

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
630 Power Building

AUG 31 1978

RECEIVED DISTRIBUTION
SERVICES UNIT

Mr. James P. O'Reilly, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region II - Suite 3100
101 Marietta Street
Atlanta, Georgia 30303

50-390
391

Dear Mr. O'Reilly:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - REPORTABLE DEFICIENCY - CHICAGO BRIDGE
AND IRON SUPPORTS FOR CONTAINMENT SPRAY SYSTEM AND RESIDUAL HEAT REMOVAL SPRAY
SYSTEM PIPING - MATERIAL CERTIFICATION, INSTALLATION AND INSPECTION DOCUMENTATION

The subject deficiency was initially reported to NRC-OIE Region II, Inspector
V. L. Brownlee, on April 27, 1977, in accordance with 10 CFR 50.55(e) and our
first interim report was transmitted to your office on May 27, 1977. A final
report was submitted on October 12, 1977. Enclosed is a revised final report
with additional information on corrective action.

If you have any questions concerning this matter, please get in touch with
M. R. Wisenburg at FTS 854-2581.

Very truly yours,

J. E. Gilleland
Assistant Manager of Power

Enclosure

cc: Office of Inspection and Enforcement (Enclosure)
U.S. Nuclear Regulatory Commission
Washington, DC 20555

782490038

B019
5
1/1

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
REPORTABLE DEFICIENCY
CHICAGO BRIDGE AND IRON COMPANY
CBI SUPPORTS FOR CONTAINMENT SPRAY SYSTEM
AND RESIDUAL HEAT REMOVAL SPRAY SYSTEM PIPING
MATERIAL CERTIFICATION, INSTALLATION, AND INSPECTION DOCUMENTATION
REVISED FINAL REPORT

Introduction

The Watts Bar CONST Quality Assurance Unit audited Chicago Bridge and Iron's (CBI) field work and TVA's surveillance of CBI activities from February 14 to March 14, 1977. During this audit, a deficiency was discovered in the installation and inspection documentation of the containment spray header supports. These supports attach to the residual heat removal and containment spray system piping which are safety-related systems. CBI drawings 215 through 218 and 430 through 436 provide the detail designs of the spray header supports. This deficiency was forwarded to the Division of Engineering Design (EN DES) for resolution.

Description of Condition

10 CFR 50, Appendix B, Criterion X, Inspection, required that a program for inspection of activities affecting quality shall be established and executed . . . to verify conformance with the documented instructions, procedures, and drawings for accomplishing the activities.

Also, Criterion XVII, Quality Assurance Records, requires that sufficient records shall be maintained to furnish evidence of activities affecting quality. The records shall include at least . . . the results of reviews, inspections Inspection and test records shall, as a minimum, identify the inspector or data recorder Records shall be identifiable and retrievable

The containment spray header supports, which attach to the safety-related containment spray system and residual heat removal spray system, were found to lack documentation to verify material specifications and to provide results of reviews and inspections. The main fabrication of the supports had been in CBI's Birmingham shops with only minor work performed in the field.

Safety Implication

All the necessary documentation of the components has been found and traceability of material has been established. The documentation shows that all procedures and practices required in the fabrication of these safety-related components have been followed and they are fully qualified to perform their design function. Therefore, had the nonconformance gone uncorrected,

the safety of the plant would not have been adversely affected at any time during its lifetime.

Corrective Action

TVA requested CBI to certify that the materials used meet or exceed the requirements of SA516, Grade 70, A36, A106 Grade B or A307 Grade B. TVA also requested that CBI provide documentation that qualified welders performed the welding, qualified inspectors inspected the welding, and visual examinations were performed on the welds.

CBI transmitted to TVA Exhibits I and II which provide certification of the material specifications and which provide documentation of the traceability of the material to CBI's warehouse. Certified mill test reports or certificates of compliance have been supplied to the warehouse and this is the same level of traceability that TVA provides on TVA-built supports. We are including representative samples of final bill of materials supplied by CBI.

