

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

Sincerely,

A. B. Davis, Chief
Fuel Facility and Materials
Safety Branch

Enclosures:

1. Appendix A, Notice of Violation
2. IE Inspection Rpt No. 50-346/78-22

cc w/encs:

T. Murray, Station
Superintendent
Central Files
Reproduction Unit NRC 20b
PDR
Local PDR
NSIC
TIC
U. Young Park, Power
Siting Commission

OFFICE	RIII	RIII	RIII	RIII	RIII	RIII
SURNAME	Januska/dec	Essig	Davis	Tambling		
DATE	9/6/78					

Appendix A

NOTICE OF VIOLATION

Toledo Edison Company

Docket No. 50-346

Based on the inspection conducted on August 21-23, 1978, it appears that certain of your activities were in noncompliance with NRC requirements, as noted below. Both are infractions.

1. Section 2.3.1 of the Appendix B Environmental Technical Specifications limits "total residual chlorine in the effluent from the collection box . . . " to "A daily average concentration of 0.2 mg/l free available chlorine and a daily maximum concentration of 0.5 mg/l free available chlorine."

Contrary to the above, the 0.5 mg/l limit was exceeded between July 7, 1978 and July 10, 1978.

2. Section 5.1.1 of the Appendix B Environmental Technical Specifications requires in part that the Station Review Board's review responsibility will include results of the Environmental Monitoring Programs prior to their submission in each Environmental Operating Report.

Contrary to the above, the Station Review Board did not review the first Annual Environmental Operating Report for the Davis-Besse Nuclear Power Station Unit 1.

U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report No. 50-346/78-22

Docket No. 50-346

License No. NPF-3

Licensee: Toledo Edison Company
Edison Plaza
300 Madison Avenue
Toledo, OH 43652

Facility name: Davis-Besse Nuclear Power Station, Unit 1

Inspection at: Davis-Besse Site, Oak Harbor, OH

Inspection conducted: August 21-23, 1978

Inspector: *A. G. Januska*
A. G. Januska

9/7/78

Approved by: *T. H. Essig*
T. H. Essig, Chief
Environmental and Special
Projects Section

9/7/78

Inspection Summary

Inspection on August 21-23, 1978 (Report No. 50-346/78-22)

Areas Inspected: Routine, unannounced environmental protection inspection, including evaluation of reportable occurrences 78-017, 78-031, and 78-072-04-T-0; the licensee's program for quality control of analytical measurements; evaluation of the licensee's analytical results of plant effluent samples obtained during a previous inspection; collection of plant effluent samples for future comparative analyses; program management and implementation; review of program results. The inspection involved 23.5 inspector-hours onsite by one NRC inspector.

Results: Of the six areas inspected, no items of noncompliance or deviations were found in four areas; an apparent item of noncompliance (infraction) was found in each of two areas (discharge of chlorine in excess of T/S limits, Paragraph 4d; and failure to review results of Environmental Monitoring Programs, Paragraph 4c).

DETAILS

1. Persons Contacted

B. Beyer, Assistant Station Superintendent
*D. Briden, Chemist and Health Physicist
*W. Green, Administrative Coordinator
*W. Mills, Chemical and Radiation Protection Engineer
*J. Buck, Operations Quality Assurance Supervisor
D. Hitchens, I&C Engineer
*F. Kebker, Senior Chemical and Radiation Tester
D. Eldred, Technical Assistant
*J. Sullivan, TECo Environmental Activities Department
*K. Mauer, TECo Environmental Activities Department

*Denotes those present at exit interview

2. Review of Reportable Occurrences

(Closed) Reportable Occurrences 78-017 and 78-031: Meteorological Tower inoperative and failure to record channel check on Control Room Ventilation Air Intake Chlorine Detectors, respectively. The inspector discussed reported corrective actions and reviewed documentations where available and has no further questions regarding these items.

(Open) Reportable Occurrence 78-072-04-T-0: chlorine discharge in excess of ETS limit. The inspector discussed the reported corrective action. As the corrective action is not complete and this is an apparent item of noncompliance, this item will be reviewed and closed out during a subsequent inspection.

3. General

The inspection consisted of an examination of the licensee's nonradiological environmental monitoring program, including implementation and program results. Environmental occurrence reports were reviewed. The licensee's program for quality control of analytical measurements including chemical (nonradiological) measurements of reactor coolant water quality and results of plant effluent samples collected during a previous inspection were examined. Plant effluent samples were collected for future comparative analyses.

