

November 30, 2011

Mr. Walter Lee Knox, Quality Assurance Manager  
GERDAU Charlotte Reinforcing Steel  
301 Black Satchel Drive  
Charlotte, NC 28216-2941

SUBJECT: NRC INSPECTION REPORT NO. 99901407/2011-202

Dear Mr. Knox:

From November 14 through November 16, 2011, the U.S. Nuclear Regulatory Commission (NRC) conducted a followup inspection at the GERDAU, Charlotte Reinforcing Steel (hereafter referred as "GERDAU") facility in Charlotte, NC. The purpose of this inspection was to review the implementation of corrective actions described in your November 1, 2011, response letter to the NRC's Notice of Nonconformance (NON) documented in the NRC's Inspection Report (IR) No. 99901407/2011-201, dated October 3, 2011.

Based on the results of this inspection, the NRC inspection team determined that the corrective actions being taken by GERDAU to address the NON were responsive to the NRC's NON documented in IR No. 99901407/2011-201. The NRC may review the implementation of GERDAU's corrective actions during a future NRC staff inspection to determine that full compliance has been achieved and maintained.

Within the scope of this inspection, no violations or nonconformances were identified.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding," of the NRC's "Rules of Practice," the NRC will make a copy of this letter, its enclosures, and your response available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System, accessible at <http://www.nrc.gov/reading-rm/adams.html>.

Sincerely,

/RA/

Juan D.Peralta, Chief  
Quality and Vendor Branch 1  
Division of Construction Inspection  
and Operational Programs  
Office of New Reactors

Docket No. 99901407

Enclosure:

1. Inspection Report No. 99901407/2011-202 and Attachment

Mr. Walter Lee Knox, Quality Assurance Manager  
GERDAU Charlotte Reinforcing Steel  
301 Black Satchel Drive  
Charlotte, NC 28216-2941

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/RA/

Juan D.Peralta, Chief  
Quality and Vendor Branch 1  
Division of Construction Inspection  
and Operational Programs  
Office of New Reactors

Docket No. 99901407

Enclosures:

1. Inspection Report No. 99901407/2011-202 and Attachment

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ADAMS Accession No.: ML11327A039

NRC-001

OFFICE	NRO/DCIP/CQVA	NRO/DCIP/CQVA	NRO/DCIP/CQVA	NRO/DCIP/CQVA
NAME	RPatel	RPrato	FTalbot	JPeralta
DATE	11/29/2011	11/30/2011	11/29/2011	11/30/2011

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**U.S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF NEW REACTORS  
DIVISION OF CONSTRUCTION INSPECTION AND OPERATIONAL PROGRAMS  
VENDOR INSPECTION REPORT**

Docket No.: 99901407

Report No.: 99901407/2011-202

Vendor: GERDAU, Charlotte Reinforcing Steel  
301 Black Satchel Drive  
Charlotte, NC 28216-2941

Vendor Contact: Mr. Walter Lee Knox, Quality Assurance Manager  
lknox@GERDAUamersteel.com  
(704) 391-3811

Nuclear Industry Activities: GERDAU, Charlotte Reinforcing Steel, provides rebar steel for safety-related applications at nuclear fuel facilities and construction projects for AP1000 new reactor applicants (Vogtle and Summer projects).

Inspection Dates: November 14–16, 2011

Inspectors: Raju Patel, Team Leader, NRO/DCIP/CQVA  
Robert Prato, NRO/DCIP/CQVA  
Frank Talbot, NRO/DCIP/CQVA

Approved by: Juan D. Peralta, Chief  
Quality and Vendor Branch 1  
Division of Construction Inspection  
and Operational Programs  
Office of New Reactors

## EXECUTIVE SUMMARY

### GERDAU Charlotte Reinforcing Steel Report No. 99901407/2011-202

The purpose of this inspection was to review GERDAU Charlotte Reinforcing Steel (hereafter referred to as "GERDAU") corrective action activities described in GERDAU's response letter dated November 1, 2011 to the U.S. Nuclear Regulatory Commission's (NRC's) Notice of Nonconformance (NON) documented in Inspection Report (IR) No. 99901407/2011-201, issued on October 3, 2011. The inspection was conducted at the GERDAU Fabrication facility in Charlotte, NC.

