

June 2, 2005

Mr. Michael F. Kennedy, Manager  
Electrical Products Group  
AREVA Framatome ANP, Incorporated  
200 West Kensinger Drive  
Suite 600  
Cranberry Township, Pennsylvania 16066

SUBJECT: NRC INSPECTION REPORT 99901355/2005-201, NOTICE OF VIOLATION  
AND NOTICE OF NONCONFORMANCE

Dear Mr. Kennedy:

On May 2-4, 2005, U.S. Nuclear Regulatory Commission (NRC) inspectors conducted an inspection at the AREVA Framatome ANP, Incorporated, Electrical Products Group (ELP) facility in Cranberry Township, Pennsylvania. The enclosed report presents the details of that inspection.

The NRC inspectors reviewed the implementation of selected portions of ELP's quality assurance program, and reviewed activities associated with its dedication and electrical component replacement services to the nuclear industry. It was found that certain of your activities appeared to be in violation of NRC requirements. Specifically, a review of AREVA's Corporate Policy 0401, "Reporting of Defects, Failures to Comply, and Substantial Safety Hazards," and Administrative Procedure 1707-01, "Evaluation and Reporting of Safety Significant Issues," was reviewed and determined inappropriate to ensure that the salient requirements of §21.21(a) of 10 CFR Part 21 (Part 21) were effectively executed. Additionally, two other issues were identified by the NRC inspectors that were contrary to the requirements of Part 21. The inspectors identified that ELP did not perform a required evaluation of an identified deviation, as defined in §21.3 of Part 21, and ELP did not provide the required interim report to the NRC of a deviation that was being evaluated in accordance with §21.21 (a) of Part 21.

The violations are cited in the enclosed Notice of Violation (NOV), and the circumstances surrounding the NOV are described in detail in the enclosed report. Please note that you are required to respond to this letter and should follow the instructions specified in the enclosed NOV when preparing your response. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In addition, the NRC inspectors found that the implementation of your quality assurance program failed to meet certain NRC requirements imposed on you by your customers. Specifically, the inspectors determined that compliance with 10 CFR Part 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," that was contractually imposed on ELP by its nuclear utility customers was not met in certain areas. One nonconformance is cited in the enclosed Notice of Nonconformance (NON), and the

Mr. M. F. Kennedy

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circumstances surrounding it are described in detail in the enclosed report. You are requested to respond to the nonconformance and should follow the instructions specified in the enclosed NON when preparing your response.

In accordance with §2.390, "Public inspections, exemptions, requests for withholding," of 10 CFR Part 2, "Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders," a copy of this letter and its enclosures will be placed in the NRC's Public Document Room (PDR).

Sincerely,

*/RA/*

Theodore R. Quay, Chief  
Plant Support Branch  
Division of Inspection Program Management  
Office of Nuclear Reactor Regulation

Enclosures: 1. Notice of Violation  
2. Notice of Nonconformance  
3. Inspection Report 99901355/2005-201

cc w/encl: Ms. Fran Starr, Quality Manager  
AREVA Electrical Products  
200 West Kensing Drive  
Suite 600  
Cranberry Township, Pennsylvania 16066

Mr. M. F. Kennedy

- 2 -

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- Enclosures:
1. Notice of Violation
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  3. Inspection Report 99901355/2005-201

cc w/encl: Ms. Fran Starr, Quality Manager  
AREVA Electrical Products  
200 West Kensing Drive  
Suite 600  
Cranberry Township, Pennsylvania 16066

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## NOTICE OF VIOLATION

AREVA Framatome ANP, Incorporated  
Electrical Products Group  
Cranberry Township, Pennsylvania 16066

Inspection Report 99901355/2005-201

During a U.S. Nuclear Regulatory Commission (NRC) inspection conducted on May 2–4, 2005, violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Section 21.21, "Notification of failure to comply or existence of a defect and its evaluation," of 10 CFR Part 21, requires, in part, that each individual, corporation, partnership, dedicating entity, or other entity subject to the Part 21 regulation shall adopt appropriate procedures to (1) Evaluate deviations and failures to comply to identify defects and failures to comply associated with substantial safety hazards as soon as practicable, and, except as provided in §21.21 (a)(2) of Part 21, in all cases within 60 days of discovery, in order to identify a reportable defect or failure to comply that could create a substantial safety hazard, were it to remain uncorrected; and (2) Ensure that if an evaluation of an identified deviation or failure to comply potentially associated with a substantial safety hazard cannot be completed within 60 days from discovery of the deviation or failure to comply, an interim report is prepared and submitted to the Commission through a director or responsible officer or designated person.