Exhibit II also states that qualified welders were used, qualified inspectors inspected the welding, and the welds were visually examined.

CBI also transmitted Exhibit III which details the shop fabrication and handling procedures used in the Birmingham shop. These processing procedures illustrate the control of material that the shop provides.

TVA became concerned that the hydrogen collection pipe supports had been built similar to the RHR and CSS supports. CBI stated in Exhibit IV that the hydrogen pipe supports were included in the previous documentation of Exhibits I, II, and III.

TVA also was concerned that the field welding and inspection may not have been included in CBI's previous certifications. CBI then transmitted to TVA Exhibit V which certifies the field installation, welding, and inspection.

Action Taken to Prevent Recurrence

In future specification, TVA will include pipe supports which attach to safety-related systems in a classification such that material traceability to the warehouse and fabrication, installation, and inspection documentation will be provided. If other pipe supports are required under this contract, the design specifications WBNP-DS-1705-1440 will be revised.

EXHIBIT I



August 29, 1977

Mr. R. G. Domer, W9 D224
Chief Civil Engineer
Civil Engineering Branch
TENNESSEE VALLEY AUTHORITY
400 Commerce Avenue
Knoxville, Tennessee 37902

TVA CONTRACT 73C61-75320
CONTAINMENT VESSEL FOR
WATTS BAR NUCLEAR PLANT
UNIT I AND II
CBI CONTRACT 72-4333/34U
LETTER NO. 1.1P - 192

Dear Mr. Domer:

Mr. Bob Gilmore called Friday, August 26, 1977 and requested more clarification on the pipe support material problem, which I have attached.

Mr. Earl George, our Birmingham Purchasing Manager, has confirmed that all A36, A283 and A516 material has CTR's.

Call if we can be of further assistance.

Very truly yours,

CHICAGO BRIDGE & IRON COMPANY

JCB for
Roy Gerety
ROY GERETY
PROJECT MANAGER

RG:mrc

cc: Mr. W. A. English-TVA-Knoxville, Tennessee
Mr. J. M. Anderson-TVA-Chattanooga, Tennessee
Mr. A. J. Goodwin-TVA-Fairfield, Alabama

August 26, 1977

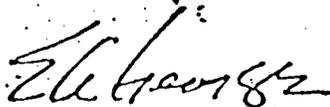
R. J. Gerety - Project Manager
Birmingham Construction

Re: PIPE SUPPORTS
CBI CONTRACTS 72-4333/34

We have reviewed further these bills of material - bill sheets 402 thru 412, 348 thru 353, 383 thru 385 and we state that the A36 Str. A283 and A516 plate was purchased and supplied to the specified specifications.

CBI requires that CTR's be furnished on all A36, A283 and A516 material purchases. These CTR's are verified and are kept on file; however, since this material did not require traceability, we were not notified of the specific heats used and cannot furnish CTR's to the exact heat numbers even though they are on file.

In addition the A53 and A106 pipe was supplied with CTR's and they are on file. Also, the fasteners were supplied with certificates of compliance which we have on file.



E. A. George
Birmingham Purchasing

EXHIBIT II

N35-1

Chicago Bridge & Iron Company

p o box 277
Birmingham, Alabama 35201

CEB '77 0607 50

lwx 810 733 3654
telephone 205. 595 1191



June 1, 1977

Mr. R. G. Domer, W9 D224
Chief Civil Engineer
Civil Engineering Branch
TENNESSEE VALLEY AUTHORITY
400 Commerce Avenue
Knoxville, Tennessee 37902

TVA CONTRACT 73C61-75320
CONTAINMENT VESSEL FOR
WATTS BAR NUCLEAR PLANT
UNIT I AND II
CBI CONTRACTS 72-4333/34U
LETTER NO. 1.1P - 173

Dear Mr. Domer:

Mr. J. Marcel Anderson of TVA Purchasing requested assistance from CBI to help resolve a recent audit problem concerning the pipe support documentation in his letter dated April 29, 1977.