The NRC based its inspection on the following:

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

The NRC inspection team implemented Inspection Procedure (IP) 43002, "Routine Inspections of Nuclear Vendors," dated April 25, 2011, and IP 36100, "Inspection of 10 CFR Part 21 and 10 CFR 50.55(e) Programs for Reporting Defects and Noncompliance," dated April 25, 2011, during the conduct of this inspection.

The NRC inspection team conducted a previous inspection at GERDAU's facility in Charlotte, NC in August 2011. During that inspection, the NRC inspection team identified four nonconformances. A summary of each is included below:

- Nonconformance 99901407/2011-201-01 was issued because GERDAU failed to establish procedural guidance for developing procurement documents to ensure adequate quality of safety-related material, equipment, and services. Specifically, GERDAU procurement documents failed to identify applicable inspection and testing records needed from ERICO for subsequent review by GERDAU and did not include any requirements for ERICO's reporting and disposition of nonconformances during fabrication.
- Nonconformance 99901407/2011-201-02 was issued because GERDAU failed to control the issuance of drawings. Specifically, GERDAU failed to stamp customer drawings received from Shaw Nuclear with the date of receipt.
- Nonconformance 99901407/2011-201-03 was issued because GERDAU failed to establish adequate procedural guidance to ensure that Conditions Adverse to Quality (CAQ) are identified in the corrective action program (CAP) and to ensure that significant conditions adverse to quality are not recurring. Specifically, GERDAU failed to do the following:
  - Provide adequate procedural guidance in the quality assurance manual (QAM), to require documentation if an issue is a repeat of a significant condition adverse to quality.

- Provide adequate procedural guidance in the QAM to enter CAQ identified in internal audits into the CAP in accordance with QAM Section 16.1.2.
  - Provide adequate procedural guidance in the QAM for external audit conditions adverse to quality to be entered into the CAP in accordance with QAM Section 16.1.2.
  - Promptly enter Nonconformance Report Shaw 2011-8, for an externally shipped safety-related material, into the CAP in accordance with the fabrication quality assurance manual (FQAM), "Fabricated Products Group, Quality Assurance/Quality Control Program for Fabrication of Steel Products," Section 15.5, and QAM Section 15.3.
  - Identify repetitive deficiencies as a condition (trend) adverse to quality for deficiencies in meeting American Society for Testing and Materials (ASTM) requirements at all the mills supplying safety-related rebar.
- Nonconformance 99901407/2011-201-04 was issued because GERDAU failed to list or document necessary quality requirements for internal audits contained in applicable ASTM and American Concrete Institute (ACI) codes. Specifically, GERDAU's internal audits did not list applicable ASTM and ACI codes in the audit checklist as required by QAM Section 18.8.2.1, and the audits conducted failed to verify that GERDAU Charlotte Mill had failed to specify the test method on the chemical and physical test reports, as required by ASTM A751, "Standard Test Methods, Practices, and Terminology for Chemical Analysis of Steel Products," Section 13, and Mill QAM Section 11.

During the November 2011 inspection, the NRC inspection team reviewed GERDAU's planned corrective actions documented in its CARs to develop new procedures, revise its tier 2 QA procedures, revise GERDAU's corporate and fabrication group QA manuals and perform training of its personnel, and determined that the planned corrective actions were responsive to the NRC's NON documented in IR No. 99901407/2011-201. The NRC may review the implementation of GERDAU's corrective action(s) during a future NRC staff inspection to determine that full compliance has been achieved and maintained.

