

Iowa Electric Light and Power Company

November 19, 1982

NG-82-2503

LARRY D. ROOT  
ASSISTANT VICE PRESIDENT  
NUCLEAR GENERATION

Mr. James G. Keppler  
Regional Administrator  
Region III  
U.S. Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, IL 60137

Subject: Duane Arnold Energy Center  
Docket No: 50-331  
Op. License No: DPR-49  
Response to NRC Special Safety Inspection  
Report 82-04

Dear Mr. Keppler:

This letter is submitted in response to your letter and Special Safety Inspection Report for the Duane Arnold Energy Center (DAEC) dated October 5, 1982. The extension of the response due date until November 19, 1982 was discussed between Mr. William Miller of my staff and M. Frank Hawkins, NRC Region III, on October 26, 1982. The attachment to this letter provides the details of our completed and pending corrective action for each item of noncompliance identified in your report.

As noted in your letter, there have been a number of communications between Iowa Electric and NRC representatives since the Special Safety Inspection. These communications prompted by that inspection and prior events, have focused on developing a comprehensive Iowa Electric program for regulatory performance improvement. This program is described in detail in our July 30, 1982 and September 30, 1982 submittals. We wish to underscore that, although the attachment to this letter describes explicit corrective actions taken in response to each Special Safety Inspection item of noncompliance, such actions are only a portion of the systematic improvements in DAEC management controls being implemented under the Regulatory Performance Improvement Program.

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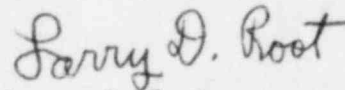
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With regard to the DAEC Safety Committee, major efforts have been and continue to be devoted to improving our procedural guidance and controls, improving scheduling, documenting activities, and our staffing has been increased. As detailed in the attachment, these activities will assure that Technical Specification requirements for annual and bi-annual audit activities are satisfied. Our intent is to satisfy these requirements in 1982 and to schedule future activities with 1982 as our baseline.

As in the past, we value comments and suggestions provided by the NRC. Following your review of the attachment, we are prepared to meet and discuss our activities, if you believe this would be of benefit.

Very truly yours,



Larry D. Root  
Assistant Vice President  
Nuclear Generation

LDR/EDR/dmh\*

cc: E. Root  
W. Miller  
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ATTACHMENT 1

NRC Item 1

Technical Specification 6.5.2.8 requires that audits of facility activities be performed under the cognizance of the Safety Committee. These audits shall encompass:

- "a. The conformance of facility operation to all provisions contained within the Technical Specifications and applicable license conditions at least once per 24 months.
- b. The performance, training and qualifications of the entire facility staff at least once per 24 months.
- c. The results of all actions to correct deficiencies occurring in facility equipment, structures, systems or method of operation that affect nuclear safety at least once per six months.
- h. Design change request safety evaluations."

Technical Specification 6.5.2.7 requires that the Safety Committee review the following:

- "e. Violations of applicable statutes, codes, regulations, orders, technical specifications, license requirements, or of internal procedures or instructions having nuclear safety significance.
- h. All recognized indications of an unanticipated deficiency in some aspect of design or operation of safety-related structures, systems, or components."

10CFR50, Appendix B, Criterion XVIII states in part, "Audit results shall be documented and reviewed by management having responsibility in the area audited."

Section D.7 of the Duane Arnold Energy Center (DAEC) Quality Assurance Program states in part, "This program is designed to meet the intent of 10CFR50, Appendix B as implemented by WASH 1284 (10/26/74), Guidance on Quality Assurance Requirements During the Operating Phase of Nuclear Power Plants."

WASH 1284 lists as guidance Regulatory Guide 1.33 (formerly Safety Guide 33), which endorses the proposed standard ANS-3.2, Standard for Administrative Controls for Nuclear Power Plants, November 2, 1972. Section 4.4 ANS-3.2-1972 states in part, "Written reports of Safety Committee audits shall be reviewed at a scheduled meeting of the independent review and audit group."

