REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8102170368 DOC.DATE: 81/02/05 NOTARIZED: NO DOCKET #
FACIL:50-528 Palo Verde Nuclear Station, Unit 1, Arizona Public 05000528
50-529 Palo Verde Nuclear Station, Unit 2, Arizona Public 05000529
50-530 Palo Verde Nuclear Station, Unit #, Arizona Public 05000530
AUTH.NAME AUTHOR AFFILIATION
VAN BRUNT,E.E. Arizona Public Service Co.
RECIP.NAME RECIPIENT AFFILIATION
SPENCER,G.S. Region 5, San Francisco, Reactor Construction & Engineer

SUBJECT: Interim deficiency rept re TX Bolt Co matl not meeting ASME Section III requirements,initially reported on 810109. Actions to resolve condition are being implemented.Plan for boltin matl is underway.Final rept by 811101.

DISTRIBUTION CODE: B019S COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 6
TITLE: Construction Deficiency Report (10CFR50.55E)

NOTES:Standardized Plant. 05000528
Standardized Plant. 05000529
Standardized Plant. 05000530

	RECIPIENT ID CODE/NAME		COPIES LTTR	ENCL	RECIPIENT ID CODE/NAME		COPIES LTTR	ENCL
ACTION:	A/D LICENSNG	04	1	1	MIRAGLIA,F.	05	1	1
	LEE,J.	06	1	1	KERRIGAN,J.	07	1	1
INTERNAL:	AD/RCI/IE	17	1	1	ASLBP/J.HARD		1	1
	D/DIR HUM FACT	15	1	1	DIR,DIV OF LIC		1	1
	EDO & STAFF	19	1	1	EQUIP QUAL BR	11	1	1
	RYD/GEO BR	22	1	1	I&E	09	1	1
	LIC QUAL BR	12	1	1	MPA	20	1	1
	NRC PDR	02	1	1	OELD	21	1	1
	PROC/TST REV	13	1	1	QA BR	14	1	1
	REG FILE	01	1	1	RUTHERFORD,W.	IE	1	1
	STANDRDS DEV	21	1	1				
EXTERNAL:	ACRS	16	16	16	LPDR	03	1	1
	NSIC	08	1	1				

FEB 19 1981

TOTAL NUMBER OF COPIES REQUIRED: LTTR 39 ENCL 39

50-528

ARIZONA PUBLIC SERVICE COMPANY

P. O. BOX 21666 · PHOENIX, ARIZONA 85036

February 5, 1981
ANPP-17236-BSK/JAR

U. S. Nuclear Regulatory Commission
Region V
Walnut Creek Plaza - Suite 202
1990 North California Boulevard
Walnut Creek, California 94596

Attention: Mr. G. S. Spencer, Chief
Reactor Construction and
Engineering Support Branch

Subject: Interim Report
A 50.55(e) Reportable Deficiency Relating to Texas Bolt
Material Not Meeting ASME Section III
File: 81-019-026; D.4.33.2

Reference: Telephone Conversation between J. Eckhardt and B. S. Kaplan
on January 9, 1981 (DER 80-42)

Dear Sir:

The NRC was notified of a reportable deficiency in the referenced telephone conversation. At that time, it was estimated that a final report would be available within thirty (30) days.

Due to the extensive investigation and evaluation required, an interim report is attached. It is now expected that this information will be finalized by November 1, 1981, at which time a complete report will be submitted.

Very truly yours,

E. E. Van Brunt

E. E. Van Brunt, Jr.
APS Vice President
Nuclear Projects
ANPP Project Director

EEVBJr/BSK:skc

Attachment

B019
S1/1

8102170368


RECEIVED
FEB 13 1984
COMMITTEE ON NATURAL RESOURCES

cc: Victor Stello, Jr., Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

A. C. Gehr
Snell & Wilmer

R. L. Robb
D. B. Fasnacht
W. E. Ide
J. M. Allen
A. C. Rogers
J. A. Brand
W. H. Wilson
W. G. Bingham
W. J. Stubblefield
R. L. Patterson
R. M. Grant
R. W. Welcher
D. R. Hawkinson

INTERIM REPORT

REPORTABLE DEFICIENCY

ARIZONA PUBLIC SERVICE COMPANY (APS)

PVNGS UNITS #1, #2 and #3

I. Potential Problem

As a result of a Bechtel Supplier Quality audit of ASME III bolt suppliers, Texas Bolt Company was suspended from the Bechtel Corporate Evaluated Suppliers List for supplying NCA 3800 bolting material which is not size excluded by Code.

- Texas Bolt has failed to comply with the rules governing a Material Supplier (M/S) issuing a CMTR for material from a Material Manufacturer (M/M).
- Code bolting material has been source accepted/ shipped/installed with documentation not meeting ASME Section III requirements.

To evaluate the condition, Texas Bolt was visited by Bechtel to review how Texas Bolt purchases and certifies materials.

Texas Bolt buys heats of stock material and establishes heat/lot traceability for the stock material. The stock material can be either coils of rods or bundles of bar. The coils are always from one heat. Texas Bolt does not weld rods together to make up a longer coil. The bars that are steel strapped together are also from one heat.

