

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

REGION V

Report No. 50-206/81-36

Docket No. 50-206 Licenses No. DPR-13

Licensee: Southern California Edison Company
2244 Walnut Grove Avenue
Rosemead, California 91770

Facility Name: San Onofre Unit 1

Inspection at: Camp Pendleton, California

Inspection conducted: September 28 - October 2, October 19-23,
November 4-5, 1981, Conference Call October 27, 1981

Inspectors: Emilio M. Garcia 10 Dec 1981
E. M. Garcia, Radiation Specialist Date Signed

G. P. Yuhas December 10, 1981
G. P. Yuhas, Radiation Specialist Date Signed

Approved by: F. A. Wenslawski 10/14/81
F. A. Wenslawski, Chief, Reactor Radiation Protection Section Date Signed

H. E. Book 10/14/81
H. E. Book, Chief, Radiological Safety Branch Date Signed

Summary: Inspection on September 28 - October 2, 19-23, and November 4-5, 1981
(Report No. 50-206/81-36)

Areas Inspected: Routine, unannounced inspection by regional based inspectors of the radioactive waste effluent treatment systems, including review of semiannual operating reports, effluent monitoring instrumentation, radioactive effluents release procedures and practices, and test of control room emergency air treatment system. Tours of the facility and participation in the annual security training also took place. The inspection involved 182 hours onsite by two NRC inspectors.

Results: Of eight areas inspected, no item of noncompliance was identified in four areas. One item of noncompliance was identified in each of three areas; failure to instruct workers, 10 CFR 19.12, Paragraph 2; failure to submit the Semiannual Operating Report as required by Appendix B Technical Specification 5.6.2, Paragraph 5; and failure to prepare written calibration procedures for effluent monitoring as required by Appendix B, Technical Specification 5.5.1, Paragraph 6. Two items of noncompliance were identified in one area; failure to perform a survey of gaseous releases as necessary to comply with 10 CFR 20.106, 10 CFR 20.201(b), and failure to monitor gross release of radioactive gas, Appendix A Technical Specification 4.6 A., Paragraph 4.

DETAILS

1. Persons Contacted

- *R. Dietch, Vice President Nuclear Engineering and Operations
- +*J. G. Haynes, Manager, Nuclear Operations
- +*#H. B. Ray, Station Manager
- +*J. M. Curran, Manager, Quality Assurance
- *W. C. Moody, Manager, Nuclear Licensing
- +*#B. Katz, Station Technical Manager
- +*#K. P. Barr, Station Health Physics Manager
- +*R. N. Santosuosso, Station Maintenance Manager
- +*W. G. Zintl, Station Nuclear Training Manager
- +*M. K. Sullivan, Supervisor, Plant Chemistry
- +*#W. H. Ray, Instrument and Control Supervisor
- +*#F. Briggs, Compliance Engineer
- +*B. Graham, Chemistry Engineer
- +*D. D. Duran, Radiation Protection Engineer
- +*J. P. Albers, Radiation Protection Engineer
- #W. Frick, Supervisor, Plant Chemistry
- #P. Croy, Manager Compliance and Configuration Control

+ Indicates those individuals attending the preliminary exit interview on October 2, 1981.

* Indicates those individuals attending the exit interview on October 23, 1981.

Indicates those individuals attending the post exit interview on November 5, 1981.

In addition to the individuals noted above the inspector met with and interviewed other members of the licensee's staff.

2. Instruction to Workers

At the time of the September 28, 1981 entrance interview arrangements were made for the inspectors to participate in the "blue badge" security indoctrination. Successful completion of this class grants the individual unescorted access to the restricted area at Unit 1 as defined by San Onofre Nuclear Generating Station Radiation Protection Procedure S-VII-1.18, "Control of Radiation Exposure", Revision 4, dated April 18, 1979 and the right to act as escort in this restricted area. Blue badged individuals do not have unescorted access to radiation areas.

10 CFR 19.12, "Instruction To Workers" states in part, that all individuals working in or frequenting any portion of a restricted area shall be instructed in the appropriate response to warnings made in the event of any unusual occurrence, or malfunction that may involve exposure to radiation or radioactive material. The "blue badge" class the inspectors and twenty-one other individuals attended on September 29, 1981 did not include this instruction. On September 30, 1981 the inspector, accompanied by a licensee representative, interviewed a blue badged individual (Badge No. 307) working in the restricted area near Unit 1 containment and responsible for escorting an untrained worker. The blue badged worker did not know what the signal was for site evacuation and what he should do in the event that a restricted area evacuation was required. He stated that although he had completed the blue badge training he had not been trained in the signal or the proper response.

The licensee's representative described to the blue badged worker the site evacuation signal and the appropriate response.

Failure to instruct workers in the appropriate response to warnings represents noncompliance with 10 CFR 19.12 (50-206/81-36-01).

3. Licensee Action on Previous Inspection Findings

(Closed) (50-206/81-23-01) Unresolved item involving localized contamination of a small area of beach adjoining the tsunami wall. The licensee initially reported the discovery of this condition by telephone on May 11, 1981. A special inspection was conducted June 1-3, 1981 and documented in Inspection Report No. 50-206/81-23. On July 2, 1981 the licensee submitted a written report pursuant to Section 5.6.3(a) of the Environmental Technical Specifications. On July 16, 1981 the licensee submitted a request pursuant to 10 CFR 20.302 regarding final deposition of low level residual contamination remaining subterraneous to the active beach. In a response dated September 24, 1981 NRC concluded that the low levels of contamination remaining in the bottom of the excavation do not pose a significant hazard to the public health and safety and, therefore agreed that back filling is acceptable. The licensee's final report dated October 16, 1981 adequately addresses the cause, corrective actions, and public health and safety impact of this release.

The inspector had no further questions regarding this matter.

(OPEN) In a response dated September 30, 1980 to observations made during the Health Physics Appraisal and documented in NRC Inspection Report No. 50-206/80-17 the licensee stated that:

"The procedures governing maintenance, calibration, changes of radioactive effluent monitors will be revised by April, 1981 to include a sharing of responsibilities between the Instrumentation and Radiation Protection Department, control of changes involving system responses and efficiency and to include proper reference source details. A retrospective analysis of primary calibration and instrument maintenance check data to obtain a correlation between the external calibration check source and the primary will be completed by April, 1981."