## REPORT DETAILS

### 1. CORRECTIVE ACTIONS ASSOCIATED WITH NRC INSPECTION REPORT (IR) NO. 99901407/2011-201

#### a. Inspection Scope

The U.S. Nuclear Regulatory Commission (NRC) inspection team reviewed GERDAU Charlotte Reinforcing Steel (hereafter referred to as "GERDAU") corrective action documents, quality assurance (QA) program, procedures and additional documents associated with the corrective actions GERDAU planned to implement in response to the NRC's Nonconformance 99901407/2011-201-01 through Nonconformance 99901407/2011-201-04 documented in the IR No. 99901407/2011-201.

Within the scope of this inspection, the NRC inspection team reviewed the following documents:

- GERDAU Corporate Quality Assurance Manual (CQAM), "Quality Assurance/Control Program for the Fabrication of Steel Products," Revision 26, dated July 15, 2011
- GERDAU Fabrication Quality Assurance Manual (FQAM), "Fabricated Products Group, Quality Assurance/Control Program for the Fabrication of Steel Products," Revision 17, dated July 15, 2011
- GERDAU Corrective Action Report (CAR) CLT-2011-3, dated September 13, 2011
- GERDAU CAR CLT-2011-5, dated September 13, 2011
- GERDAU Procedure 1000138-RP-009-1, "Procedure for the Control of Purchased Items and Services," dated September 14, 2011
- GERDAU Procedure 3112600-RP-008-00, "Nonconforming In-Process Material Disposition Log," dated June 10, 2011
- GERDAU Procedure 1000138-RP-010-00, "Procedure for the Control of Procurement Documents," dated August 29, 2011 GERDAU CAR CLT 2011-6, dated September 13, 2011
- GERDAU Quality Control (QC) Internal Work Procedure (IWP), "Fabrication of Deformed and Plain Billet Steel Bars," Revision 11, dated June 10, 2011
- Shaw Power Group for Vogtle 3 and 4, Supplier/Subcontractor Document Supplier Transmittal No: "T-SHAW-J400A-000043, Job Number 132175," PO No. J400A, Transmittal Subject: "GERDAU Return of Concrete Duct Banks," Shaw Revision C, Vendor Document Number DB-01, Vendor Revision 1, dated October 26, 2011.

- Shaw Power Group PO No: 132175-J400A-0087, Vogtle 3 and 4, GERDAU Drawing DB-01, "Concrete Duct Banks," for Job Number 3112-5678, dated October 20, 2011.
- GERDAU CAR CLT 2011-8, dated September 13, 2011
- GERDAU CAR CLT 2011-9, dated November 15, 2011
- GERDAU Internal Audit Report of GERDAU Jacksonville Mill, dated August 29, 2011
- GERDAU Internal Audit Report of GERDAU Charlotte Mill, dated August 26, 2011
- GERDAU Recurrence Analysis, CAR Deficiency Category
- GERDAU Corrective Action Logs for 2010 and 2011
- GERDAU Training Record of CAR CLT-2011-9, dated November 15, 2011
- GERDAU CAR CLT 2011-7, dated September 13, 2011
- GERDAU Training Record of CAR CLT 2011-7 relating to audit acceptance criteria, dated November 16, 2011
- GERDAU Internal Audit Plan, "Internal Audit of GERDAU St. Paul Mill, St Paul, MN (Audit No. STP Mill-2011)," dated October 25, 2011

b. Observations and Findings

i. Nonconformance 99901407/2011-201-01

During the August 2011, inspection, the NRC inspection team initiated Nonconformance 99901407/2011-201-01 as a result of GERDAU's failure to establish procedural guidance for developing procurement documents to ensure adequate quality of safety-related material, equipment, and services. Specifically, GERDAU's procurement documents failed to identify applicable inspection and testing records needed from ERICO for subsequent review by GERDAU and did not include any requirements for ERICO's reporting and dispositioning of nonconformance during fabrication.

