Part 21 (PAR)

Event #

52236

Rep Org: GREENBERRY INDUSTRIAL Supplier: GREENBERRY INDUSTRIAL Notification Date / Time: 09/12/2016 18:03

(EDT) (PDT)

Event Date / Time: 05/06/2016

Last Modification: 09/12/2016

Region: 4

City: VANCOUVER

Docket #: **Agreement State:**

License #:

Yes

County:

State: WA

Notifications: STEVE ROSE

R2DO

NRC Notified by: JASON POND **HQ Ops Officer:** STEVEN VITTO

RAY AZUA

R4DO

Emergency Class: NON EMERGENCY

PART 21/50.55 REACTORS

EMAIL

10 CFR Section:

21.21(d)(3)(i)

DEFECTS AND NONCOMPLIANCE

PART 21 FINAL REPORT- DEVIATIONS ON STRUCTURAL MODULE VOGTLE UNIT 3 AP1000 PROJECT

The following was received via fax and is summarized below:

"The attachment to this letter provides a report in accordance with 10 CFR 21.21 pertaining to deviations and potential defects in structural module CA33 for the Vogtle Unit 3 AP 1000® project. This issue was previously described in interim reports submitted by Greenberry in letters dated June 24, 2016 (NRC Log No. 2016-36-00, Accession No. ML16188A160) and July 26, 2016 (NRC Log No. 2016-36-01, Accession No. ML16229A180).

"During fabrication of other submodules for CA35, it was discovered by Greenberry personnel that some weld cracking had occurred. During metallurgical examination, a second condition was discovered of presence of a heat affected zone and cracks in plate edges induced by plasma cutting in an area not to be welded. In order to evaluate the extent of the condition, Greenberry Industrial requested that the purchaser, WECTEC LLC, return the CA33 submodules that had already been delivered. The returned components have been inspected and it was determined that weld deviations were also present in the previously delivered submodules. Due to the use of the same plasma cutting method on CA33, it is expected that the plate edges on the returned CA33 modules also have cracks on the unwelded edges from the plasma cutting. The plasma cutting induced cracks on subsequently welded edges are typically mitigated by the welding processes for the affected edges. The cracks remaining in unwelded edges may not be a detrimental condition. This will be determined as part of further analysis of the identified conditions.

"The affected material with weld defects has been returned by the purchaser, WECTEC LLC, to the supplier, Greenberry Industrial. Identification and resolution of other affected modules due to plate edge cracking will be performed when the technical evaluation of that condition is complete. The plate edge cracking may not be detrimental to the component performance.

"If you have any questions pertaining to this information, please contact Mark Stapleton, Nuclear Operations Manager, at 360-567-0006 Ext. 1018."

10 CFR 21.21

September 12, 2016

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

SUBJECT: 10 CFR PART 21 REPORT REGARDING DEVIATIONS ON STRUCTURAL

MODULE CA33 FOR VOGTLE UNIT 3 AP1000® PROJECT

The attachment to this letter provides a report in accordance with 10 CFR 21.21 pertaining to deviations and potential defects in structural module CA33 for the Vogtle Unit 3 AP1000® project. This issue was previously described in an interim reports submitted by Greenberry in a letters dated June 24, 2016 (NRC Log No. 2016-36-00, Accession No. ML16188A160) and July 26, 2016 (NRC Log No. 2016-36-01, Accession No. ML16229A180).

If you have any questions pertaining to this information, please contact Mark Stapleton, Nuclear Operations Manager, at 360-567-0006 Ext. 1018.

Sincerely,

Jason Pond

Greenberry Industrial

cc: Regional Administrator, USNRC, Region II

Attachmen

Attachment to Letter Dated September 12th, 2016

10 CFR PART 21 REPORT REGARDING DEVIATIONS ON STRUCTURAL MODULE CA33 FOR VOGILE UNIT 3 AP1000® PROJECT

This report is being provided in accordance with 10 CFR 21.21.

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

Jason Pond President Greenberry Industrial 600 SE Maritime Ave., Stc. 190 Vancouver, WA 98661

(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.

The basic component being supplied is a structural module, called CA33, for containment floor sections for the Vogtle Unit 3 AP1000® project. This floor module supports required equipment and expected floor loading to maintain integrity of the associated and nearby structures inside the containment building.

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

The Vogtle Unit 3 CA33 structural module is being supplied by Greenberry Industrial, 600 SE Maritime Ave., Ste. 190, Vancouver, WA 98661.

(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.

During fabrication of other submodules for CA35, it was discovered by Greenberry personnel that some weld cracking had occurred. During metallurgical examination, a second condition was discovered of presence of a heat affected zone and cracks in plate edges induced by plasma cutting in an area not to be welded. In order to evaluate the extent of the condition, Greenberry Industrial requested that the purchaser, WECTEC LLC, return the CA33 submodules that had already been delivered. The returned components have been inspected and it was determined that weld deviations were also present in the previously delivered submodules. Due to the use of the same plasma-cutting method on CA33, it is expected that the plate edges on the returned CA33 modules also have cracks on the unwelded edges from the plasma cutting. The plasma-cutting induced cracks on subsequently welded edges are typically mitigated by the welding processes for the affected edges. The cracks remaining in unwelded edges may not be a detrimental condition. This will be determined as part of further analysis of the identified conditions.

It has been conservatively judged that the welding and the plasma-cutter-induced edge micro-cracking could result in conditions that could cause the module to be unable to perform its structural design function. Therefore, it is conservatively concluded that these deviations could

Attachment to Letter Dated September 12th, 2016

result in a defect. As previously stated, the affected module (CA33) has been returned to Greenberry.

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

The issue with welding was discovered May 6, 2016. Plate edge cracks were found during subsequent examination and QA program issues subject to reporting under 10CFR50.55(e) became evident as a result of causal analysis and purchaser interface. The evaluation of the conditions was completed on September 7, 2016, and it was conservatively concluded that a defect could have been created. The Greenberry Industrial responsible officer for Part 21 was informed on September 7, 2016.

(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.

CA33 module consists of 5 submodules that had been delivered. Upon notification and at the request of Greenberry the submodules were returned to Greenberry. The extent of condition for plasma-cutting induced edge cracks is still being determined and as previously stated this condition may not be detrimental to the component performance. Identification and resolution of other affected modules due to plate edge cracking will be performed when the technical evaluation of that condition is complete.

(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 affected material with weld defects has been returned by the purchaser, WECTEC LLC, to the supplier, Greenberry Industrial. Identification and resolution of other affected modules due to plate edge cracking will be performed when the technical evaluation of that condition is complete. The plate edge cracking may not be detrimental to the component performance.

(ix) 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.

The weld crack condition was discovered by Greenberry, prior to installation of the affected components and the components have been returned to Greenberry. The plate edge cracks were subsequently observed during evaluation of the weld cracks. The QA program issues became evident when evaluating the cause of these issues. Greenberry intends to continue working with the purchaser to ensure that the conditions are corrected.

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

Not applicable.