By a letter dated May 11, 1981 the licensee advised NRC that procedure S-II-1.7 had been revised and implemented on May 8, 1981 and that the retrospective analysis would be completed by May 29, 1981.

Review of SOI-II-1.7, "Unit 1 Operational Radiation Monitoring System Calibration (Six Month Interval)", Revision 4 dated May 8, 1981 indicated that replacement of detectors, nonconforming instrumentation, and check source decay correction had been addressed in the revision.

The licensee representative stated that inclusion of a review signature by the Supervisor Plant Chemistry in SOI-II-1.7 was meant to respond to the need of designation of responsibility between Instrumentation and Radiation Protection Department. The inspector noted that with the issuance of Amendment 54 to Provisional Operating License No. DPR-13 on May 7, 1981, the Technical Specifications were revised to include a separation of the Chemistry and Health Physics functions. Station Order SO123-C-1, "Organization and Responsibilities of the Chemistry Section" Revision 0, dated July 22, 1981 states in Section 6.1.2.2 that the Supervisor of Plant Chemistry is responsible to assign an appropriately qualified engineer responsible for liquid and gaseous releases and in 6.1.2.4 that the Supervisor of Plant Chemistry is responsible for assuring that necessary records are maintained and reports generated. According to Section 6.3 the "Engineer Responsible for Liquid and Gaseous Releases" has the following responsibilities:

- "Responsible for monitoring all liquid and gaseous releases to the environment to insure compliance with NRC and state regulations.
- Responsible for maintenance of all records and storage of all documents for DA and NRC audits.

- Responsible for the maintenance, testing and calibration of all instrumentation used in radioactive releases."

The inspector interviewed the Engineer Responsible for liquid and gaseous releases. The individual met the qualification requirements specified by S0123-C-1. However, the individual assumed the position in March 1981 with minimal effluent experience, received no specialized training and was not familiar with the responsibilities described above. The individual stated that he is not involved in effluent monitoring calibration, monitoring instrument operation, or familiar with Technical Specification requirements involving liquid and gaseous releases and does not trend or graphically display effluent release data.

The Supervisor of Plant Chemistry stated that he had not intended to require that the engineer responsible for liquid and gaseous releases to become involved in effluent monitoring equipment.

The retrospective analysis to be performed on the Operational Radiation Monitoring System ORMS channels R1211 (Containment Sphere particulate), R1212 (Containment Sphere Gaseous), R1214 (Stack Monitor), R1218 (Liquid Radwaste Monitor) was documented in a June 12, 1981 Memorandum for File, signed by the Supervisor, Instrument and Control.

The inspector reviewed this memorandum and discussed it with the Supervisor, Instrument and Control. The inspector learned from this discussion that data from the most recent isotopic calibrations for: R-1211, July 25, 1974; R-1212, March 16, 1973; R-1214, March 16, 1973; and R-1218, October 18, 1973 although referenced in the memorandum had been misplaced and was not actually used in the analysis. In addition, of the four monitors, only R-1211 had data before and after the isotopic calibration to support the channel response to the check source. Data indicated for R-1218 was out of specification at the time it was performed on October 29, 1973 and was incorrectly reported in the memorandum. According to the Supervisor, Instrument and Control, neither the Radiation Protection Department nor the Engineer Responsible for liquid and gaseous releases participated in this retrospective analysis to establish the credibility of the effluent monitor six month calibration pursuant to procedure S01-II-1.7

Based on these observations the inspector concluded that, although no item of noncompliance was identified with the licensee's response, it appears that the weaknesses identified by the Health Physics Appraisal have not been corrected. This matter will be reviewed in a subsequent inspection (50-206/81-36-02).

4. Radioactive Effluent Releases

A. Airborne Radioactive Effluents

- (1) The objective of Technical Specification Appendix A, Section 4.6, "Radioactive Gaseous Waste Release" is, "To verify discharge of radioactive gaseous waste to the atmosphere will not result in ground level radioactivity concentrations outside the plant boundaries in excess of limits established in 10 CFR 20."

In-office review of the formula provided in paragraph A of the Technical Specification indicated that it could not be applied to calculate release rate without interpretation. The inspector requested the licensee to explain how they apply Technical Specification (TS) 4.6 A. to determine maximum permissible release rate. The Supervisor, Plant Chemistry stated that they have not been able to understand or utilize the formula as provided. The licensee representative stated that they have evaluated their compliance directly against 10 CFR 20.106 by utilizing a dilution factor derived from the $1.8 \text{ E } 5 \text{ m}^3$ per second term in the TS 4.6 A. formula.

The inspector brought this matter to the attention of the Radiological Assessment and Effluent Treatment branches of the Office of Nuclear Reactor Regulation (NRR). NRR prepared interim guidance regarding this matter which was presented to the licensee by the inspector. NRR will develop a more refined interim formula which will be transmitted to the licensee for use until the standardize radiological effluent Technical Specifications are issued.

The inspector reviewed selected records including radioactive release permits, ORMS Multipoint Recorder RLR 1200 print-outs, and sample analysis data for the period January 1980 through September 1981 to determine compliance with 10 CFR 20.106, "Radioactivity in effluents to unrestricted areas".

Based on the operating history (less than five effective full power months of reactor operation) during the period of review, it does not appear that the licensee exceeded the limits specified in 10 CFR 20.106. However, 10 CFR 20.201, "Surveys" states in subparagraph (b), "Each licensee shall make or cause to be made such surveys as may be necessary for him to comply with the regulations in this part." (i.e. part 20). 10 CFR 20.201(a) states: "(a) As used in the regulations in this part, 'survey' means an evaluation of the radiation hazards incident to the production, use, release,

disposal, or presence of radioactive materials or other sources or radiation under a specific set of conditions. When appropriate, such evaluation includes a physical survey of the location of materials and equipment, and measurements of levels of radiation or concentrations of radioactive material present."

From discussions with licensee representatives the inspector determined that during reactor operations the licensee does not perform a survey or evaluation of radioactive noble gaseous activity released from the Auxiliary Building via the plant stack. Although R-1214 may measure and record this release, the Engineer Responsible for Liquid and Gaseous Releases during the first half of 1981 and his predecessor responsible for this area during 1980 stated that the activity released via this pathway due to normal system leakage (non batch processes) has not been accounted for in determining compliance with TS 4.6 A. and 10 CFR 20.106 or reported as required by TS Appendix B Section 5.6.2. The inspector notes that FSAR Table 8.3-12 predicts this pathway may result in a release of about 650 Ci per year.