Contrary to the above, as of May 2, 2005, AREVA Framatome ANP, Incorporated, Electrical Products Group (ELP):

1. Failed to adopt appropriate procedures to evaluate *deviations* and failures to comply to identify *defects* and failures to comply associated with *substantial safety hazards* as soon as practicable, in order to identify a reportable *defect* or failure to comply that could create a *substantial safety hazard*, were it to remain uncorrected.  
Violation 99901355/2005-201-01.
2. Failed to perform the required *evaluation*, as defined in §21.3, of a *deviation* that was identified in ELP's nonconformance report (NCR) 2004/19, regarding a circuit breaker handle returning unaided to the indicated trip position following a test of the instantaneous trip function. ELP noted that it was required to perform an *evaluation* of the *deviation* on the nonconformance report (NCR), but failed to perform the required *evaluation*.  
Violation 99901355/2005-201-02.
3. Failed to provide an interim Part 21 report, within 60 days of *discovery*, to the NRC of a *deviation* that it identified on ELP's NCR 2004/09.  
Violation 99901355/2005-201-03

These are Severity Level IV violations (Supplement VII).

**ENCLOSURE 1**

Pursuant to the provisions of 10 CFR 2.201, "Notice of violation," AREVA Framatome ANP, Incorporated, Electrical Products Group is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555-0001, with a copy to the Chief, Plant Support Branch, Division of Inspection Program Management, Office of Nuclear Reactor Regulation, within 30 days of the date of the letter transmitting this Notice of Violation. This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation; (2) the corrective steps that have been taken and the results achieved; (3) the corrective steps that will be taken to avoid further violations; and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. Where good cause is shown, consideration will be given to extending the response time.

Dated at Rockville, Maryland this 2<sup>nd</sup> day of June 2005.

## NOTICE OF NONCONFORMANCE

AREVA Framatome ANP, Incorporated  
Electrical Products Group  
Cranberry Township, Pennsylvania 16066

Inspection Report 99901355/2005-201

Based on the results of an inspection conducted on May 2 through 4, 2005, the inspectors determined that certain of AREVA Framatome ANP, Incorporated Electrical Products Group (ELP) activities were not conducted in accordance with NRC requirements.

Criterion V, "Instructions, Procedures, and Drawings," of 10 CFR Part 50, Appendix B, states, 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. Instructions, procedures, or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

Section 5.0, "Instructions, Procedures, and Drawings," of AREVA Electrical Products Quality Plan states that ELP Managers are responsible for ensuring that activities affecting quality are prescribed in documented operating instructions or drawings appropriate to the circumstances which are prepared, reviewed, and approved prior to commencing activities. Managers are responsible for ensuring that activities affecting quality are performed in accordance with the documented operating instructions, or drawings. These documents include or reference appropriate quantitative or qualitative acceptance criteria for ensuring that the activity has been satisfactorily accomplished.

Managers are responsible for maintaining these documents current to reflect actual work practice. Operating instructions, and drawings are prepared, reviewed for adequacy, approved by authorized personnel, issued, and controlled as prescribed in approved operating instructions. Changes to these documents are reviewed and approved as the original documents.

Contrary to the above, ELP did not prescribe adequate instructions, procedures, or drawings to ensure that appropriate quantitative or qualitative acceptance criteria was specified for determining that important activities had been satisfactorily accomplished regarding dedication of control wire associated with ELP dedication package DP 04-17. Specifically, ELP's evolving critical characteristics and acceptance criteria for crimped AMP Faston flag terminals did not ensure that important safety-related activities had been satisfactorily accomplished. Nonconformance 99901355/2005-201-04.

Please provide a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Chief, Plant Support Branch, Division of Inspection Program Management, Office of Nuclear Reactor Regulation, within 30 days of the date of the letter transmitting this Notice of Nonconformance. This reply should be clearly marked as a "Reply to a Notice of Nonconformance" and should include a description of steps that have been or will be taken to prevent recurrence.

Dated at Rockville, Maryland this 2<sup>nd</sup> day of June 2005.