After discussing your letter with various CBI departments, we can offer the following information:

- A. Attached is a Notarized letter from our Purchasing Department clarifying the material purchased and used did meet the specifications. Copies of the Final Bill of Materials listed in the letter from Purchasing are also attached. CBI uses the Bill Sheets for purchasing material and routing the material through our Manufacturing Department. Please note that all the material has a specification reference on each Bill Sheet.
- B. To the best of my knowledge, qualified welders performed the welding, qualified inspectors inspected the welding and visually examinations were performed on the welds. This statement is supported by the following:
 - 1. It is standard CBI practice to perform all Nuclear welding with qualified welders.

N35-1



CEB '77 0607 50

fax 810 733 3654
telephone 205. 595 1191

June 1, 1977

Mr. R. G. Domer, W9 D224
Chief Civil Engineer
Civil Engineering Branch
TENNESSEE VALLEY AUTHORITY
400 Commerce Avenue
Knoxville, Tennessee 37902

TVA CONTRACT 73C61-75320
CONTAINMENT VESSEL FOR
WATTS BAR NUCLEAR PLANT
UNIT I AND II
CBI CONTRACTS 72-4333/34U
LETTER NO. 1.1P - 173

Dear Mr. Domer:

Mr. J. Marcel Anderson of TVA Purchasing requested assistance from CBI to help resolve a recent audit problem concerning the pipe support documentation in his letter dated April 29, 1977.

After discussing your letter with various CBI departments, we can offer the following information:

- A. Attached is a Notarized letter from our Purchasing Department clarifying the material purchased and used did meet the specifications. Copies of the Final Bill of Materials listed in the letter from Purchasing are also attached. CBI uses the Bill Sheets for purchasing material and routing the material through our Manufacturing Department. Please note that all the material has a specification reference on each Bill Sheet.
- B. To the best of my knowledge, qualified welders performed the welding, qualified inspectors inspected the welding and visually examinations were performed on the welds. This statement is supported by the following:
 - 1. It is standard CBI practice to perform all Nuclear welding with qualified welders.

Mr. R. G. Domer, W9 D224
TENNESSEE VALLEY AUTHORITY
Page -2- 1.1P - 173
June 1, 1977

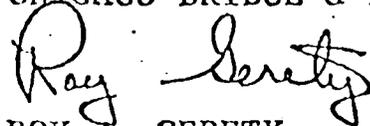
2. CBI qualified and certified capable inspectors were assigned to all areas where welds were being made.
3. Welding was under the direction of Welding QA Supervisors who are knowledgeable in visually examination requirements.

At this time we do not plan to revise the QA Manual since there are already the provisions in the QA Manual to meet the above requirements of documentation as specified by TVA.

Should you have any questions or need further assistance, please contact us in Birmingham.

Sincerely,

CHICAGO BRIDGE & IRON COMPANY



ROY J. GERETY
PROJECT MANAGER

RJG:mrc

cc: Mr. W. A. English-TVA-Knoxville, Tennessee
Mr. J. M. Anderson-TVA-Chattanooga, Tennessee
Mr. A. J. Goodwin-TVA-Fairfield, Alabama

June 1, 1977

R. J. Gerety - Project Manager
Birmingham Construction

Re: Pipe Supports
CBI Contracts 72-4333/34

We have your letter dated May 5, 1977 regarding traceability of the pipe support material furnished on the referenced contracts.

We have reviewed the following related bills of material - Bill sheets 402 thru 412, 348 thru 353, 383 thru 385 and bill sheet 399, and we certify that to the best of our knowledge the plate and structural material specified was actually used.