Failure to perform a survey or evaluation of the noble gas activity released via this pathway in determining compliance with 10 CFR 20.106 represents noncompliance with 10 CFR 20.201(b) (50-206/81-36-03).

The inspector selected for review five discharges of the Waste Gas Decay Tanks made thru the cryogenic system (CVI). Summarized in the table below is information from the Gas Radioactive Release Permits, and ORMS RLR 1200 recorder charts.

Date	Gas Discharge Permit No.	CVI Release Act. uCi/cc	Release Flow Rate CFM	R-1214 BKG CPM	R-1214 Release CPM
3-7-80	2720	1.1E-5	3.6	3000	5000
3-7-80	2722	2.2E-5	3.9	2500	4500
4-3-80	2748	2.47E-3	2.07	3000	No increase
4-10-80	2755	LLD*	2.58	3000	No increase
4-10-80	2756	2.26E-5	3.01	1500	No increase

*LLD Lower Limit of Detection, (value not recorded).

The licensee calculated and reported the activity released based on the CVI composite sample activity noted above. Typically, and as indicated by Permit Nos. 2748, 2755 and 2756 no increase in response of the stack gas monitor R-1214 is observed during releases made via the CVI system. However, during the March 7, 1980 releases, Permit Nos. 2720 and 2722 clear indications of a 2000 cpm increase in R-1214 response were recorded by RLR 1200. Summarized in the table below is a comparison of activity released as reported by the licensee and activity released as calculated by the inspector based on R-1214 response and licensee calibration factors.

<u>Release Permit No.</u>	<u>Licensee Reported Activity Released, Ci</u>	<u>Inspector Calculated Activity Release Ci</u>
2720	2.4 E-4	2.1 E0
2722	4.9 E-4	2.4 E0

When brought to the licensee's attention they stated that no survey or evaluation had been made to resolve the apparent inconsistency between the activity reported as released and the stack gas monitor R-1214 instrument response.

The inspector noted that no licensee administrative guidance exists to insure the response of ORMS system data is compared to actual release information.

Failure to perform an evaluation of the actual activity released from the Waste Gas Decay Tanks via the CVI system on March 7, 1981 as necessary to determine compliance with 10 CFR 20.106 represents noncompliance with 10 CFR 20.201(b) (50-206/81-36-04).

On March 10, 1980 at 5:38 AM the licensee initiated a purge of the containment atmosphere to the plant stack according to Gas Radioactive Release Permit No. 2757. Review of the ORMS RLR 1200 chart for this date indicates the initiation of the purge caused R-1214 to increase from 3000 cpm to a maximum of 18,000 cpm at 6:00 AM. By about 9:20 AM the chart indicates most of the activity had been discharged in that the R-1214 reading decreased to 4000 cpm. According to the Permit No. 2757 a gas sample was collected at the stack at 12:00 noon and analyzed at 2:20 PM. This gross gaseous activity of 1.2 E-3 uCi/cc was used to calculate a discharge of 257 Ci between 5:38 AM and 12:00 noon.

Based on review of the RLR 1200 chart the inspector noted that at 12:00 noon R-1214 indicated 1000 cpm greater than background. Using the licensee calibration data this would correspond to a gaseous activity of about 1.5 E-5 uCi/cc in the stack. This is about a factor of 80 times less than the stack activity determined by sampling at 12:00 noon. The activity released verses R-1214 response is inconsistent.

The inspector presented the RLR 1200 chart and Gas Radioactive Release Permit No. 2757 to licensee representatives and asked whether a survey or evaluation of the anomalous release data had been performed. The licensee representatives were unaware of this inconsistency between sample data and release monitor response and therefore had not performed a survey or evaluation of the release to resolve the apparent discrepancy.

Failure to perform a survey or evaluation of the activity released during the containment purge on March 10, 1981 as necessary to determine compliance with 10 CFR 20.106 and Technical Specification 4.6 A. represents noncompliance with 10 CFR 20.201(b) (50-206/81-36-05).

In the three examples of noncompliance noted above, the licensee failed to consider or evaluate the response of the ORMS effluent monitors when determining the release of radioactive gaseous effluents. The inspector did not identify any procedural guidance, or training of involved personnel, which would cause them to observe, compare, or evaluate inconsistencies between predicted releases and actual effluent monitor responses.

(2) Review of Licensee Event

On July 31, 1981 the licensee submitted a report pursuant to Section 5.6.3 of Technical Specifications Appendix B which described the July 17, 1981 explosion of the north Waste Gas Decay Tank (WGD1). The inspector reviewed this report, the July 22, 1981 and July 23, 1981 licensee technical basis memoranda, Surveillance Instruction S01-12.2-2, "ORMS Functional Test" data sheets and discussed the event with several licensee representatives.

The licensee calculated the activity released during this event by assuming the contents of the WGD were released to the lower operating area of the Reactor Auxiliary Building then discharged via the ventilation system to the plant stack.

On July 17, 1981 at 2:45 PM, the licensee had sampled the north WGD in anticipation of a routine release later in the day. The results of this sample as recorded on Gas Radioactive Release Permit No. 3293 indicate a total noble gas inventory of 8.8 Ci. The major isotope was ^{133}Xe with 7.9 Ci present.

The Engineer Responsible for Liquid and Gaseous Releases calculated the concentration at the plant boundary (800 meters) by interpretation of the RLR 1200 chart recording of R-1214 response. R-1214 responded to the explosion by increasing from 1200 cpm to about 30000 cpm (licensee extrapolation) in less than three minutes followed by an 18 minute purge decay returning to 1200 cpm. Using the area under this curve the licensee calculated a peak release concentration of $3.5 \text{ E-}4 \text{ uCi/cc}$ of ^{133}Xe , then applied a $1\text{E}4$ dilution factor to arrive at a concentration of $3.5\text{E-}8 \text{ uCi/cc}$ of ^{133}Xe at the plant boundary. 10 CFR 20.106 permits a licensee to release ^{133}Xe on an annual basis such that the concentration in the unrestricted area is less than $3\text{E-}7 \text{ uCi/cc}$. Based on this calculation the licensee reported that the release was a factor of ten below the 10 CFR 20 limit.

The licensee also calculated the total release of ^{133}Xe by integrating the area under the curve and applying the R-1214 calibration data. The licensee recorded a total ^{133}Xe release of 1.86 Ci.