**ENCLOSURE 2**

**U.S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF NUCLEAR REACTOR REGULATION**

Report No: 99901355/2005-201

Organization: AREVA Framatome ANP, Incorporated  
Electrical Products Group  
200 West Kensing Drive  
Suite 600  
Cranberry Township, Pennsylvania 16066

Vendor Contact: Ms. Fran Starr, Quality Manager  
(724) 779-9800 (Ext 1321)

Nuclear Industry: AREVA Framatome ANP, Incorporated, electrical products group (ELP) is an AREVA and Siemens company that provides qualification and dedication services of commercial grade items (CGIs). ELP primarily provides electrical components, including molded case circuit breakers, low and medium voltage switchgear, low and medium voltage circuit breakers, relays, starters, and motor control centers. ELP also provides safety-related services, including refurbishment of circuit breakers and motor control centers.

Inspection Dates: May 2-4, 2005

Inspectors:

<u>/RA/</u>	<u>June 1, 2005</u>
Joseph J. Petrosino, IPSB/DIPM/NRR Inspection Team Leader	Date
<u>/RA/</u>	<u>June 2, 2005</u>
Gregory C. Cwalina, IPSB:DIPM:NRR	Date
<u>/RA/</u>	<u>June 1, 2005</u>
Victor Hall, OEDO	Date

Approved by:

<u>/RA/</u>	<u>June 2, 2005</u>
Dale F. Thatcher, Section Chief Plant Support Branch Division of Inspection Program Management Office of Nuclear Reactor Regulation	Date

## 1.0 INSPECTION SUMMARY

The purpose of this inspection was to evaluate selected portions of the quality assurance (QA) and 10 CFR Part 21 (Part 21) controls that ELP has established and implemented.

The ELP group is an AREVA and Siemens company that provides qualification and dedication services for numerous nuclear power plant facilities. The inspectors focused on ELP activities as they apply to the qualification, dedication and to the supply of CGIs that have been dedicated as basic components to U.S. Nuclear Regulatory Commission (NRC) licensed facilities. The inspection also assessed certain AREVA policies and procedures that were associated with the control of ELP's safety-related (SIR) activities and Part 21.

The inspection was conducted at ELP's facility in Cranberry Township, Pennsylvania. The inspection bases were:

- Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to Part 50 of Title 10 of the Code of Federal Regulations (Appendix B), and
- 10 CFR Part 21, "Reporting of Defects and Noncompliance."

## 2.0 STATUS OF PREVIOUS INSPECTION FINDINGS

There were no previous NRC inspections performed at the ELP Cranberry Township, Pennsylvania facility prior to this inspection.

## 3.0 INSPECTION FINDINGS AND OTHER COMMENTS

### 3.1 10 CFR PART 21 PROGRAM

#### a. Inspection Scope

The NRC inspectors reviewed policies, procedures and records related to the identification and evaluation of *deviations* to assess the overall effectiveness of ELP's program that had been established to comply with the requirements of Part 21.

#### b. Observations and Findings

The NRC inspectors reviewed AREVA's policy and procedures adopted to implement the provisions of Part 21 and reviewed several project specific documents, such as nonconformance reports (NCRs), that were controlled in accordance with the ELP quality program.

##### b.1. Policy and Procedures Adopted to Implement Part 21

The inspectors reviewed AREVA's Corporate Policy 0401 (Policy 0401), "Reporting of Defects, Failures to Comply, and Substantial Safety Hazards," approved June 28, 2004, and AREVA's Administrative Procedure 1707-01 (Procedure 1707), "Evaluation and Reporting of Safety Significant Issues," approved August 2, 2004. These two documents were provided to the NRC



inspectors, and represented as the controlling documents for the policy and procedure established by AREVA Framatome ANP, Incorporated (FANP) that were adopted by ELP to address the regulations contained in Part 21. The applicability section of both AREVA documents stated that they were applicable to all FANP organizations which include the ELP facility in Cranberry Township, Pennsylvania.

The stated purpose of Policy 0401 was "To ensure procedures are established and implemented for promptly reporting defects or a failure to comply to the NRC as set forth in 10CFR21 [and] To inform employees of their responsibilities and rights." In Section IV, "Policy," of Policy 0401, the document provides a synopsis of certain salient points of §21.21(a) and §21.21(b). The Section IV policy statement directed applicable FANP facilities that each was required to adopt Procedure 1707 to implement the provisions of Part 21.