For large orders (500 or more pieces), all bolts and studs 1¼" in diameter or smaller are made from coiled rod. All bolts and studs greater than 1¼" in diameter and small orders of any size are made from straight bar. All nuts are made from straight bar. The material test report from the stock material source states whether the product is coiled rod or straight bars, the melting practices and a chemical analysis of samples taken from the molten metal (Heat Analysis).

Each stud, bolt or nut ordered by Bechtel for ASME III applications is metal stamped by Texas Bolt with a traceability code. The traceability code is noted on the Certified Materials Test Report (CMTR) prepared by Texas Bolt, but the produce form of the starting material is not noted on the CMTR. To determine if an item was made from a coil or straight bar, it is necessary to obtain the traceability code from the item, obtain the heat number from the Texas Bolt CMTR, and then determine the product form from the material manufacturer's material test report. The exact number of bars in a bundle is not recorded nor is there traceability between an item and a specific bar in a bundle.

All heat treating and mechanical testing is performed by Texas Bolt. The types and number of mechanical tests are performed as required by ASME II and III. As a minimum, the mechanical tests are done on each heat/lot of material. Prior to February, 1978, the chemical analysis (Heat Analysis) provided by the stock material source was put on the Texas Bolt CMTR. After February 1, 1978, Texas Bolt has been using a Baird-Atomic emission spectrograph to do an additional chemical analysis which the Code calls a product analysis. The results of the chemical analysis performed by Texas Bolt is put on the Texas Bolt CMTR. Between February 1, 1978 and December 11, 1980, Texas Bolt did one chemical analysis on each coil of rod and on one bar from each individually strapped bundle of bars. Since December 11, 1980, the number of chemical analyses was increased so that every bar in a bundle is chemically analyzed.

Starting with the Winter 1975 Addenda of ASME III, NA-3767.4(e) (and subsequently, NCA-3867.4(e)), Materials Manufacturers (M/M) are allowed to use stock material. However, to do so the M/M is required to do a chemical analysis on each piece of stock material. For Texas Bolt, this means a chemical analysis on each coil and on each bar in a bundle. Texas Bolt has only fully met ASME III, NCA-3867.4(e) since December 11, 1980. Therefore, the majority of bolting material made by Texas Bolt cannot be used in Code construction unless further steps are taken.

II. Approach To and Status Of Proposed Resolution

The following proposed steps can be used to make the Texas Bolt material, made prior to December 11, 1980, acceptable to ASME. However, since the PVNGS project uses the Texas Bolt products for safety-related and non-safety-related applications, a more simplified identification and verification plan may possibly be implemented to achieve the same results.

Bolting Made Prior to February 1, 1978

1. Items from Coiled Rod

   It is necessary to perform a chemical analysis on one item representing each heat of questionable bolting and recertify the CMTR. To use this alternate, Bechtel will have to identify all the applicable bolting that fits into the category of "Made Prior to February 1, 1978". The bolting material identified will be listed by the traceability code stamped on the bolting. Texas Bolt will determine what bolting was made from bar and from coils. The list of traceability codes and product form will be returned to Bechtel. For the bolting made from coil, Bechtel will obtain one sample (a bolt, nut or stud) representing each traceability code. The samples will be returned

to Texas Bolt. Texas Bolt will perform a chemical analysis on each sample and recertify the bolting material with a new CMTR.

2. Items from Straight Bar

Use Code Case N-242-1. If it is more convenient, bolting made from both coiled rod and bar can be handled using Code Case N-242-1. It is necessary for Bechtel, the N-Type Certificate Holder, to certify that the material conforms to the applicable SA, SB or SFA specification, that the material conforms to NX-2000 with the exception of NX-2610, that the material is accompanied by a properly executed CMTR and that the client, jurisdiction and regulatory agency concur with the use of Code Case N-242-1 for the intended application.

Bolting Made Between February 1, 1978 and April 10, 1980

1. Items from Coiled Rod

All items made from coiled rod have the required chemical analysis, thus complying with ASME III, NCA-3867.4(e).

2. Items from Straight Bar

Use Code Case N-242-1.

Bolting Made Between April 10, 1980 and December 11, 1980

1. Items from Coiled Rod

All items made from coiled rod have the required chemical analysis, thus complying with ASME III, NCA-3867.4(e).

2. Items from Straight Bar

Currently, there are no provisions in the Code for accepting material ordered after April 10, 1980. Code Case N-242-1 cannot be used on material ordered after April 10, 1980. However, there is a proposed Code Case going through the approval cycle which will allow this bolting to be treated in the same manner as Code Case N-242-1.

It is expected that this new Code Case will be formally approved in about six weeks. This new Code Case was written especially to cover bolting material not in compliance with ASME III, NCA-3800. The new case is very similar to Case N-242-1. The difference between the two is that N-242-1 can be applied to any material

procured by the N-Type Certificate Holder before April 10, 1980, while the new case applies to bolting material procured at any time. The new case has no time limit, so the Certificate Holder may use it to accept bolting material procured after April 10, 1980.

III. Projected Completion of Corrective Action and Submittal Date of the Final Report

The steps necessary to resolve this condition as outlined in Section II are being implemented. The facts concerning this situation do not justify placing a project hold or restrictions on the continued use of Texas Bolt products.

The plan to have the bolting material acceptable to ASME is expected to be completed by October 15, 1981. A final report is forecast to be completed by November 1, 1981.