The inspector asked the licensee how they resolved the inconsistency in sample data which indicated a noble gas inventory of 8.8 Ci and their R-1214 response which concluded 1.86 Ci (all assumed to be ^{133}Xe) were released. The Engineer Responsible for Liquid and Gaseous Releases stated that he was aware of this inconsistency and had not determined the cause.

Technical Specification 4.6 C. states: "All radioactive wastes discharged through the stack shall be monitored continuously for gross activity.", and 4.6 E. states: "The stack gas and particulate monitors shall be calibrated at a minimum frequency of once every six months, and normal response of each monitor shall be tested weekly."

Surveillance Instruction S01-12.2-2, "Operational Radiation Monitoring System Test" describes the weekly functional test referenced in TS 4.6 E.

The inspector reviewed the surveillance records collected pursuant to S01-12.2-2 from May to October 1981. This data indicated a pronounced deterioration of R-1214 response beginning

in mid June 1981. On July 3, 1981 the operator noted that R-1214 did not meet the minimum acceptance criteria and issued a work order MO(S07278). An instrument technician investigated the problem on July 6, 1981 and closed MO(S07278) based on his re-performing S01-12.2-2. On July 17, 1981 at 10:15 AM, R-1214 again failed to meet the response criterion of S01-12.2-2 and the operators issued MO(S05878) to calibrate the instrument. Calibration was not initiated pursuant to S01-II-1.7 until August 14, 1981. At that time the instrument was found to be out of calibration, however, not until late in August did instrument technicians determine that two of the four Gieger-Mueller tubes in R-1214 had fallen off. The tubes were replaced on August 27, 1981 and R-1214 satisfactorily met the criterion of S01-II-1.7.

When R-1214 is not in service, R-1212 containment gas monitor can be shifted to the plant stack. The inspector questioned Control Room operations personnel and reviewed the "Watch Engineer's Log" and "Control Console Log" for July and August 1981. There is no entry to indicate that R-1212 was shifted to the stack; nor did any operators interviewed recall shifting R-1212 to the stack.

During the period July 3 through August 27, 1981 R-1214 was not responding normally as required by S01-12.2-2 and S01-II-1.7 and therefore should have been declared inoperable and either no releases made, or R-1212 shifted to the plant stack during periods of release. However, in addition to the release caused by the WGDt explosion the following routine batch releases were made from the WGDt's as shown below:

<u>Date</u>	<u>Gas Radioactive Release Permit No.</u>
7-20-81	3298
8-10-81	3329
8-14-81	3340
8-15-81	3341
8-16-81	3342
8-16-81	3343

Failure to monitor radioactive waste discharge thru the stack continuously for gross gaseous activity during July and August 1981 represents noncompliance with Technical Specification 4.6 C. (50-206/81-36/06).

The apparent inconsistency observed by the licensee in their evaluation of the WGDt explosion release is likely related to the deteriorated condition of R-1214 at the time of the release.

The inspector recalculated the percent of Technical Specification Limit 4.6 A. using the following technique provided by NRR.

Averaged over a year, release rates of airborne radioactive effluents in curies/sec shall not result in a value exceeding that calculated from the following formula:

$$Q_t \leq 1.8 \times 10^5 \frac{\text{m}^3}{\text{sec}} \sum_{x=1}^n \frac{1}{\frac{C_{sx}}{C_{st}} \text{MPC}_x}$$

Where C_{sx} is the concentration of any radionuclide in uCi/ml at the release point, and $C_{st} = \sum_{x=1}^n C_{sx}$.

MPC_x as defined above shall be that stated in Column 1, Table II of 10 CFR 20. The maximum release rate over any one hour shall not exceed 10 times the yearly averaged limit as stated above.

The mix of nuclides from the sample of the north WGD taken at 2:45 PM on July 17, 1981 were used in the calculation.

Since the entire 8.8 Ci released may be averaged over one hour this release was actually about 0.5 % of the allowed release limit.

(3) Analysis for Specific Radionuclides

Technical Specification 4.6 implies that analyses for specific radionuclides must be performed. Radiation Protection procedure S-VII-1.33, "GAS RADIOACTIVE WASTE RELEASES," requires that gaseous, particulate and iodine samples of batch releases and particulate and iodine of all releases be analysed by gamma spectrum. The particulate samples are sent to an independent analyst for Sr-90 analysis. Review of Release Permits and Semiannual reports indicate that the analyses are being conducted.

B. Liquid Radioactive Effluents Releases

(1) Technical Specification 4.5 A. states:

"Averaged over a year, the release rates of liquid waste shall not result in concentrations in the circulating water discharge in excess of Part 20 limits for unrestricted areas, except that the maximum release rate over the period of one hour shall not exceed 10 times the yearly averaged limit."

Review of the operating history, Semiannual reports and selected Release Permits for the years 1980 and 1981 indicate that the license did not exceed the limits set in the Technical Specification

(2) Monitoring of Specified Release Points.

Technical Specification 4.5 D. states: "D. All radioactive wastes entering the Circulating Water System shall be monitored for isotopic or gross activity during discharge. Such monitoring may be accomplished by either of the following methods:

- "1. Continuous monitoring with the in-stream liquid waste monitor channel; or, if the liquid waste monitor channel is inoperable,
- "2. Analyses of a minimum of three samples of effluent stream taken approximately towards the beginning, midpoint, and end of each release period."

Monitor R-1218 is the in line liquid monitor. According to the Instrument and Control Foreman for Unit 1, R-1218 has been out of service since October 1980, due to contamination of the detector and tube replacement. The licensee has been using provision D.2 of the Technical Specification since that date.

The inspector discussed with licensee management representatives the inappropriateness of having the liquid effluent monitor out of service for over one year.

(3) Analysis for Specific Radionuclides.

As it was the case with gaseous releases the relevant Technical Specification, 4.5, implies that analyses for specific radionuclides must be performed. Radiation Protection procedures SOI-VII-1.15 Rev. 7, "LIQUID RADIOACTIVE WASTE RELEASES", requires that samples of liquid releases be counted on the Camberra/Geli detector system. Tritium is analyzed by liquid scintillation, and pure beta emitters are submitted for analysis to an independent laboratory. Samples are also analyzed for alpha emitters both by the licensee and by the independent laboratory. Review of Release Permits and Semiannual release reports indicate that the analyses are being conducted.