Contrary to the above, audits performed under the cognizance of the Safety Committee did not meet Technical Specification requirements; violations identified in routine QA audit reports were not reviewed by the Safety

Committee; and audit results were not, in all cases, reviewed by management having responsibility in the areas audited as evidenced by the following examples:

- a. None of the audits performed under the cognizance of the Safety Committee during the period 1979--1981 addressed the audit requirements specified in Items a, b, c, and h of Technical Specification 6.5.2.8.
- b. Violations of ANSI N45.2.2-1972; 10CFR50, Appendix B, Criterion VIII; Section 6 of the Technical Specifications; were not reviewed by the Safety Committee. All of the violations have nuclear safety significance and were identified in routine QA audit reports.
- c. QA audit reports, nonconformance reports, and corrective action reports were not reviewed by the Safety Committee; therefore, any indication of an unanticipated deficiency contained in these reports was not reviewed by the Safety Committee.
- d. A Fire Protection Audit conducted on August 25-27, 1980, was not reviewed by the Safety Committee.

This is a Severity Level IV violation (Supplement I).

Response to First Part of Item 1

Violation charged: "audits performed under the cognizance of the Safety Committee did not meet Technical Specification requirements. . ."

(1) Corrective Action Taken and Results Achieved

Technical Specification Section 6.5.2.8 was reviewed against the current schedule of Safety Committee audits for scope and schedular requirements. All Technical Specification required audits were then scheduled for performance, and have since been completed as discussed in Attachment 2.

Attachment 2 to this transmittal provides additional detail on the Iowa Electric corrective actions related to the specific examples in NRC Item 1.

(2) Corrective Action To Be Taken To Avoid Further Noncompliance

Technical Specification required audits are being performed for the Committee by auditors from the Quality Assurance Department. QA Procedure 1118.1 was changed to add requirements for Safety Committee audits. The Safety Committee reviews and approves audit plans and checklists prior to conduct of the audits. The Safety Committee also reviews findings, responses, and corrective actions to determine their adequacy. Future Safety Committee audit schedules will be reviewed for compliance with Technical Specifications on an annual basis by the Chairman of the Safety Committee, and the Manager, Corporate Quality Assurance.

(3) Date When Full Compliance Will Be Achieved

Full compliance was achieved on November 10, 1982.

Response to Second Part of Item 1

Violation charged: "violations identified in routine QA audit reports were not reviewed by the Safety Committee. . ."

(1) Corrective Action Taken and Results Achieved

To assure that violations identified within QA audits are reviewed, the Safety Committee initiated a program of reviewing reports of Quality Assurance audits conducted since January 1, 1982. The Committee has completed its review of these audits, the responses and corrective actions.

(2) Corrective Action To Be Taken To Avoid Further Noncompliance

The Safety Committee Handbook contains Committee Instruction, SCI-3, which provides administrative controls, and incorporates guidance for the review of Safety Committee Items. QA audits will be reviewed by the Safety Committee to assess whether corrective actions are adequate, to evaluate the effectiveness of the QA audit program, and for possible violations of regulations. Currently, QA audits are reviewed after responses are returned from the audited organization.

(3) Date When Full Compliance Will Be Achieved

Full compliance has been achieved.

QA audits conducted since January 1, 1982, are reviewed on a current schedule.

Response to Third Part of Item 1

Violation charged: "audit results were not, in all cases, reviewed by management having responsibility in the areas audited. . ."

(1) Corrective Action Taken and Results Achieved

Safety Committee audits are being performed for the Committee by auditors from the Quality Assurance Department. QA Procedure 1118.1 was changed to add requirements for Safety Committee audits. Since this procedure contains specific requirements for responses to Audit Findings from cognizant management within thirty days of the date of the transmittal, it assures that responsible management will review audits performed by the Safety Committee. Safety Committee audits performed in 1982 are being reviewed by management having responsibility for the area audited, in accordance with the QA Procedure 1118.1.

(2) Corrective Action To Be Taken To Avoid Further Noncompliance

Quality Assurance Department Procedure 1118.1, provides administrative controls to assure that Safety Committee audit results are reviewed by management having responsibility in the areas audited. In addition, established QA procedures will assure that appropriate corrective measures are undertaken in response to observed deficiencies. The Safety Committee will review the responses and corrective actions for adequacy.

(3) Date When Full Compliance Will Be Achieved

Full compliance has been achieved.