GERDAU initiated CAR CLT 2001-3 to address Nonconformance 99901407/2011-201-01 and to identify actions to prevent recurrence. CAR CLT 2011-3 stated that GERDAU has developed Procedure 1000138-RP-009-1, initiated changes to blanket purchase orders (POs) to ERICO to include applicable technical, quality and regulatory requirements and will revise the CQAM and FQAM to link the procedure for implementation.

The NRC inspection team reviewed the Procedure 1000138-RP-009-1 and noted that it included requirements for (1) accepting purchased material, equipment, and services to ensure that they conform to procurement documents, (2) supplier selection, evaluation, monitoring, receipt inspection, and periodic audits, and (3) POs to impose requirements for suppliers to submit all nonconforming reports to GERDAU including recommended disposition and technical justification, and to submit disposition of “use-as-is or “repair,” for GERDAU’s approval before implementation. The NRC inspection team found GERDAU’s procedure to be acceptable.

The NRC inspection team reviewed GERDAU’s change of blanket POs to ERICO (Blanket PO ERICO 5677) for procurement of couplers and receipt inspection of couplers for the Virgil C. Summer Nuclear Station and Vogtle Electric Generating Plant (hereafter referred to as “Vogtle”) projects. The NRC inspection team noted that the Blanket PO ERICO-5677, Release 1, Revision 1 for couplers included requirements such as (1) Appendix B, “Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants,” to Title 10 of the *Code of Federal Regulations* (10CFR) Part 50, “Domestic Licensing of Production and Utilization Facilities,” (2) 10 CFR Part 21, “Reporting of Defects and Noncompliance,” and (3) American Society of Mechanical Engineers (ASME) NQA-1, “Quality Assurance Requirements for Nuclear Facility Applications,” 1994 Edition, and (4) the right of access to perform inspections, review records, and audit ERICO to verify ERICO’s compliance with NRC requirements.

GERDAU also initiated CAR CLT 2011-5 to address Nonconformance 99901407/2011-201-01 due to lack of procedural guidance for invoking requirements in POs and to identify actions to prevent recurrence. CAR CLT 2011-5 stated that GERDAU (1) has developed Procedure 1000138-RP-010-00 to establish guidance to ensure applicable administrative, technical, quality and regulatory requirements and specifications are invoked in POs, (2) will train GERDAU’s staff to the new procedure, and (3) will revise the GERDAU CQAM and FQAM to link the procedure for implementation.

The NRC inspection team reviewed Procedure 1000138-RP-010-00 and noted that it included guidance for the development of POs including control to ensure that the applicable administrative, technical, quality and regulatory requirements are invoked for suppliers of safety-related materials, equipment and services. Procedure 1000138-RP-010-00 described requirements for POs to include provisions for (1) supplier to have a documented QA program that meets the requirements of Appendix B to 10 CFR Part 50, and ASME NQA-1, 1994 Edition, (2) the supplier to submit its QA manual (QAM) for approval by the QA manager, prior to release of a PO, (3) the supplier to incorporate QA program requirements in sub tier documents, including the QA program, 10 CFR Part 21 and 10 CFR 50.55(e), and (4) the right of access to the supplier’s facilities and records.

In addition, the NRC inspection team reviewed the CQAM and FQAM and discussed with the GERDAU QA Manager the revision status of the CQAM and FQAM and training of GERDAU's staff to the new procedures. The NRC inspection team was informed that the changes to CQAM and FQAM including training of GERDAU's staff to the new procedures have not yet been completed, but in accordance with CARs CLT 2011-3 and CLT 2011-5, GERDAU's scheduled completion date for changes to the CQAM and FQAM including training of GERDAU's staff to new procedures is December 30, 2011.

ii. Nonconformance 99901407/2011-201-02

During the August 2011 inspection, the NRC inspection team initiated Nonconformance 99901407/2011-201-02 as a result of GERDAU's failure to control the issuance of drawings. Specifically, GERDAU failed to stamp customer-supplied drawings received with the date of receipt.