The inspectors noted that the definitions contained in Policy 0401 were not verbatim to the definitions contained in §21.3, "Definitions," of Part 21, in all cases, and in one case introduced a non-Part 21 term identified by AREVA as "discovery process." Additionally, the NRC inspectors found that Policy 0401 stated it would "inform employees of their responsibilities." However, Policy 0401 does not delineate individual employee responsibility to ensure that FNP staff identify and report to cognizant FNP supervision *deviations* and failures to comply.

Further, Policy 0401 definition of discovery was not verbatim to the Part 21 definition. Policy 0401 defined discovery as, "The documentation of the discovery process in which the existence of a deviation or failure to comply that may also be a defect is first identified." However, §21.3, states that *discovery "means the completion of the documentation first identifying the existence of a deviation or failure to comply potentially associated with a substantial safety hazard within the evaluation procedures discussed in §21.21(a)."*

The position of the NRC staff, is that the term contained within the Part 21 definition of *discovery*, "*completion of the documentation first identifying the existence of a deviation or failure to comply potentially associated with a substantial safety hazard,*" is the point in time at which an applicable entity/supplier's quality assurance (QA) staff documents its identification of a departure from the technical requirements included in a procurement document or a failure to comply with any rule, regulation or technical or purchase order requirement of a basic component or service. If the departure from the procurement documents or failure to comply is associated with safety-related basic components or services, the NRC presumption is that the issue would be characterized as being "potentially associated with a *substantial safety hazard.*" That would consequently be required to be either evaluated, if the entity had the "capability to perform the evaluation to determine if a *defect* exists" or to inform the purchasers or affected licensees within five working days of the determination that the entity does not have the capability to perform the evaluation to identify a reportable *defect* or failure to comply that could create a *substantial safety hazard* were it to remain uncorrected.

It is recognized by the NRC staff that a majority of suppliers, dedicating entities and vendors do not have the capability to perform the required *evaluation*, as defined in §21.3, in order to identify a reportable *defect* or failure to comply that **could create a substantial safety hazard**, were it to remain uncorrected. The NRC's experience related to Part 21 implementation has found that typically only Architect-Engineering firms (AE's), nuclear steam system suppliers (NSSS), and NRC licensed utility owners (NRC-licensees) possess the required capability and knowledge to make the determination of whether a *deviation* or failure to comply, on the basis of an "*evaluation*," **could create a substantial safety hazard**.

Further, a review of the discovery process steps documented in Procedure 1707 identified some aspects that may cause confusion in the implementation of certain provisions of the Part 21 regulation, such as the actions required in §21.21(a) and §21.21(b). For example, the completion of the documentation first identifying the existence of a *deviation* or failure to comply is an important benchmark in the actions required to be taken in the Part 21 requirements and that benchmark can become unclear in the AREVA developed "discovery process." Therefore, the inspectors determined that the "discovery process" identified in Policy 0401 and delineated in Procedure 1707 could mislead FANP personnel to perform inadequate or untimely activities.

The inspectors review of Administrative Procedure 1707 also noted that the "purpose" section stated that it implements the requirements of Policy 0401 and establishes a "discovery process" instead of focusing on what the Part 21 regulation requires. Although Procedure 1707 addresses some aspects of Section 206 of the Energy Reorganization Act of 1974 (Section 206), the inspectors note that Part 21 requires that each entity subject to its regulations "shall adopt appropriate procedures to *evaluate deviations and failures to comply associated with substantial safety hazards . . . in all cases within 60 days of discovery*, [as defined in §21.3 of Part 21], in order to identify a reportable *defect* or failure to comply that could create a *substantial safety hazard*, were it to remain uncorrected . . ." Section 21.21(a) establishes requirements of Part 21 for compliance with Section 206. Neither Part 21 nor Section 206 addresses or defines a "discovery process" as discussed above. Further, the inspectors identified that Procedure 1707 defines AREVA's discovery process as "used to evaluate a nonconformance or failure to comply to determine whether [the nonconformance or failure to comply] constitutes a deviation, and might, upon further evaluation, constitute a defect." The Part 21 defined process for "*evaluation*" means the process of determining whether a particular *deviation* could create a substantial hazard or determining whether a failure to comply is associated with a *substantial safety hazard*." The NRC inspectors specifically note that the similarity between the AREVA definition of discovery process and the Part 21 definition of evaluation could cause confusion with implementation of the provisions of Part 21.