Safety Committee audits conducted since January 1, 1982 are being reviewed by management having responsibility with areas audited.

NRC Item 2

Technical Specification 6.5.1.6.e states that the Operations Committee shall be responsible for:

"Investigation of all violations of the Technical Specifications including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence to the Vice President - Generation and to the Chairman of the Safety Committee."

Contrary to the above, QA audit reports 79-3 and I-81-16 reported that Safety Committee audits were not being conducted in accordance with Technical Specification 6.5.2.8.c. This violation was not investigated by the Operations Committee.

Response to Item 2

(1) Corrective Action Taken and Results Achieved

The subject QA audit reports and responses have been reviewed and evaluated by the Operations Committee, including performance of an investigation and evaluation of the violations reported in the reports. The evaluation and QA audit report responses, which include recommendations to prevent recurrence, will be distributed in accordance with Technical Specification 6.5.1.6.e.

The Operations Committee Charter was revised on June 1, 1982 to require that all QA audit reports and responses be reviewed by the Operations Committee. This review will include investigation and evaluation of all Technical Specification violations.

(2) Corrective Action To Be Taken To Avoid Further Noncompliance

No further action is required.

(3) Date When Full Compliance Will Be Achieved

The Operations Committee has reviewed and approved the subject audits.

Full compliance will be achieved by November 30, 1982 when the Operations Committee evaluations and the QA audit report responses will be sent to the Assistant Vice President - Nuclear Generation and the Chairman of the Safety Committee.

NRC Item 3

Technical Specification 6.5.2.10 requires that records of Safety Committee activities shall be prepared, approved and distributed as indicated below:

- a. Minutes of each Safety Committee meeting shall be prepared, approved, and forwarded to the President within 14 days following each meeting.
- b. Reports of reviews encompassed by Specification 6.5.2.7 above, shall be prepared, approved and forwarded to the President within 14 days following completion of the review.

Contrary to the above:

- a. Minutes for Safety Committee meetings 263, 267 and 272 were forwarded to the President between 27 and 34 days after the meetings and the minutes of Safety Committee meetings after 272 were forwarded to the Executive Vice President instead of the President.
- b. No reviews of Deviation Reports prepared under Technical Specification 6.5.2.7.h (reviews of indications of unanticipated deficiencies) were forwarded to the President.
- c. The Safety Committee also failed to ensure audit reports were forwarded to the President and to management positions responsible for the audit. For example:
  - (1) The July 1980 audit of an emergency plan drill performed to meet the requirements of Technical Specification 6.5.2.8.e was submitted to the President in February 1981, seven months after completion of the audit.
  - (2) The bi-annual Safety Committee audits were last performed between July 1979 and January 1980; however, the audit reports were not sent to the President until June 1980.
  - (3) The August 1980 audit of the Fire Protection Program, performed as required by Technical Specification 6.5.2.8.i, was not sent to the President but to the Executive Vice President and not until March 1981.

- (4) Interviews indicated that since May 1981, Safety Committee audit reports were submitted to the Executive Vice President in lieu of the President.

This is a Severity Level V violation (Supplement I).

Response to Item 3a

Forwarding of meeting minutes.

(1) Corrective Action Taken and Results Achieved

The importance of prompt preparation and transmittal of Safety Committee minutes was reemphasized to key Safety Committee personnel, including the Chairman, Vice-Chairmen, and administrative support staff.

A new Safety Committee Charter had been issued in January of 1981, which required that minutes of Safety Committee meetings be transmitted to the Executive Vice President. When the conflict with the Technical Specifications was discovered, minutes were again addressed to the President with copies to the Executive Vice-President. An amendment to the Technical Specifications was initiated requesting Technical Specification Section 6.5.2.10 be changed to require that the minutes of meetings be transmitted to the Executive Vice-President. License Amendment Number 72 was approved on March 5, 1982 authorizing the change.

(2) Corrective Action To Be Taken To Avoid Further Noncompliance

An Iowa Electric Light and Power Company employee has been assigned as a full-time, permanent staff member of the Safety Committee. This individual's responsibilities include assuring proper scheduling and dissemination of Safety Committee reports and records.

(3) Date When Full Compliance Will Be Achieved

Full compliance was achieved on November 5, 1981. Distribution of meeting minutes is in accordance with Technical Specification 6.5.2.10, and time requirements are being met.