GERDAU initiated CAR CLT 2011-6 to address Nonconformance 99901407/2011-201-02 and to identify actions to prevent recurrence. CAR CLT 2011-6 stated that until the proposed revisions to the FQAM and QC IWP to include guidance for revision control (stamp markings) of customer-supplied drawings are completed and approved, any transmittals accompanying electronic documents will be printed, stamped, dated and maintained in engineering log. Revisions to the FQAM and QC IWP are scheduled to be completed before December 30, 2011.

The NRC inspection team interviewed GERDAU's QA Manager and detailer related to drawing control and reviewed a sample of the SHAW Power Group Supplier/Contractor Document Submittal Transmittal for Vogtle 3 and 4, and the GERDAU drawing DB-01 "Concrete Duct Banks," to ensure that the steps described in CAR CLT 201-6 were effectively implemented. The NRC inspection team verified that the transmittals accompanying electronic documents were printed, stamped, dated, and maintained in the engineering log.

In addition, the NRC inspection team reviewed the FQAM, and discussed with GERDAU's QA Manager the revision status of the QC IWP and FQAM. The NRC inspection team was informed that GERDAU has not yet completed any changes to the FQAM and QC IWP, but that GERDAU is scheduled to revise the QC IWP to include guidance for stamping of the supplier/subcontractor document submittal transmittal for customer-supplied drawings. Specifically, the QC IWP will include revisions to Section 4.0, "Engineering Work Procedures," Subsection C, "Customer Contract Plans," and Step C.2 to add, "electronic stamping" as part of the marking requirement for drawings, and further stated that in accordance with CAR CLT 2011-6, GERDAU's scheduled completion date for changes to the FQAM and QC IWP is December 30, 2011.

iii. Nonconformance 99901407/2011-201-03

During the August 2011 inspection, the NRC inspection team initiated Nonconformance 99901407/2011-201-03 as a result of GERDAU's failure to establish procedural guidance to ensure Conditions Adverse to Quality (CAQs) identified in audits be identified in the corrective action program (CAP), and evaluated for significant trends, and Significant Conditions Adverse to Quality (SCAQs) be identified and documented in the CAP and their causes determined to prevent recurrence. In addition, GERDAU had failed to ensure that nonconformance of external shipped safety-related materials be promptly entered in its CAP, and (2) identify repetitive deficiencies as a condition(trends) adverse to quality for deficiencies in meeting American Society of Testing and Materials (ASTM) at all the mills supplying safety-related rebars.

GERDAU initiated CAR CLT 2011-8 to address Nonconformance 99901407/2011-201-03 and to identify actions to prevent recurrence. CAR CLT 2011-8 stated that GERDAU will establish an electronic system to track audit findings and observations in its corporate business software program "SharePoint," and will use the SharePoint software to create a database to track reported CAQs and SCAQs. In addition, the CAR CLT 2011-8 stated that GERDAU will revise its current nonconformance report form to include CAQs and revise CQAM to require that all CARs entered in the CAP be evaluated for trending of CAQs.

The NRC inspection team reviewed GERDAU's CAR CLT 2011-8, recurrence analysis of CAR deficiencies and the deficiency categories, and corrective action logs for 2010 and 2011. The NRC inspection team found that GERDAU's recurrence analysis of CARs indicated a small increase in mill test reports issues and inadvertent use of engineering department procedures but none of these was of significant trend in CAQs related to the CARs.