The inspectors' review of AREVA's discovery process that was delineated in Procedure 1707 determined that the discovery process concentrates on making a determination of whether a nonconformance or condition report deficiency is a deviation. The AREVA definition for nonconformance appears to be the point of first identifying that a *deviation* or failure to comply exists and, therefore, appears to be the point of *discovery*, as defined in §21.3 of Part 21. Several steps in the

discovery process appeared to be inconsistent with an effectively implemented Part 21 program. For example, Section 9.1.1 of Procedure 1707 allows the program coordinator one week to determine "a need for discovery," even though *discovery* means completion of the documentation first identifying the existence of a *deviation* of failure to comply, such as an AREVA nonconformance report. The inspectors found this to be inconsistent with Part 21 because at this point AREVA has already completed the documentation first identifying the existence of a *deviation*, i.e., *discovery*. Additionally, Section 9.1.2 of Procedure 1707 allows AREVA two weeks to either select a "discovery team leader to manage the discovery process" or determine whether "the issue can be declared a *deviation* or not." The inspectors also found this section to add additional time and confusion since the documentation showing *discovery*, as defined in §21.3, has already occurred.

The inspectors concluded that instead of concentrating on the effective implementation of the Part 21 regulations, AREVA has focused on developing a very comprehensive, step-by-step process that appears to be used to investigate and disposition deviations. For example, step 9.1.7 of Procedure 1707, states, in part, that "if the issue is a deviation and sufficient information is available to form a collective judgement that the issue is not a defect, complete steps 9.1.7-9.1.10, 9.1.19, and 9.1.21." This "collective judgement" process could allow an incorrect disposition of a *defect* or failure to comply that could create a *substantial safety hazard*, were it to remain uncorrected, because AREVA will most likely not have the capability to determine if a *substantial safety hazard* could be created at NRC licensee facilities. Therefore, the inspectors concluded that AREVA's Procedure 1707 may not adequately ensure that ELP either informs its customers of *deviations* so they may cause an *evaluation* to be performed, or ensure that ELP evaluates *deviations* and failures to comply to identify *defects* and failures to comply associated with *substantial safety hazards* as soon as practicable in accordance with the provisions of Part 21. Violation 99901355/2005-201-01 was identified in this area.

#### b.2 Nonconformances Related to the Identification and Evaluation of Deviations

The inspectors determined that ELP generates NCRs on all items that do not conform to purchase order requirements. Section 12 of the NCR report form requires noting if the NCR requires a Part 21 *evaluation*. The inspectors reviewed three ELP nonconformance reports to determine if ELP is properly implementing the requirements of Part 21. The three NCRs that were reviewed were as follows:

NCR 2004/19 related to an NCR regarding a breaker handle returning unaided to the indicated trip position following a test of the instantaneous trip function. ELP noted a Part 21 *evaluation* was required. The NCR review noted the cause of the *deviation* and corrective actions. However, during discussions with ELP personnel and a review of the NCRs and associated documents, the inspectors identified that ELP did not perform the required Part 21 *evaluation*. As a result, Violation 99901355/2005-201-02 was identified.

NCR 2004/09 related to incorrect hardware being installed on a motor control center (MCC) bucket which prevented the disconnect switch from closing. The

*deviation* was discovered by the licensee (licensee CR 04-02452 dated April 2, 2004) who informed ELP. ELP opened their NCR. The need for a Part 21 *evaluation* in Section (I 2) was originally noted as "TDB" [to be determined]. ELP had provided the licensee with 31 buckets in the affected PO. The licensee identified the *deviation* as associated with one bucket. ELP requested the licensee to examine or allow ELP to examine the other supplied buckets to determine the extent of condition (i.e., how many buckets were affected). ELP proceeded with a root cause investigation and corrective actions. Due to plant operating conditions, the licensee was not able to respond to ELP's request for examination of the other buckets. Without the extent of condition knowledge, ELP determined that they were not able to evaluate the *deviation* under Part 21. ELP issued a letter on December 10, 2004 (LTR 04367), informing the licensee that the licensee will be responsible for performing the Part 21 *evaluation*. However, the inspectors noted the evaluation had been underway in ELP for several months. ELP did not provide an interim Part 21 report to the NRC, as required by 10 CFR Part 21.