Response to Item 3b

Review of Deviation Reports

(1) Corrective Action Taken and Results Achieved

Deviation Reports, prepared under Technical Specification 6.5.2.7.h, that require reporting in accordance with Technical Specifications, result in Licensee Event Reports and are reviewed with the associated LER. The Safety Committee has initiated a program to screen 1981 and 1982 Deviation Reports for indications of unanticipated deficiencies.



(2) Corrective Action To Be Taken To Avoid Further Noncompliance

Deviation Reports, prepared under Technical Specification 6.5.2.7.h, have been included in the schedule of documents to be regularly screened and reviewed. Safety Committee Instruction SCI-3 gives guidance on this review item. Meeting minutes will document the results of such reviews. Committee meeting minutes are prepared, approved and distributed in accordance with Technical Specification 6.5.2.10.

(3) Date When Full Compliance Will Be Achieved

Full compliance has been achieved.

The review of 1981 Deviation Reports was completed on November 10, 1982. Deviation Reports issued in 1982 are being reviewed on a current schedule.

Response to Item 3c

Forwarding of audit reports

(1) Corrective Action Taken and Results Achieved

QA Procedure 1118.1, was revised to reflect the additional requirements for distribution of Safety Committee audit reports. Safety Committee audit reports issued since January 1, 1982 have been distributed to the proper Company Officials.

(2) Corrective Action To Be Taken To Avoid Further Noncompliance

QA procedures presently in place should assure that Safety Committee audit reports are forwarded to the appropriate Corporate and Management positions.

(3) Date When Full Compliance Will Be Achieved

We have been in full compliance since January 1, 1982.

NRC Item 4

10CFR50, Appendix B, Criterion XVIII states in part, "A comprehensive system of planned and periodic audits shall be carried out to verify compliance with all aspects of the quality assurance program and to determine the effectiveness of the program."

Section D.7 of the DAEC Quality Assurance Program states in part, "This program is designed to meet the intent of Appendix B to 10CFR50 as implemented by WASH 1284 (October 26, 1974), Guidance on Quality Assurance Requirements During the Operating Phase of Nuclear Power Plants."

WASH 1284 addressed ANSI N45.2.12, "Requirements for Auditing of Quality Assurance Programs for Nuclear Power Plants," which states in part:

"4.4 Reporting

An audit report, which shall be signed by the audit team leader, shall provide:

4.4.4 A Summary of audit results, including an evaluation statement regarding the effectiveness of the quality assurance program elements which were audited."

and;

"4.5 Followup

4.5.1 By Audited Organization. Management of the audited organization or activity shall review and investigate any adverse audit findings to determine and schedule appropriate corrective action including action to prevent recurrence and shall respond as requested by the audit report, giving results of the review and investigation. The response shall clearly state the corrective action taken or planned to prevent recurrence. In the event that corrective action cannot be completed within thirty days, the audited organization's response shall include a scheduled date for the corrective action."

Contrary to the above:

- a. Few of the 24 month Safety Committee audits conducted between July 1979 and January 1980 (such as audits of Instrumentation and Control, January 1980, and Plant Maintenance and Modification, July 1979) and none of the six QA audits sampled before November 1980 (audit numbers 79-3, 79-5, 79-20, 79-22, I-80-06, and I-80-27) contained summary statements as to the effectiveness of the QA program elements which were audited.
- b. The most recent group of 24 month Safety Committee audits were performed between July 1979 and January 1980. After Committee review in May 1980 the results which pertained to the Nuclear Generation Department were forwarded to that department for action with a request for response by August 1, 1980. Nuclear Generation Department submitted their response in July 1981.

This is a Severity Level V violation (Supplement I).

Response to Item 4a

No summary statement on audits.

(1) Corrective Action Taken and Results Achieved

Promptly following the NRC PAB inspection, all QA audit reports starting with I-81-27 (dated December 7, 1981) do include an evaluation statement. This statement evaluates the effectiveness of the QA program elements which were audited, and is contained in the Summary Section of the report. QAP 1118.1 was revised to add this requirement to the QA procedure on audits. Additionally, Safety Committee audits are now conducted in accordance with this procedure. This assures that Safety Committee audits also include evaluation statements.