Further, the NRC inspection team reviewed GERDAU's CAR CLT 2011-9, which GERDAU had failed to initiate in its CAP during the previous NRC inspection. CAR CLT 2011-9 was initiated to address Shaw nonconformance report (NCR 2011-8) involving lack of heat traceability on a shipped order. In CAR CLT 2011-9, GERDAU stated that (1) heat traceability for materials supplied to Shaw was not lost but were listed on the master bundle sheet for each bundle, (2) there was no CAQ of safety-related material supplied to customer, (3) it had performed failure analysis (Failure Analysis No. 69109 dated July 1, 2011) to determine whether further evaluation would be necessary for 10 CFR Part 21 reportability and, (4) it planned to train QC inspectors to ensure heat numbers are recorded on tags when shear operators tie the tags to the bundle. In addition, the NRC inspection team reviewed a training record for CAR CLT 2011-9, that indicated that three QC inspectors were trained to follow Procedure 3112600-RP-006, "Failure Analysis," Revision 0, dated May 23, 2011 and Procedure 3112600-RP-002, "Procedure for Inspection," Revision 5, dated June 10, 2011, to maintain heat traceability.

The NRC inspection team performed a walkdown of GERDAU's fabrication facility to verify that GERDAU's corrective action implementation was effective. The NRC inspection team interviewed three QC inspectors and witnessed receipt inspection of bars, shearing, bending, and threading operations on three nuclear orders for Shaw. Based on verification of the results of the failure analysis, interviews with GERDAU's staff and witness of operations, the NRC inspection team determined that GERDAU took effective measures to ensure rebars are tagged with identification and heat numbers traceable to a unique bundle number before shipping to the customer.

In addition, the NRC inspection team reviewed the CQAM and discussed with the GERDAU's QA Manager the revision status of the CQAM. The NRC inspection team was informed that the changes to CQAM have not yet been completed, but that GERDAU was in the process of revising the CQAM, Article 16.0, "Corrective Actions," to add Section 16.7, which will address significant CAQs, SCAQs, recurrence analysis, trending analysis and corrective actions to prevent recurrence, and further stated that in accordance with CAR CLT 2011-8, the scheduled completion date for changes to the CQAM including training of GERDAU's staff is December 30, 2011.

iv. Nonconformance 99901407/2011-201-04

During the August 2011, inspection, the NRC inspection team initiated Nonconformance 99901407/2011-201-04 as a result of GERDAU's failure to list or document necessary quality requirements for internal audits contained in applicable American Society for Testing and Materials (ASTM) and American Concrete Institute (ACI) codes. Specifically, GERDAU's internal audits did not list applicable ASTM and ACI codes in the audit checklist, as required by QAM Section 18.8.2.1, and the audits conducted failed to identify that GERDAU Charlotte Mill had failed to specify the test method on chemical and mechanical test reports (CMTRs), as required by ASTM A751, "Standard Test Methods, Practices, and Terminology for Chemical Analysis of Steel Products," Section 13, Charlotte Mill QAM Section 11, Appendix B to 10 CFR Part 50, and ASME NQA-1 Basic Requirement 18.

GERDAU initiated CAR CLT 2011-7, to address the missing references to ASTM A706 "Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement," or ASTM A615, "Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement," and ACI acceptance criteria in audit plans and audit reports. CAR CLT 2011-7 stated, in part, that measures to correct and prevent reoccurrence (1) will include appropriate ASTM and ACI references in the audit notification letter, audit report, and (2) will revise the CQAM, Section 18, to include references to regulatory requirements and codes and standards in the audit plan, checklist, and audit report. CAR CLT 2011-7 also stated that the lead auditors and auditors shall be

trained to the new requirements so that they understand the requirements covered during the performance of audits.”

The NRC inspection team reviewed GERDAU’s internal audit notification letter for “Internal Audit of GERDAU St. Paul Mill, St Paul, MN (Audit No. STP Mill-2011).” The NRC inspection team verified that the applicable documents for this audit identified ASTM A706 and ASTM A615 acceptance criteria. In addition, the NRC inspection team reviewed a training record for GERDAU’s two lead auditors on CAR CLT 2011-7 that indicated that GERDAU’s lead auditors had attended training on how to follow procedures for audit acceptance criteria. The NRC inspection team also reviewed the CQAM but found that changes to this document had not yet been completed and in accordance with CAR CLT 2011-7, the scheduled completion date for changes to the CQAM is December 30, 2011.