C. Compliance with 40 CFR 190, "Environmental Radiation Protection Standard for Nuclear Power Operations."

In a November 1, 1979 letter from Mr. K. P. Baskin, Manager Generation Engineering to Mr. D. L. Ziemann, Chief ORB2,

Division of Operating Reactors, Southern California Edison Company (SCE) committed to perform on a semiannual basis an evaluation of the radioactive effluents released from San Onofre Nuclear Generating Station to ensure that they are less than or equivalent to previous releases. SCE also stated that if the releases exceeded the Appendix I guidelines a report would be submitted.

The inspector attempted to review the results of this semiannual evaluation, however, no record of said review has been made. Neither the Supervisor of Plant Chemistry, nor the Engineer Responsible for Liquid and Gaseous Releases acknowledged responsibility for performance of this commitment. After some discussion the Supervisor of Radioactive Waste stated that he had performed the evaluation for 1980. Since no written record of the evaluation was made the inspector discussed the review with the performer. The inspector concurred that the liquid and gaseous releases for 1980 did not exceed Appendix I guidelines. However, the evaluation did not address direct radiation.

The inspector discussed this aspect of 40 CFR 190 with several licensee representatives and provided the licensee guidance from NRR on this issue.

The inspector brought to licensee management's attention their responsibility to comply with 40 CFR 190 in view of the apparent informality of previous reviews and the current lack of assigned responsibility to insure their commitment for the first half of 1981 is fulfilled.

The apparent items of noncompliance identified in this paragraph are noted in the subparagraph in which they are discussed.

5. Records and Reports of Radioactive Effluents

A. Semiannual Operating Reports.

(1) Submission of Semiannual Operation Report No. 28.

During the September 28, 1981 entrance interview the inspector informed the licensee that the Commission had not received a report of the radioactive effluents released and solid waste shipments made from January 1 through June 30, 1981. On September 29, 1981 a licensee representative informed the inspector that in fact a report had not yet been submitted.

Failure to submit a semiannual effluents report within 60 days of July 1, 1981 constitutes noncompliance with Technical Specification Appendix B Paragraph 5.6.2 (50-206/81-36-07).

On October 2 the licensee informed the inspector that the report would be mailed as soon as possible. Region V received the report on October 19.

(2) Review of Reports

Specification 5.6.2 requires that the report data be summarized on a monthly basis following the format of USAEC Regulatory Guide 1.21. The Technical Specification goes on to state the data that is to be included.

The inspector reviewed Semiannual Operating Report numbers 27 and 28. The tables in these reports include the data from January 1, 1980 to June 30, 1981. The inspectors also reviewed selected gaseous and liquid release permits in conjunction with the reports. See Paragraph 7 below.

Both reports reviewed do not completely follow the format of Regulatory Guide 1.21 in that an estimate of the errors in measurements are not included (Regulatory Position 11.a) and the expressions of results of measurements where the radioactivity is less than the maximum sensitivity, the actual value of the maximum sensitivity is not reported (Regulatory Position 12.c).

The inspector calculated the percent of Technical Specification limits for the airborne effluents in report number 27 in light of the interpretation provided by NRR (see Paragraph 4.A) and found good agreement with the values reported by the licensee.

Review of Report Number 28 identified a number of inconsistencies or errors.

- a. The value reported for gross gaseous effluents under A.1.a.1 differs with the value reported on Table 1 by three orders of magnitude.
- b. The gaseous maximum release rate noted on A.1.a.2 differs with the value reported on Table 1 January-June total, and both of these values are inconsistent with the value reported for April.
- c. The value reported for the percent of the Technical Specification limit for Noble Gases both on A.1.a.4 and the total on Table I are inconsistent with those reported for the month of June and all of these numbers are at least a factor of five lower than the value calculated by the inspector.

- d. The total number of curies of halogens reported for the six month period is inconsistent with the value reported for the month of June and that number is inconsistent with the values reported for the individual isotopes.
- e. The total particulate airborne released noted under A.1.c.1 is approximately an order of magnitude lower than the values reported on Table I.
- f. The average concentration of radioactive liquid effluents reported under A.2.a appears to be inconsistent with the dilution volumes reported on Table II.
- g. Under A.2.b a value for the maximum concentration of gross radioactivity release in liquid effluents appears to be in gross inconsistency with the values reported on Table II.
- h. The number of curies of gross alpha emitters released reported under A.2.c is inconsistent with the values reported on the monthly summaries of Table II.
- i. There appears to be a typographical error in the number of curies of solid waste shipped reported under B.2 when compared with the value on Table III.

The inspector advised the licensee of the need to carefully review and submit corrections to Operating Report #28.

B. Records Retention

Technical Specification 6.10.2d requires that the licensee retain for the duration of the Facility Operation License records of gaseous and liquid radioactive material released to the environs. The licensee had available for inspector review all the gaseous and liquid release permits that the inspector requested. Among these were the Gaseous Radioactive Release Permits numbers 2641 to 2746 for the period of January 3, through March 31, 1980, numbers 3266 to 3275 for the period June 18 to June 25, 1981, and 3932 to 3344 for the period July 19 to August 19, 1981; Liquid Radioactive

Release Permits numbers 1035 to 1065 for the period of January 1 to June 30, 1981; and strip charts for Operational Radiation Monitoring System Multipoint Recorder RLR-1200 for the months of March and April 1980 and September 1981.

The apparent item of noncompliance identified in this paragraph is noted in the subparagraph in which it is discussed.

6. Effluent Control Instrumentation

Technical Specification, Appendix A, Sections 4.5 and 4.6 E. state that the stack gas, particulate and liquid waste monitor and flow rate meter are to be calibrated at least once every six months and the response of each monitor is to be tested weekly. The Technical Specifications do not describe what constitutes an adequate calibration or response test for effluent monitors. Section 2.3, "Radioactive Discharge" of Appendix B references Appendix A as containing the limits and conditions for controlling the release of radioactive effluents. In addition, Section 5.5 of Appendix B states in part: "Written procedures, including applicable check lists and instructions, shall be prepared and followed for the activities involved in carrying out these environmental technical specifications. Procedures shall include sampling, data recording and storage, instrument calibration, measurements and analyses, testing frequency of any alarms and actions to be taken when limits are approached or exceeded."

This specification does not commit the licensee to a particular industry standard regarding adequacy of calibration technique.

Of the effluent monitors required, the inspectors selected R-1214 stack gas monitor for detail review.