(2) Corrective Action To Be Taken To Avoid Further Noncompliance

No further action is required.

(3) Date When Full Compliance Will Be Achieved

Full compliance has been achieved on all audits conducted since December 7, 1981.

Response to Item 4b

Followup on Safety Committee audits.

(1) Corrective Action Taken and Results Achieved

Safety Committee audits are being performed for the Committee by auditors from the Quality Assurance Department. QA Procedure 1118.1 was changed to add requirements for Safety Committee audits. This procedure requires a response within thirty (30) days of transmittal of the audit report. The QA audit procedure also provides for delinquency notices to be distributed if the response is not received on time. Safety Committee audits issued since January 1, 1982 require timely response and follow-up according to the requirements of Quality Assurance Procedure 1118.1.

(2) Corrective Action To Be Taken To Avoid Further Noncompliance

No further action is required.

(3) Date When Full Compliance Will Be Achieved

Full compliance has been achieved on all audits conducted since January 1, 1982.

NRC Item 5

10CFR50, Appendix B, Criterion V states in part, "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures or drawings."

Section D.7 of the DAEC Quality Assurance Program states in part, "Requirements of the Iowa Electric Light and Power Company Operating Quality Assurance Program are implemented and controlled by instructions, procedures and drawings."

Quality Assurance Procedure 1102.5, "Quality Control Personnel - Qualification and Training," required that the Quality Control Supervisor develop and retain a Training Program Outline (Section 5.3.1) and that he complete and maintain a Training Program Status Log (Section 5.3.5).

The Training Programs Administrative Manual, Section 1.3.1 required that the Assistant Chief Engineer be responsible for evaluating the effectiveness of each (individual training) program.

Contrary to the above, prior to November 1981, the Quality Control Supervisor had not developed a Training Program Outline for 1981, and had not completed and maintained a Training Program Status Log since 1979. Also, the Assistant Chief Engineer (Technical Support) had not evaluated the effectiveness of the non-licensed training programs.

This is a Severity Level V violation (Supplement I).

Response to Item 5

Training Program Outline and Status Log

(1) Corrective Action Taken and Results Achieved

The Training Program Outline was issued during the week that the Performance Appraisal Team conducted their evaluation. This matter was discovered during the course of the evaluation and immediate action corrected this condition.

The Training Program Outline and Training Program Status Log have been promptly updated as training occurs since this problem was identified. The Quality Control Supervisor was reinstructed as to the importance of these activities.

(2) Corrective Action To Be Taken To Avoid Further Noncompliance

No further action is required.

(3) Date When Full Compliance Will Be Achieved

Full compliance was achieved on October 5, 1981.

The Assistant Chief Engineer (Technical Support) had not evaluated the effectiveness of the non-licensed training programs.

(1) Corrective Action Taken and Results Achieved

The Training Program Administrative Manual, Section 1.3.1 was revised on May 26, 1982 to specify the means by which the Assistant Chief Engineer - Technical Support will conduct the evaluation of the effectiveness of each individual training program. This evaluation will be conducted on a day to day basis via the normal management controls over plant work and through the approval process for program changes. On an annual basis a complete evaluation report will be completed by the Training Coordinator and submitted to the Assistant Chief Engineer - Technical Support for review and followup action, as appropriate.

(2) Corrective Action To Be Taken To Avoid Further Noncompliance

A complete evaluation report prepared by the Training Coordinator covering the effectiveness of each individual training program will be submitted to the Assistant Chief Engineer - Technical Support for review and followup action, as appropriate.

(3) Date When Full Compliance Will Be Achieved

Full compliance will be achieved by December 31, 1982.

NRC Item 6

10CFR55, Appendix A requires that each licensed operator and senior operator "is cognizant of design changes, procedure changes, and facility license changes."

Contrary to the above, nine licensed operators or senior operators failed to complete required training on design and procedure changes which were issued for reading on November 1 and December 9, 1981; four licensed operators or senior operators failed to complete required training on design and procedure changes issued June 3, 1981; and two licensed operators or senior operators failed to complete required training on design and procedure changes issued July 15, 1981.