The inspectors were provided a copy of an internal audit conducted from December 7-10, 2004. The internal audit identified that ELP did not perform the Part 21 *evaluation* relating to NCR 2004/09 in a timely manner. The report also noted that the customer had not been informed so that the customer could perform the *evaluation*. The audit finding resulted in the December 10, 2004, letter to the licensee. Although the audit concentrated on performing the *evaluation* in a timely manner or informing the customer, the audit did not identify the failure of ELP to provide an interim Part 21 report to the NRC. As a result, Violation 99901355/2005-201-03 was identified in this area.

NCR 2004/11 relates to an NCR regarding the improperly welded hinge on a MCC bucket door. ELP noted the NCR as requiring a Part 21 *evaluation*. Contact with the licensee indicated the item was not a safety-significant part. Therefore, no further Part 21 *evaluation* or notification was required. The inspectors determined that ELP took appropriate corrective actions, including adding a check to examine both sides of the hinge welds during dedication testing and review.

c. Conclusions

The inspectors determined that ELP's Part 21 program conflicted with the requirements of 10 CFR Part 21 in three areas and cited each as a severity level IV violation of Part 21 requirements. The inspectors concluded that (1) ELP did not adopt appropriate procedures to evaluate *deviations* and failures to comply to identify *defects* and failures to comply associated with *substantial safety hazards* as soon as practicable; (2) ELP did not perform a Part 21 required *evaluation* of an ELP identified *deviation* that was identified in ELP's nonconformance report (NCR) 2004/19, regarding a circuit breaker handle returning unaided to the indicated trip position following a test of the instantaneous trip function; and (3) ELP did not provide an interim Part 21 report, within 60 days of *discovery*, to the NRC of a *deviation* that ELP identified on NCR 2004/09.

Additionally, the NRC inspectors were concerned that the AREVA discovery process, could mislead FANP personnel to perform inadequate and untimely *evaluations* of whether a *substantial safety hazard* exists even though AREVA will most likely not have the specific licensee's safety system application and associated interactions to perform an *evaluation*, as defined in §21.3 of Part 21.

### 3.2 REVIEW OF ELP QA PROGRAM IMPLEMENTATION

#### a. Inspection Scope

The NRC inspectors reviewed the implementation of ELP's QA program as it relates to the control of safety-related (S/R) activities. Specifically, the inspectors reviewed two dedication packages of S/R components. The inspectors selected these packages based on a February 10, 2005, Part 21 notification regarding a reportable defect in "*single insulated switchboard*" (SIS) control wires.

#### b. Observations and Findings

The inspectors reviewed dedication packages DP 04-17 for South Texas Project (STP) DS Breaker Control Wire and DP 04-16 for Calvert Cliffs Nuclear Plant (CCNP) DS Circuit Breakers. The inspectors focused on the evolution of ELP's critical characteristics and acceptance criteria which were used to determine acceptability of AMP Faston flag terminals.

ELP's first S/R wiring dedication project was project #1512STP. The dedication package for this project was DP 04-17. Generic Section H of this package identified several critical characteristics for the wiring based on Criterion V, "Instructions, Procedures, and Drawings," of 10 CFR Part 50, Appendix B, that stated:

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. Instructions, procedures, or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

The inspectors also noted that Section 5.0, "Instructions, Procedures, and Drawings," of AREVA Electrical Products Quality Plan stated:

ELP Managers are responsible for ensuring that activities affecting quality are prescribed in documented operating instructions or drawings appropriate to the circumstances which are prepared, reviewed, and approved prior to commencing activities. Managers are responsible for ensuring that activities affecting quality are performed in accordance with the documented operating instructions, or drawings. These documents include or reference appropriate quantitative or qualitative acceptance criteria for ensuring that the activity has been satisfactorily accomplished.



Managers are responsible for maintaining these documents current to reflect actual work practice. Operating instructions, and drawings are prepared, reviewed for adequacy, approved by authorized personnel, issued, and controlled as prescribed in approved operating instructions. Changes to these documents are reviewed and approved as the original documents.

The inspectors identified that on November 19, 2004, the wires were signed off in DP 04-17 as satisfactory for the "Workmanship" critical characteristic with an acceptance criteria of "Crimped properly." The inspectors determined that this acceptance criteria did not ensure safety-related quality, as it did not include appropriate quantitative or qualitative acceptance criteria. It therefore did not meet the requirements of the ELP Quality Plan or of Appendix B. The NRC inspectors concluded that ELP did not prescribe instructions, procedures, or drawings with appropriate quantitative or qualitative acceptance criteria for the dedication of control wire for dedication package DP 04-17.