R-1214 is a mid 1960s vintage Tracer Lab System Model MD-12B(V2). The system used four Amperex 912NB3 Gieger-Mueller (GM) tubes connected in parallel attached to a mounting bar and installed inside the stack. Output of the GM tubes is measured by system electronics which feeds a dual range (1E4, 1E6) logarithmic count rate meter and chart recorder, RLR 1200. A variable high level alarm when actuated will close the gas release header solenoid valve SV-99.

Section 6.6 of S01-II-1.7 details the six month calibration of R-1214. This calibration consists of a pulse check by line frequency and exposing the detectors to the 10 mCi 137 Cs source installed at a location outside the stack. If the indicated count rate is within 20% of the value established by the retrospective analysis (discussed in Paragraph 3) the system is considered in calibration. Since the installed source only produces a single point check, reading a nominal 30,000 cpm, and the alarm/trip point is set at 80,000 cpm above background, the trip point must be lowered to 30,000 cpm to test the systems ability to close SV-99.

Section 1.5 of S01-12.2-2 details the weekly response test for R-1214. This test is essentially the same as that described by S01-II-1.7.

The inspector reviewed surveillance records which indicate that these procedures were performed at the required frequency from January through October 1981.

Based on review of the retrospective analysis discussed in Paragraph 3 and the significant anomalies between R-1214 response and sample data, as discussed in Paragraph 4, the inspector proceeded with a more comprehensive review of R-1214. The findings of this review are noted below:

- A. Review of a May 1964 Tracer Lab/West, Div of LFE Inc. report, "RM System Calibration Data and Monitor Response Charts" indicates that R-1212 and R-1214 were calibrated using only 85 Kr gas. Other isotopic efficiencies for; 19 O, 41 Ar, 131 I, 82 Br and 133 Xe were calculated using beta transmission factors. Review of Appendix III calculation sheet indicates a discrepancy between the fraction transmission used for 133 Xe (0.15) and an attached graph which indicates a transmission fraction of about 0.05. The graph developed from Price, W. J. Nuclear Radiation Detection page 128 appears correct. Use of 0.15 rather than 0.05 introduces at least a factor of 3 error in a nonconservative direction in the Tracer Lab calibration curves used by the licensee.

The inspector communicated with two other users of Amperex 912NB3 GM tubes who have actually performed calibrations using both 85 Kr and 133 Xe gas. These independent groups reported that the Amperex 912NB3, 466 stainless steel, 30-40 mg/cm² neon-halogen GM tubes under responded to 133 Xe by a factor of between one and two orders of magnitude as compared to 85 Kr.

- B. Review of a SCE Memorandum dated April 14, 1972 indicates a test was performed comparing the 133 Xe activity released during a WGD discharge (considering stack dilution) to the predicted response of R-1214, found that R-1214 under responded by 19.3% compared to the Tracer Lab value. On December 6, 1972 the licensee injected 85 Kr gas into the stack and found that R-1214 over responded by 30% compared to the Tracer Lab curve. In a February 15, 1973 Memorandum SCE concluded "Channel 1214-Continue the use of the existing manufacturer's curve".
- C. Radiation Protection Procedure S-VII-1.32 "Verifying the Calibration using Source Standards Radiation Monitor Sample Channels 1211, 1212, 1214, and 1218", Revision 1, dated November 19, 1975 has apparently never been performed for R-1214.

- D. At some time in the past the licensee replaced Amperex 912NB3 tubes with TGM-N107 GM tubes. These tubes are built to the same specifications as the Amperex 912NB3 tube according to the sales literature. The inspector noted that these tubes are operated at 1100 volts by the licensee. The licensee does not run a plateau on these tubes prior to their use in R-1214. The manufacturer recommends the tubes be operated at 900 volts.

The licensee has not conducted tests to demonstrate how the N107 tubes respond to isotopes being released.

In a telephone discussion between the inspector, Instrument and Control Foreman, and the TGM Manager of Sales held on October 2, 1981 it was learned that TGM has not developed energy response curves for the N107.

The licensee representative was not in a position to state the significance of tube replacement on calibration.

- E. The GM tubes are connected in parallel such that adjustment of high voltage may have a disproportionate effect on one tube more than another.
- F. The geometry of the 10 mCi ¹³⁷Cs source compared to detector position is such that failure of an end location tube may not cause the monitor to fall below the acceptance criterion of S01-12.2-2. The licensee representative stated that tubes have fallen off in the past.
- G. The inspector asked licensee representatives if R-1214 will saturate on a high radiation signal and fail down scale.

The licensee was unable to answer the question except to say that the technical manual did not address this issue. The inspector stated that operational experience with Tracer Lab Models MD-12C and MD5B indicated saturation on high signal resulting in down scale failure.

- H. On an October 1, 1981 tour of the Control Room the inspector noted that the ORMS RLR 1200 chart indication for R-1214 was inconsistent with the monitor reading. The Control Room Operator stated that RLR 1200 was in service. From discussions with Instrument and Control Technicians, review of maintenance orders and previous chart anomalies the inspector expressed concern with the veracity of this recorder output as a record of effluent releases.

The inspector stated to licensee representatives that calibration of R-1214 is severely in question and that the technique used to meet the TS calibration requirement described by SOI-II-1.7 is not adequate.

The inspector provided written guidance supplied by NRR to the licensee regarding calibration of effluent monitors.

Incidental to review of R-1214 calibration the inspector observed that the intake filter for stack dilution fan A-21 was damaged and severely clogged with dirt. The inspector requested data which would indicate stack flow under various fan configurations. The licensee representative stated that although some differential flow measurements had been made across A-22 and A-24 fan intake filters no information was available to indicate actual stack flow rate. The licensee uses the nominal 20,000 CFM per fan name-plate flow.

During tours of the stack area the inspector noted an accumulation of foreign material in the stack particulate and iodine flowmeters. These are identified as R-1219, 1220, 1221. These flowmeters are used in determining particulate and iodine activity released from the stack. Air flowmeters used on R-1211, 1212 and 1215 appeared to be in a similar condition. R-1212 on a high signal is required to close several containment vent and purge valves and ventilation dampers. The inspector also noted that there was no indication that the stack dilution fan interlock differential pressure sensors DPS 17 and 18 which trip SV-99 had been tested or calibrated, or that the waste gas discharge flow indicator FT-11 had been calibrated.