4. Nonradiological Monitoring Program

The following results of the licensee's nonradiological environmental monitoring program for 1977 were examined for compliance with monitoring and reporting:

a. Water Quality Analyses

The inspector reviewed records of water quality analyses and noted that solar radiation measurements had not been made (1) for the three required stations in April and November (2) at station 1 for May through October and (3) at stations 8 and 13 in July and August. In addition, random dissolved oxygen, temperature, and conductivity measurements were missing during the required sampling period. As the contractor did not identify the reason for these missing results, this matter is considered unresolved.

b. Unreported Studies

Plantkton, benthic and fisheries population studies as well as ichthyoplankton were to be received by Toledo Edison in early April and subsequently reported to the Director of the NRC Regional Office as a supplementary report as required by Environmental Technical Specifications 5.4.1.A. To date, only the fisheries population study has been received by Toledo Edison. The inspector discussed the necessity of timely reporting with licensee representatives who, in turn, acknowledged these comments. These sections will be reviewed upon receipt and the results covered in a subsequent inspection.

c. Environmental Monitoring Programs Review

A review of audits of the environmental monitoring program was conducted by the inspector. The Quality Assurance Department has audited a portion of the program. The remainder will be audited by section, although no schedule had been established at the time of the inspection.

The inspector's review also revealed that the Station Review Board had not reviewed the results of the Environmental Monitoring Programs prior to their submission in each Environmental Operating Report. This constitutes an item of noncompliance with Environmental Technical Specification Section 5.1.1.

d. Chemicals

The inspector reviewed records of chlorine, pH and sulphate ion concentrations. Except for one instance of chlorine, all concentrations were within the Technical Specification limits. The licensee reported that between July 7 and July 10, 1978 free available chlorine in excess of 0.5 mg/l was in the collection box effluent from the circulating water blowdown. This constitutes an item of noncompliance with Environmental Technical Specification Section 2.3.1.

5. Licensee Program for Quality Control of Analytical Measurements

The inspector discussed the assignment of responsibility and authority for management control of analytical measurements. Responsibility and authority for control of those measurements rests with the Chemist and Health Physicist. The management control for the program progresses down through supervisors and foremen.

The inspector reviewed records for daily checks of applicable counting equipment and procedures associated with radiological measurements of effluents and nonradiological measurements of reactor coolant water quality.

The licensee's procedures do not contain criteria for accepting measurement result and requiring notification when deficiencies are noted. A licensee representative stated that personnel counting samples are aware of what steps to take if anomalous results or deficiencies are encountered. The inspector reviewed a memo posted in the counting room which addresses steps to be taken if the daily source check is not within the prescribed range. In addition, a source check that was unacceptable and the subsequent actions taken by the individual who ran the check was reviewed and found to be acceptable. The inspector had no further questions regarding this item.

6. Results of Comparative Analyses

Results of comparative analyses performed on effluent samples split at the site in February 1978 are shown on Table 1. The criteria for comparing measurement results are given in Attachment 1. For eleven sample comparisons, the licensee's results yielded ten agreements. The licensee failed to properly quantify gross beta activity in the analysis of liquid waste. No reason for this discrepancy was apparent after a review of both the licensee's and the NRC Reference Laboratory's data.

7. Effluent Sampling

Samples of liquid and gaseous waste were obtained for future comparison.

8. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. An unresolved item disclosed during the inspection is discussed in Paragraph 4a.

9. Exit Interview

The inspector met with the licensee representatives (denoted in Paragraph 1) at the conclusion of this inspection on August 23, 1978. The purpose, scope and findings of the inspection were discussed. In response to certain remarks made by the inspector, the licensee agreed to:

- a. Put a trace on the replacement parts needed to put the recorder and computer alarm point associated with the automatic chlorine analyzer at the beach sample station back into good working order.
- b. Expedite the installation of the replacement parts discussed in Paragraph 9a as soon as they are received.
- c. Obtain documentation from the nonradiological environmental contractor regarding the samples which were missed (Paragraph 4a).

Attachments:

1. Attachment 1, Criteria for
Comparing Analytical Measurements
2. Table 1, Confirmatory Measurements
Program, Davis-Besse

ATTACHMENT 1

CRITERIA FOR COMPARING ANALYTICAL MEASUREMENTS

This attachment provides criteria for comparing results of capability tests and verification measurements. The criteria are based on an empirical relationship which combines prior experience and the accuracy needs of this program.

In these criteria, the judgment limits are variable in relation to the comparison of the NRC Reference Laboratory's value to its associated one sigma uncertainty. As that ratio, referred to in this program as "Resolution", increases, the acceptability of a licensee's measurement should be more selective. Conversely, poorer agreement should be considered acceptable as the resolution decreases. The values in the ratio criteria may be rounded to fewer significant figures to maintain statistical consistency with the number of significant figures reported by the NRC Reference Laboratory, unless such rounding will result in a narrowed category of acceptance. The acceptance category reported will be the narrowest into which the ratio fits for the resolution being used.

<u>RESOLUTION</u>	<u>RATIO = LICENSEE VALUE/NRC REFERENCE VALUE</u>		
	<u>Agreement</u>	<u>Possible Agreement "A"</u>	<u>Possible Agreeable "B"</u>
<3	No Comparison	No Comparison	No Comparison
>3 and <4	0.4 - 2.5	0.3 - 3.0	No Comparison
>4 and <8	0.5 - 2.0	0.4 - 2.5	0.3 - 3.0
>8 and <16	0.6 - 1.67	0.5 - 2.0	0.4 - 2.5
>16 and <51	0.75 - 1.33	0.6 - 1.67	0.5 - 2.0
>51 and <200	0.80 - 1.25	0.75 - 1.33	0.6 - 1.67
>200	0.85 - 1.18	0.80 - 1.25	0.75 - 1.33

"A" criteria are applied to the following analyses:

Gamma spectrometry, where principal gamma energy used for identification is greater than 250 keV.