Edwina Strickland
LS

Edwina Strickland
Buyer

is

Subscribed and sworn to before me this

1st day of June, 1977

Walter R. [Signature]
Notary Public

FINAL BILL OF MATERIAL

Line No.	Ship Pt	Mark	Assm Pt	Description	Length		Spec	ID	Pk & Pt Code	Est'd Wt	No Part W/O	Pcs	Order or Reserve Routing
					Ft	In							
21				CONT FROM B.S 348									
22													
23		215-7	3	R-6 x 1/2 FIN	1	8	SA 516 GR 70	D	- 3360	54			
24				(9w BS. 348 LINE 7)									
25		215-8	3	R-6 x 1/2 FIN	1	2 3/4	SA 516 GR 70	D	- 3360	39			
26				(9w BS 348 LINE 7)									
27		215-9	3	R-6 x 1/2 FIN	1	3 13/16	SA 516 GR 70	D	- 3360	42			
28				(9w BS 348 LINE 7)									
29		215-10	3	R-6 x 1/2 FIN	0	10 13/16	SA 516 GR 70	D	- 3360	21			
30				(9w B.S. 348 LINE 7)									
31		215-11	6	R-6 x 1/2 (SK)	2	11 5/8	SA 516 GR 70	C	- 3360	90			
32				(9w B.S. 348 LINE 7)									
33		215-12	6	R-6 x 1/2	0	7 1/8	SA 516 GR 70	D	- 3360	35			
34				(9w B.S 348 LINE 7)									
35		215-13	3	R-6 x 1/2 (SK)	2	6 1/2	SA 516 GR 70	C	- 3360	78			
36				(9w B.S. 348 LINE 7)									
37													
38													
39													

Eng Assigned DBE	Made By GER	Chkd By JMC	By Chkd Date Line		Control 72-4
Fabricated At	Date	Date			Line

EXHIBIT III

Mr. R. G. Damer, W9 D224
TENNESSEE VALLEY AUTHORITY
Page 2
August 16, 1977
1.1P - 191

There is nothing done in our Birmingham Manufacturing Shop verbally. Every item that goes through the shop for a contract has to have a Work Order made out even if it is not under a quality assurance program.

Example No. 1 is a typical Work Order made out for Pc. Mk. 215-1, shown on CBI Drawing 215, Bill and Material Sheet 348, Line 4. This information was attached to my letter No. 1.1P - 173, dated June 1, 1977. Pc. Mk. 215-1 is classified as a "C" type material. On Example No. 1, which is attached for your use, is a typical Work Order made out for Pc. Mk. 215-1. The steps to fabricate this particular item are numbered 1 through 8 starting with delivery from the yard ending up with shipping it. Please note that on Step No. 3, there is a Daily Fab Sheet required. The Storage Yard supervisor will take the Work Order and deliver the material from the Storage Yard to the Lay Out section of the shop, which would be Step No. 2. The Yard Supervisor uses the information shown down at the bottom of the Work Order which states there is one piece of plate 100" X 1/2" thick X 19'-9" long. This item is marked as 215-1. Since the material does have a special mark, the item would be covered by a Material & Receiving Inspection Report which they also have in their possession.

The next step is for the Lay Out crew to lay out the plate according to the drawings and cutting sketch.

The third step is for the plate to be moved to the Burning Shop where it is fabricated according to the drawings and signed off on the Daily Fab Report.

The fourth step is to burn any bevel on edges that require them.

The fifth step is have it taken to the Weld Shop which in this case is Weld Shop No. 3, where the welding is performed according to the correct procedures and by qualified welders.

Step No.'s 6, 7, and 8 cover the sandblasting, painting and final inspection and shipping.

Example No. 2 is a Work Order for Pc. Mk. No. 215-2 of the same bill sheet discussed above. This item is a "D" type material and does not require the documentation of Example No. 1. The material would come from our A 516 Grade 70 stock as shown from the check at the bottom of the Work Order. This material would not have a Metal & Receiving Inspection Report, however it would have been checked when it was received to make sure that it was in fact SA 516 Grade 70 and stacked with that type of material.