This is a Severity Level V Violation (Supplement I).

Response to Item 6

(1) Corrective Action Taken and Results Achieved

The subject licensed operators and senior operators completed the required training on design and procedure changes prior to March 1, 1982.

(2) Corrective Action To Be Taken To Avoid Further Noncompliance

Procedures to assure that document review is completed in a timely manner are currently being developed for incorporation into the Administrative Control Procedures. In the interim, material is being distributed to the operators on a bi-weekly basis and bi-weekly audit of the document review book is being conducted by the training department to assure that the operators are reading the required material.

(3) Date When Full Compliance Will Be Achieved

Full compliance will be achieved by March 1, 1983 when the procedures concerning timely document review are incorporated into the Administrative Control Procedures.

## ATTACHMENT 2

In the NRC Notice of Violation for the Special Safety Inspection, four general examples supporting the violations in NRC Item 1 were identified. These examples, reproduced in attachment 1, delineated DAEC Safety Committee audits that were not performed in various time frames, some of which reach back as much as four years. The DAEC corrective action was designed with the following priorities; (1) Promptly define and initiate audit activities to bring current Safety Committee audits into compliance (2) Provide administrative controls to assure future compliance, and (3) Conduct audits of past activities to the extent necessary and prudent to assure that present activities are being conducted in a safe manner. The extent to which past activities were audited was determined on a case by case basis. In some cases, it was determined that to conduct an audit of old activities would not provide meaningful information. An example is the audit of the performance, training and qualification of the facility staff (Technical Specification 6.5.2.8.b) as it existed in 1979-1980. In recognition of a more significant safety benefit to be gained by focusing Safety Committee attention on current activities, efficient utilization of resources did not, in our view, warrant detailed auditing of all items identified by the Special Inspection report that were many years old.

Discussed below is the extent to which we reviewed past activities identified in the examples provided by the NRC.

- Technical Specification 6.5.2.8.a requires an audit encompassing "The conformance of facility operation to all provisions contained within the Technical Specifications and applicable license conditions at least once per 24 months." Safety Committee audit I-82-07 was conducted to audit this area. This audit was concentrated primarily on 1981 and 1982 activities, with lesser emphasis on prior years.
- Technical Specification 6.5.2.8.b requires an audit encompassing "The performance, training and qualifications of the entire facility staff at least once per 24 months." Since personnel performance, training and qualifications are constantly changing conditions, no attempt was made to audit these areas prior to 1982. Safety Committee audit I-82-14 was conducted to examine records of the plant staff at the time of the audit. Records of fifty percent of the staff were covered in this audit. The remaining fifty percent will be audited in 1983 to fulfill the 24 month requirement.
- Technical Specification 6.5.2.8.c requires an audit of "The results of all actions taken to correct deficiencies occurring in facility equipment, structures, systems or method of operation that affect nuclear safety at least once per six months." Safety Committee audit I-81-31 was conducted to fulfill this requirement. This audit was actually conducted as an extensive 100% review of all closed Nonconformance Reports, Deviation Reports, Corrective Action Reports, Licensee Event Reports, and Procurement Corrective Action Reports from 1980 and 1981. Safety Committee audit I-82-17 was similarly conducted to cover the first half of 1982. This audit will be conducted on a six month interval to satisfy the requirements of Technical Specification 6.5.2.8.c.

- Technical Specification 6.5.2.8.h requires an audit of "Design change request safety evaluations." Safety Committee audit I-82-12 was conducted to examine safety evaluations of Design Change Requests and Field Change Requests conducted primarily in the 1980 - 1982 period. Although the Technical Specification 6.5.2.8.h does not specify a time requirement for this audit, it is our intention to repeat this audit on a 24 month cycle.
- As part of the actions taken to strengthen Safety Committee review activities, the Committee has begun reviewing reports of all routine QA audits conducted since January 1, 1982. These audits are reviewed to identify potential violations of regulations, indications of unanticipated deficiencies, violations of Technical Specifications, and Operating abnormalities having nuclear safety significance.

Responses and corrective actions are reviewed for adequacy.

- The Fire Protection audit conducted on August 25-27, 1980 was reviewed by the Safety Committee. This review addressed the deficiencies found in the audit and the actions taken to correct them.