Part 21 (PAR) Event # 47923

Rep Org: SHAW GROUP INC.
Supplier: GERDAU LONG STEEL NORTH AMERICA
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State: NC
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NRC Notified by: EDWARD HUBNER
HQ Ops Officer: PETE SNYDER
Emergency Class: NON EMERGENCY
10 CFR Section:
21.21(d)(3)(i) DEFECTS AND NONCOMPLIANCE
Notifications: SCOTT FREEMAN R2DO

THREADING DEVIATIONS ON STEEL REINFORCING BAR SUPPLIED TO CONSTRUCTION PROJECTS

This report was supplied for informational purposes. The threaded ends of some of the reinforcing bar supplied to the V.C. Summer Units 2 and 3 and the Vogtle Units 3 and 4 nuclear projects were found to have threads too long or too short, double threaded areas, voids in threads, or an incorrect thread profile.

"The results of evaluations of this condition as documented by Shaw Nuclear and conducted in accordance with the procedure for performing evaluations required by 10 CFR 21.21, have concluded that the deviations in the rebar would not create a substantial safety hazard, if they were to remain uncorrected. Therefore, it has been determined that these deviations are not reportable under the requirements of 10 CFR Part 21. This information is being provided for industry awareness of the occurrence of these types of deviations in reinforcing steel being provided as a basic component."

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IE19
NRR

10 CFR 21.21

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Shaw® The Shaw Group Inc.®

Edward Hubner
Vice President of New Plant Programs

May 14, 2012

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

SUBJECT: INFORMATIONAL REPORT REGARDING DEVIATIONS IDENTIFIED IN REINFORCING STEEL (REBAR) SUPPLIED TO CONSTRUCTION PROJECTS

The attachment to this letter provides information pertaining to the identification of deviations in the steel reinforcing material (rebar) threading being supplied as basic components for the V. C. Summer Units 2 and 3, and the Vogtle Units 3 and 4, nuclear projects.

The results of evaluations of this condition as documented by Shaw Nuclear and conducted in accordance with the procedure for performing evaluations required by 10 CFR §21.21, have concluded that the deviations in the rebar would not create a substantial safety hazard, if they were to remain uncorrected. Therefore, it has been determined that these deviations are not reportable under the requirements of 10 CFR Part 21. This information is being provided for industry awareness of the occurrence of these types of deviations in reinforcing steel being provided as a basic component.

If you have any questions, please contact Mr. Geoffrey Grant, Vice President of Licensing, Regulatory Affairs and Compliance.

Sincerely,

Edward Hubner
Vice President - New Plant Programs
Shaw Power Group

cc: Regional Administrator, USNRC, Region II
Attachment

INFORMATIONAL REPORT REGARDING DEVIATION IDENTIFIED IN REBAR SUPPLIED TO CONSTRUCTION PROJECTS

(i) Name and address of the individual or individuals informing the Commission.

Edward Hubner, Vice President of New Plant Programs
228 Strawbridge Drive
Moorestown, NJ 08057

(ii) Identification of the facility, the activity, or the basic component supplied for such facility or such activity within the United States which fails to comply or contains a defect.

Virgil C. Summer Nuclear Station, Units 2 and 3
Vogtle, Units 3 and 4

(iii) Identification of the firm constructing the facility or supplying the basic component which fails to comply or contains a defect.

Gerdau Long Steel North America (also known as Gerdau Ameristeel)
4221 W. Boy Scout Blvd., Suite 600
Tampa, FL, USA 33607

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

(iv) Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply.

Examples of the deviations found during installation include: Threads too long or too short, double-threaded, void in thread, and thread profile incorrect.

These types of deviations could result in reduced load capacity of the mechanical couplers.

(v) The date on which the information of such defect or failure to comply was obtained.

Virgil C. Summer Nuclear Station, Units 2 and 3: March 2, 2012
Vogtle, Units 3 and 4: March 15, 2012

(vi) In the case of a basic component which contains a defect or fails to comply, the number and location of these components in use at, supplied for, being supplied for, or may be supplied for, manufactured, or being manufactured for one or more facilities or activities subject to the regulations in this part.

During installation of mechanical couplings on threaded ends of rebar, for Vogtle Unit 3, it was discovered that approximately 0.7% (21 out of 2958) rebar threaded ends were found to be in deviation to the specified requirements for this material.

During installation of mechanical couplings on threaded ends of rebar, for V. C. Summer Unit 2, it was discovered that approximately 1% (the evaluation states that 4 improperly threaded ends were found) rebar threaded ends were found to be in deviation to the specified requirements for this material.

(vii) The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.

The threaded ends with deviations were removed. Shaw – Stone & Webster Construction has completed this action (and continues to take this action as needed when rebar threading deviations are found).

The rebar fabricator, Gerdau Ameristeel, was informed of the deviations. Shaw – Stone & Webster Construction has completed this action.

Gerdau fabrication shops were informed to begin enhanced checking with end gages (by threading machine operators) on bars until further notice. Gerdau Ameristeel completed this action on April 10, 2012.

Shaw field Quality Control (QC) personnel were instructed to continue with 100% pre-installation inspection until further notice. Rebar deviations found are marked with a red QC HOLD tag and quarantined in a segregated area on site to prevent installation.

(viii) Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.

100% pre-installation inspection of rebar threaded ends is recommended.

(ix) In the case of an early site permit, the entities to whom an early site permit was transferred.

Not applicable.