The Instrument and Control Supervisor acknowledged that no procedures had been developed to insure periodic calibration of these flow measuring devices and differential pressure cells. To his knowledge the devices had never been calibrated since installation.

Failure to prepare written procedures to calibrate flow measuring devices used to comply with environmental technical specifications represents noncompliance with Technical Specification, Appendix B, paragraph 5.5.1 (50-206/81-36-08).

7. Procedures and Practices for Effluents Releases

The inspector reviewed the following Radiation Protection Procedures:

<u>PROCEDURE #</u>	<u>REV.</u>	<u>DATE</u>	<u>TITLE</u>
S-VII-1.12	2	FEB. 21, 79	PROCEDURE FOR MANUAL CALCULATION RELEASE PERMITS
S-VII-1.33	2	MAR. 27, 79	GAS RADIOACTIVE WASTE RELEASES
S01-VII-1.15	7	DEC. 12, 80	LIQUID RADIOACTIVE WASTE RELEASES and Operating Instructions:
S01-5-1	0	MAR. 16, 81	RADWASTE GAS SYSTEM
S01-5-2	0	MAR. 16, 81	CRYOGENIC WASTE GAS TREATMENT SYSTEM
S01-5-3	0	APR. 24, 81	LIQUID RADIOACTIVE WASTE SYSTEM OPERATIONS

The inspector also reviewed in detail ten Gaseous Radioactive Release Permits numbers 3266 to 3275 and ten Liquid Radioactive Release Permits numbers 1035, 1039, 1042, 1044, 1047, 1050, 1053, 1056, 1059, and 1062.

Based on the procedures reviewed the inspector noted:

- A. Neither procedure S-VII-1.33 nor instruction S01-5-1 clearly indicate what items on the Gas Release Permit constitute conditions that must be met for a release to take place. For example the Stack Fan Rate Dilution Factor value noted on the permit is viewed by the Chemistry Foreman and his staff as a condition for release. A Watch Engineer interviewed did not understand that notation to be a condition for release.
- B. Instruction S01-5-1 does not clearly state that the bypass valve on flow gage FT-11 is to remain closed during Waste Gas Decay Tanks releases. The Instruction does not include a valve line up check list. Releases have been made with the bypass valve open, see Inspection Report No. 50-205/81-31 Paragraph 6.
- C. S01-5-3 does not clearly state that permits must be fully and accurately completed. Of the ten Liquid Release Permits reviewed, eight were incomplete and/or had errors. According to the Responsible Engineer the incorrect value for curies of alpha emitters reported on Permit 1039 lead to an incorrect value being reported on Semiannual Operating Report number 28.

- D. Procedures S01-VII-1.15 section 4.4 and S01-5-3 section 4.4 required the Superintendent's approval before a release of liquid with activity in excess of $5.3E-4$ uCi/cc. The procedures do not note how the approval must be indicated. Of the six release permits reviewed requiring prior approval, two (# 1039 and 1062) had no written record of receiving prior approval.

Based upon the review of the implementation of the procedures the inspector also noted:

- E. Instruction S01-5-1 requires under 6.2.5.4 that upon completion of a release, the Gas Radioactive Release Permit must be completed. Of the ten permits selected for review, seven did not note the actual release flow rates, and three reported values that were inconsistent with other data on the permit or with the parameters of flow gage FT-11. FT-11 is the flow gage used to monitor release flows from the Waste Gas Decay Tanks.

The licensee reviewed, at the inspector's request, Permit Nos. 3268 and 3269 and found that the release times reported on these permits are inconsistent with the times recorded on R-10. R-10 is the chart recorder for FT-11. The charts also indicate that FT-11 was pegged up scale and thus the actual flow rates could not be determined.

- F. Liquid Release Permit Numbers 1042, 1047, 1050, and 1053 involving the releases of steam generators feedwater did not have samples taken at the beginning, middle and end of the releases as the plant liquid effluent monitoring conditions required. These releases involved concentrations of radionuclides less than those expressed in 10 CFR 20 Appendix B Table II column 2. However, the procedure should have been followed.
- G. Release permits also served as the record of the radionuclide analysis, however this record fails to include the values of nuclides at minimum detectable activities. This information is required to prepare the Semiannual Operating Reports.

The inspector commented to the licensee that although no specific requirements had been violated the procedures, instructions, and their implementation appear to lack the degree of formality that an effluent release program requires, and that this informality can lead to noncompliance.

8. Testing of Control Room Air-Cleaning System

Technical Specification 4.11 requires several tests to be performed once per refueling cycle, in accordance with ANSI N510-1975. These tests are only required for the control room emergency air cleaning system. Engineering Procedure S01-V-2.8 Rev. 3, "ACCEPTANCE AND SURVEILLANCE TESTING OF CONTROL ROOM EMERGENCY AIR TREATMENT SYSTEM", describes the tests required. The inspector reviewed the above stated procedure and the tests performed on September 11, 1981. The procedure meets the intent of the Technical Specification and the tests were satisfactorily performed.

Technical Specification 4.11 also requires that the System's circuit be operated at least one hour every month. Licensee's Audit Report No. S01-43-81 identified that due to the superceding in January 1981 of Procedure S-3-3.5, Rev. 4 by S01-12.3-3, "MONTHLY OPERABILITY CHECK OF THE CONTROL ROOM EMERGENCY AIR TREATMENT SYSTEM (A-33)", the Station failed to comply with the Technical Specification from February through May 1981. Corrective Action Request (CAR) No. S01-P-423 was issued on August 14 in regard to the problem described above. The reply due date for this CAR was September 14. The inspector reminded the licensee at the end of the first visit, October 2, that a reply to the CAR had not been submitted. On October 2 the reply to the CAR was completed and a copy provided to the inspector. Corrective action consisted of submitting a Procedure Change Notice to S01-12.3-3. Review of Revision 1 of Instruction S01-12.3-3, October 14, 1981, indicates that the revised procedure fulfills the intent of the Technical Specification.

Since the apparent item of noncompliance was identified by the licensee and immediate corrective action was taken, although not quickly documented, no citation is appropriate in accordance with NRC policy.

9. Exit Interview

The inspector met with licensee representatives denoted in Paragraph 1 on three occasions associated with this inspection. On October 2, 1981 the inspector summarized the scope and findings of the inspection including noncompliance associated with instruction to workers and failure to submit the Semiannual Operating Report. In addition the following areas of concern were brought to the licensee's attention.