In addition, GERDAU had taken exception to a portion of Nonconformance 99901407/2011-201-04 related to an internal audit that had failed to verify that GERDAU Charlotte Mill had failed to specify the test method on the CMTRs, as required by ASTM A751, Section 13, and Charlotte Mill QAM Section 11.

In response to Nonconformance 99901407/2011-201-04, GERDAU stated, in part, that ASTM A751 does not require test methods to be included in CMTRs. The NRC inspection team reviewed the ASTM A751 code requirements, discussed these requirements with code committee members, and concluded that test methods are not required to be specified in CMTRs, therefore, no corrective actions are required to correct the CMTRs in question but to ensure that test methods are included in future CMTRs.

c. Conclusions

The NRC inspection team reviewed GERDAU’s planned corrective actions documented in its CARs to develop new procedures, revise its tier 2 QA procedures, revise GERDAU’s corporate and fabrication group QA manuals and perform training of its personnel, and determined that the planned corrective actions were responsive to the NON documented in IR 99901407/2011-201. The NRC may review the implementation of GERDAU’s corrective action(s) during a future NRC staff inspection to determine that full compliance has been achieved and maintained.

2. ENTRANCE AND EXIT MEETINGS

On November 14, 2011, the NRC inspection team discussed the scope of the inspection with Mr. Walter Lee Knox, GERDAU’s QA Manager, and Mr. Bob Grich, GERDAU’s Director, Nuclear Construction Solutions. On November 16, 2011, the NRC inspection team presented the inspection results and observations during an exit meeting with Mr. Bob Grich, GERDAU’s Director, Nuclear Construction Solutions, and GERDAU’s management. The attachment to this report includes lists entrance and exit meeting attendees.

**ATTACHMENT 1**

1. **ENTRANCE/EXIT MEETING ATTENDEES**

<u>Name</u>	<u>Title</u>	<u>Affiliation</u>	<u>Entrance</u>	<u>Exit</u>	<u>Interviewed</u>
Raju Patel	Operations Engineer- Lead Inspector	U.S. NRC	X	X	
Robert Prato	Sr. Reactor Operations Engineer	U.S. NRC	X	X	
Frank Talbot	Reactor Operations Engineer	U.S. NRC	X	X	
Bob Grich	Director, Nuclear Construction Solutions	GERDAU	X	X	X
Walter Lee Knox	QA Manager/Lead Auditor	GERDAU	X	X	X
Bill Pugh	Manager Regional Sales	GERDAU	X		
David Bowman	Level II QC Inspector	GERDAU			X
Pat Robinson	Level II QC Inspector	GERDAU			X
Melody Dixon	Level I QC Inspector	GERDAU			X
Robert Falby	Senior Detailer	GERDAU			X
Cecil Chambers	Stock Receiver	GERDAU			X
Robert Turner	Shear Operator	GERDAU			X
Dwayne Govan	Bender	GERDAU			X

2. **INSPECTION PROCEDURES USED**

Inspection Procedure 43002, "Routine Inspections of Nuclear Vendors" dated April 25 2011

Inspection Procedure 36100, "Inspection of 10 CFR Part 21 and 50.55(e) Programs for Reporting Defects and Noncompliance" dated April 25, 2011

3. **LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

The U.S. Nuclear Regulatory Commission has previously conducted an inspection at GERDAU's facility in Charlotte, NC, that resulted in four nonconformances.

The status of these nonconformances found during this inspection is as follows:

<u>Item Number</u>	<u>Status</u>	<u>Type</u>	<u>Description</u>
99901407/2011-201-01	Open	NON	10 CFR Part 50, App. B, Criterion IV
99901407/2011-201-02	Open	NON	10 CFR Part 50, App. B, Criterion VI
99901407/2011-201-03	Open	NON	10 CFR Part 50, App. B, Criterion XVI
99901407/2011-201-04	Open	NON	10 CFR Part 50, App. B, Criterion XVIII