1135-
1135
August 16, 1977

Mr. R. G. Domer, W9 D224
Chief Civil Engineer
Civil Engineering Branch
TENNESSEE VALLEY AUTHORITY
400 Commerce Avenue
Knoxville, Tennessee 37902

TVA CONTRACT 73C61-75320
CONTAINMENT VESSEL FOR
WATTS BAR NUCLEAR PLANT
UNIT I AND II
CBI CONTRACTS 72-4333/34U
LETTER NO. 1.1P - 191

Dear Mr. Domer:

Mr. Bob Gilmore of your department has requested additional information to help resolve the material problem you have on the pipe supports and pipe hangers.

The Birmingham Manufacturing facility has a Metal Receiving Yard where all material is received, checked and stored until required for fabrication of that particular contract. The supervisor responsible for receiving, storing and distributing the material for fabrication is fully qualified to handle QA material. Also, the two foreman working in the Receiving Yard are qualified to receive and store QA material.

The Storage Yard itself is set up so that the material is separated according to size and the type of material. For instance, the SA 516 Grade 70 material is physically separated from the 283-C material by quite some distance.

If the material ordered and received is under an "A" type of identification then the supervisor will fill out a Metal Receiving Inspection Report. After the material has been inspected the Metal Receiving Inspection Report is returned to the QA Department and further checks are made to insure that the Heat Slab No. and other information on the Material Receiving & Inspection Report agrees with the Purchase Order and information received from the supplier. That plate can not be used for fabrication until Purchasing and the Manufacturing QA Department have released it for fabrication.

Chicago Bridge & Iron Company

Mr. R. G. Damer, W9 D224
TENNESSEE VALLEY AUTHORITY
Box J 1.1P - 191
August 16, 1977

The steps I explained in Example No. 1 would cover the work performed on Work Order Example No. 2, except that Step No. 4 shows the piece to be rolled. Please note that even though example No. 2 is a "D" type material the welding was performed in Weld Shop No. 3 with welders that perform work on material that is covered by a complete QA documentation program.

As you can see, the same supervision and crew store, lay out, burn, roll and weld the contract material regardless of the type of documentation required. They are all qualified to handle "A" type material and therefore we feel are qualified to handle "D" type material. The only difference between the type of Work Order used for "A" or "D" type material is the documentation required by that type of material.

Our system of using the Purchase Orders to check the material when it is received, work orders to route the material from the Storage Yard to the Shipping Yard and the QA Department to perform any documentation or checks required insures CBI that the correct material is used where required and documented to meet the contract needs.

If you should have any more questions or if we can be of further help in resolving the audit questions, please contact us here in Birmingham.

Sincerely,

CHICAGO BRIDGE & IRON COMPANY


ROY J. GERETY
PROJECT MANAGER

RJG:mrc

cc: Mr. W. A. English-TVA-Knoxville, Tennessee
Mr. J. M. Anderson-TVA-Chattanooga, Tennessee
Mr. A. J. Goodwin-TVA-Fairfield, Tennessee

Attachments

Contract No. 72-4333
 Order No. 4333 Sheet 54
 Supplier USS - Gary
 Ordered Item No. 215-1 Quan. Ordered 1
 Material Spec. SA516 Grade 70
 Description Plate 100 x 1/2 x 237
 Initiated By DL Date 6/13/75

ROLL TO	BY	DATE	FOR
Rec. Yd.	DL	6-23	Inspecti

RECEIVING INSPECTION: (By Receiving Dept - From Information on Material)

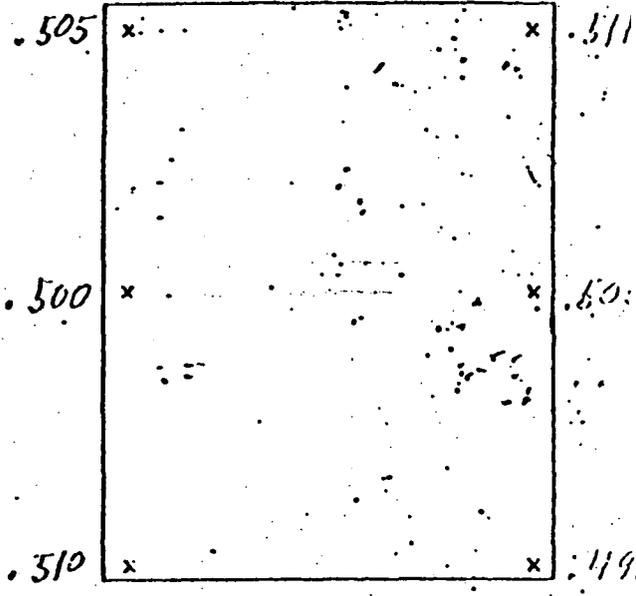
Carrier or Car or Truck No. EJE 5126 Quantity Received 1