- A. Apparent inadequate response to Health Appraisal Inspection Findings.
- B. Apparent failure of responsible individuals to understand and execute their responsibilities in the radioactive effluent area.

- C. Failure to understand and correct Technical Specification 4.6 A.
- D. Apparent failure to assure 40 CFR 190 commitment is adequately addressed.
- E. Inadequate effluent monitor calibration.
- F. Apparent failure of R-1214 during the Waste Gas Tank explosion.
- G. Failure to maintain ORMS multipoint recorder RLR 1200 to produce a viable record of radioactive releases.
- H. Apparent inconsistencies in dilution fan flow rates, discharge times and flow rate for waste gas releases.
- I. Failure to respond in a timely manner to CAR S01-P-423.
- J. Other poor practices observed on tours of the controlled area.

Due to the scope and magnitude of these apparent problems the inspector stated that an additional site visit would be necessary to complete the inspection.

In response to these inspection findings the Station Manager stated that immediate investigation of observed deficiencies would begin and corrective actions would be taken in advance of the Inspection Report.

On October 23, 1981 the inspector again met with licensee representatives as denoted in Paragraph 1. The inspector summarized the scope and findings of the inspection as described in this report. The inspector provided the licensee written interim guidance developed by NRR addressing Technical Specification 4.6 A., calibration of effluent monitors, and 40 CFR 190.

In response to each item presented, the Station Manager with the concurrence of the Vice President, Nuclear Engineering and Operations presented a detailed response including immediate and long term corrective actions when appropriate. The Station Manager and Vice President stated their determination to resolve the identified issues and to in fact ensure radioactive effluents are properly managed.

The inspector stated that although the responses presented appeared adequate to correct identified problems, the licensee must take the initiative to maintain his operation consistent with regulatory guidance and industry standards. In addition, due to the number and significance of problems identified, it appeared likely that after in office review by NRC management, additional action may be required.

In an October 27, 1981 conference call chaired by the Regional Administrator, the Station Manager confirmed that a qualified individual had assumed and began to implement the position of Engineer Responsible for Effluent Monitoring at San Onofre Units 1, 2, and 3 on October 22, 1981. In addition, it was agreed that the licensee would establish and implement five interim actions prior to startup of the reactor to guarantee adequate effluent monitoring until the proposed corrective actions can be completed. Documentation of the exit commitments and interim actions were presented in a letter from H. B. Ray, Station Manager to F. Wenslawski, Chief, Reactor Radiation Protection Section, dated October 27, 1981. This letter is attached as Enclosure 1 to this report.

10. Confirmation of Interim Action

- A. On November 3, 1981 after startup of the reactor the inspector returned to San Onofre Unit 1 to confirm implementation of the actions described in Enclosure 1, "Response to Items Presented by NRC Region V on October 27, 1981, concerning the Effluent Monitoring Program for San Onofre Unit 1".

The inspection findings are listed below.

1. The Engineer Responsible for effluent monitoring was actively engaged in performing his assigned responsibility.
2. Flow measuring devices used to determine stack particulate and iodine activity released, and rotometers from R-1211, 1212 and R-1215 were sent to a contractor for calibration. The contractor cleaned and serviced these devices without determining "As Found" data. This is in violation of criteria on the licensee's job order and a Nonconformance Report (NCR) No. S01-P-750 was issued. The rotometer from R-1215 Air Ejector Monitor was not serviceable and was retained by the contractor. This rendered R-1215 inoperable. The inspector observed that the other on line monitor (R-1216 Steam Generator Blowdown Monitor) capable of providing early indication of Steam Generator tube leaks was operating, however, it's data point was pegged down scale on RLR 1200.

The inspector discussed the vulnerability of this situation with licensee representatives. R-1215 was restored to service at 12:15 PM on November 5, 1981.

The inspector reviewed the calibration data and correction curves furnished by the contractor. Use of the correction curve can insure a flow error of less than - 5%.

3. The inspector reviewed PCN#2 to S01-VII-1.33, dated October 28, 1981 which requires sampling of stack gaseous activity on a daily basis and during batch releases from the WGDTS. Interviews with two Chemistry Technicians indicate that they were aware of this interim requirement. Samples from the stack were collected and analyzed on November 3 and 4 as required.

Samples were taken of stack activity at the start, midpoint and near the end of WGDTS discharges on November 1 (Release No. 3402) and November 2 (Release No. 3408) as required.

Since these releases were below the lower limit of detection the licensee had not yet compared the results to ORMS response data.

4. The inspector reviewed an October 30, 1981 memorandum from the Unit 1 Superintendent to Unit 1 Watch Engineers advising them of the need to detect and alert the on-shift chemistry technicians to perform appropriate sampling whenever an operational occurrence might result in the release of gaseous activity. Review of the "Acknowledgement of Information" sheet dated November 2, 1981 indicates that the Watch Engineers read the memorandum.

The inspector reviewed a November 2, 1981 memorandum from the Unit 1 Superintendent to Unit 1 Operations Department personnel advising them of deficiencies observed in the effluent monitoring program and reminding them of their responsibility in this area. "Acknowledgement of Information" sheet dated November 2, 1981 indicates members of Operations Department read this memorandum.

5. Review of procedures S01-1.3-1, S01-5-1, and S01-5-2 all revised November 2, 1981 indicate substantive improvements that should increase the formality by which these systems are operated.

The inspector audited a training session on November 4, 1981 for members of the Operation Department. This session discussed the procedure revisions and problems identified with the ORMS system. The presentation was effective in that the operators were responsive to the problem identified.

The inspector noted that procedure S01-5-3, "Liquid Waste System Operation" had not yet been revised. The licensee representative stated that this would be completed shortly.

B. Other Observations

The inspector met with those licensee individuals responsible for Semiannual Operating Report No. 28 and presented the apparent errors and inconsistencies as a result of the in-office review.

During tours of the restricted area the inspector noted that several large signs concerning emergency signals and assembly areas have been posted.

The inspector reviewed an individual's dosimetry records to address his concern with the accuracy of his 10 CFR 20.409 exposure report. Independent dosimetry records verified the accuracy of the licensee 10 CFR 20.409 report. The individual was advised and had no further questions.

C. Post Exit Meeting

On November 5, 1981 the inspector met with licensee representatives denoted in paragraph 1. The inspector discussed the scope and findings of the inspection visit.

No item of noncompliance or significant deviation from the October 27, 1981 commitments were identified.