Tritium analyses of liquid samples.

"B" criteria are applied to the following analyses:

Gamma spectrometry, where principal gamma energy used for identification is less than 250 keV.

Sr-89 and Sr-90 determinations.

Gross beta, where samples are counted on the same date using the same reference nuclide.

TABLE I

U S NUCLEAR REGULATORY COMMISSION
 OFFICE OF INSPECTION AND ENFORCEMENT
 CONFIRMATORY MEASUREMENTS PROGRAM
 FACILITY: DAVIS BESSE
 FOR THE 1 QUARTER OF 1978

SAMPLE	ISOTOPE	-----NRC-----		---LICENSEE---		---NRC:LICENSEE---		
		RESULT	ERROR	RESULT	ERROR	RATIO	RES	T
OFF GAS	XE 133	2.9E-04	1.1E-05	3.7E-04	0.0	1.3E+00	2.6E+01	A
L WASTE	BETA	1.5E-05	1.0E-06	4.2E-05	0.0	2.8E+00	1.5E+01	D
	H 3	5.3E-02	1.0E-04	5.8E-02	0.0	1.1E+00	5.3E+02	A
	I 131	4.9E-06	7.5E-07	5.8E-06	0.0	1.2E+00	6.5E+00	A
	CO 58	9.0E-05	2.6E-06	8.2E-05	0.0	9.1E-01	3.5E+01	A
	MN 54	1.1E-05	3.8E-07	1.0E-05	0.0	9.1E-01	2.9E+01	A
F SPIKED	CO 57	4.09E-03	1.6E-04	6.4E-03	0.0	1.3E+00	3.4E+01	A
	CS 134	1.1E-02	4.0E-04	1.2E-02	0.0	1.1E+00	2.7E+01	A
	CS 137	6.6E-03	3.0E-04	7.9E-03	0.0	1.2E+00	2.2E+01	A
	CO 60	8.1E-03	4.0E-04	9.8E-03	0.0	1.2E+00	2.0E+01	A
C SPIKED	BA 133	8.9E+04	4.8E+03	8.4E+04	0.0	9.4E-01	1.9E+01	A

T TBS1 RESULTS:

A=AGREEMENT

D=DISAGREEMENT

P=POSSIBLE AGREEMENT

N=NO COMPARISON

Central Files



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

SEP 18 1978

University of Notre Dame du Lac
ATTN: Dr. John W. Lucey, Chairman
Radiation Control Committee
Notre Dame, IN 46556

License No. 13-01983-15

Gentlemen:

This refers to the inspection conducted by Mr. S. R. Lasuk of this office on August 22-23, 1978, of activities authorized by NRC Fv-product Materials License No. 13-01983-15 and to the discussion of our findings with you and Messrs. E. Riley and R. Zerr at the conclusion of the inspection.

The inspection was an examination of activities conducted under your license as they relate to radiation safety and to compliance with the Commission's rules and regulations and with the conditions of your license. The inspection consisted of a selective examination of procedures and representative records, observations, and interviews with personnel.

The inspection also included a review of the actions described in your letter dated April 19, 1976, regarding the apparent item of noncompliance found during our March, 1976 inspection and your inventory control system. We have no further questions on this matter.

During this inspection, certain of your activities appeared to be in noncompliance with NRC requirements, as described in the enclosed Appendix A.

This notice is sent to you pursuant to the provisions of Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Section 2.201 requires you to submit to this office within twenty days of your receipt of this notice a written statement or explanation in reply, including for each item of noncompliance: (1) corrective action taken and the results achieved; (2) corrective action to be taken to avoid further noncompliance; and (3) the date when full compliance will be achieved.

7810110263

University of Notre Dame
du Lac

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SEP 18 1978

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

Sincerely,

A. B. Davis, Chief
Fuel Facility and Materials
Safety Branch

Enclosure: Appendix A,
Notice of Violation

cc w/encl:
Central Files
Reproduction Unit NRC 20b
PDR
NSIC

OFFICE	RIII	RIII	RIII			
SURNAME	Lasuk/dec	Pagliaro	Davis			
DATE	9/14/78		9/15			

Appendix A

NOTICE OF VIOLATION

University of Notre Dame du Lac

License No. 13-01983-15

Based on the inspection conducted on August 22-23, 1978, it appears that certain of your activities were in noncompliance with NRC requirements, as noted below. The following item is an infraction.

Condition 19 of your license requires that licensed material be possessed and used in accordance with statements, representations, and procedures contained in certain applications and letters. The application dated August 8, 1975 included a copy of your Radiation Safety Manual.

Contrary to the requirements of this manual (item 2, page 20), on August 23, 1978, food was stored in a radioisotope laboratory (Lab 364, Nieuwland Science Hall).