During the implementation of DP 04-16, ELP discovered problems with the crimping on the AMP terminals on CCNP DS Breakers and changed the critical characteristics and acceptance criteria respectively to "Pull-test on AMP Faston Flag Terminals" and "Pull each wire attached to a Flag Terminal and ensure wire does not separate from the termination. If wire does pull free, observe replacement of the wire with a known good wire as required." The inspectors noted that this revised criteria to perform an undocumented and uncontrolled wire terminal pull-test also did not meet the requirements of Appendix B. Therefore, any wire terminal lugs that were subject to the pull-test could be considered as functionally indeterminate. The ELP staff indicated to NRC that the activity was performed using "skill of the trade" techniques. However, the NRC inspectors concluded that the specific skill of the trade techniques, such as pull-tests and tug-tests, did not contain appropriate quantitative or qualitative instructions, procedures, or drawings per Criterion V of Appendix B of 10 CFR Part 50. The test criteria lacked specificity. Nonconformance 99901355/2005-201-04 was identified in this area.

On January 24, 2005, STP identified wires from project #1512STP with inadequate terminal crimps and notified ELP. ELP took the following actions:

1. Initiated corrective action in condition reports 2005-420 and 2005-1216.
2. Made a Part 21 notification to NRC.
3. Made a second revision to the critical characteristics and acceptance criteria for AMP Faston flag terminals to include acceptable visual criteria to ensure that the crimps meet manufacturers' guidance.
4. Notified CCNP of the identified deviation, since the DS breakers for DP 04-16 contained similar wires.
5. Determined that CCNP was the only potentially affected customer. Project #1512STP was ELP's first S/R wire dedication project.

On March 10, 2005, ELP rededicated the wires with revised criteria. The inspectors reviewed the revised critical characteristics and acceptance criteria and did not identify any concerns.

The inspectors also reviewed Engineering Operating Instruction (EOI) 17C "Wire Stripping and Crimping Procedures," created on October 10, 2004 following the discovery of the failed terminal crimps. This procedure instructs the user to "Check integrity [of terminal crimps] with a pull test." The inspectors noted that this operating instruction should not be used for qualifying any S/R terminal crimps, as it uses a subjective pull-test as a criterion for acceptance.

c. Conclusions

The inspectors review of ELP's acceptance criteria for AMP terminal crimping identified a concern that was characterized as a nonconformance with the requirements of Criterion V of 10 CFR Part 50, Appendix B. Additionally, as discussed with ELP staff, the NRC inspectors were concerned about the acceptance/rejection criteria that was allowed by ELP regarding control wiring terminal crimps specified in EOI 17C. The inspectors determined that additional specificity would be appropriate to be considered acceptable for use in a S/R application and that ELP's reliance on unspecified "skill of the trade" criteria was inadequate for determining acceptable wire terminal connection.

3.5 ENTRANCE AND EXIT MEETINGS

In the entrance meeting on May 2, 2005, the NRC Inspectors discussed the scope of the inspection, outlined the areas to be inspected, and established interfaces with ELP staff and management. In the exit meeting on May 4, 2005, the NRC Inspectors discussed their concerns and findings with ELP and AREVA management and staff.

4.0 PERSONNEL CONTACTED

Michael F. Kennedy	Manager, ELP Group	ELP	***
Fran I. Starr	Quality Manager	ELP	***
Laurence Patterson	Project Manager	ELP	***
Harry Medsger	Engineering Manager	ELP	***
Mark C. Floyd	LV Project Manager	ELP	
Timothy E. Goodbread	Business Development	ELP	
Tony Zusinas	Project Manager	ELP	
Bill Orga	Manager, Elec. Sys Sales	ELP	
Emily Mayhew	Regional VP Quality	AREVA	****
Gayle Elliott	Regulatory Affairs	AREVA	****
Ronnie Gardner	Dir. Regulatory Affairs	AREVA	****
John S. Alvis	Manager, Quality and Continuous Improvement	AREVA	***

- \* Attended Entrance Meeting
- \*\* Attended Exit Meeting
- \*\*\* Attended Entrance & Exit Meeting
- \*\*\*\* Teleconference for Exit Meeting