Quantity Inspected 1 Partial Complete

Material Spec. (Marked on Material) A516-70

Supplier ID No. (Heat, Slab, Lot, Serial, Etc.)
102229
9-1

Thickness Record or Sketch



Width OK Yes No See "Nonconformities"
 Length OK Yes No See "Nonconformities"
 Size OK Yes No See "Nonconformities"
 Surface OK Yes No See "Nonconformities"

FOR HEAT TREATED PLATE:

Purchasing to Check Applicable Mill Stamping
 Mill Heat Treated Stamped MT Yes No
 CBI to Heat Treat Stamped G Yes No
 Nonconformities if "Yes", Explain Yes No

Material is held for Disposition and Tagged "Hold" Yes No

Received By Receiving M. Nelson Date 7-1-75

NONCONFORMITIES
 (If any, specify)
 (If any, specify by Purchasing)

By CBI Before Material Meets the Specification and is Released For Use:
 Heat Treatment - Yes No MT - Yes No UT - Yes No PT - Yes No

Other: _____

Processed By _____ Date _____

Disposition (By Quality Assurance) _____

Approved By _____ Date _____

RECEIVING OR SHOP QUALITY ASSURANCE

MATERIAL RELEASED FOR FABRICATION

Purchasing mlb Date 7-9-75

Quality Assurance N/A Date _____

72-4333

CBI NO.

EXAMPLE #1

BH 61-A REV FEB 76

WORK ORDER *MCC*

72-4333		DATE COMPLETED	No. 9540	DATE COMPLETED
DELIVER	YD 1			
LAYOUT	2			
SHEAR				
BURN	3	DAILY-FAB		
BEVEL	4			
GRIND				
CUT			WELD W-3 5	
THREAD			STR SHOP	
PUNCH			HEAT TREAT	
PLANE			SB 6	
SET ENDS	A-516-70		PAINT 7	
ROLL			SHIP 8	
DISH	LOW STRESS STENCIL		CODE NO: 360	
			PIPE GUIDES	

PCS.	MARK	DESCRIPTION	LENGTH	
			FT.	INS.
3	215-1	Ø SK X 1/2"		

B.S. 348
 LINE NO. 4
 DWG. 215
 D.S. C-20

PCS.	CUT FROM	SIZE	FT.	INS.	STR. OR ITEM	LEFT OVER		
						PCS.	FT.	INS.
1	Ø 100' X 1/2"		19	9	215/1			

CONTRACT 72-4333
 B.S. LINE NO. 4
 DATE JUL 28 1977
 RETURN STUB TO SHOP OFFICE WHEN MAT'L IS CUT
 No. 9540

EXAMPLE #2

DUPLICATE

WORK ORDER

McC

72-4333		DATE COMPLETED	No. 9541	DATE COMPLETED
DELIVER	YD 1		BEND	
LAYOUT	2		FORM	
SHEAR			MACHINE	
BURN	3		DRILL	
BEVEL			FIT	
GRIND			WELD	3 5
CUT			STR SHOP	
THEAT	LOW STRESS STENCIL		HEAT TREAT	
PUNCH			SP	6
PLANE	A-515-70		PAINT	7
SET ENDS			SHIP	8
POLL	4			
DISH			CODE No.	3360 PIPE GUIDES

PCS.	MARK	DESCRIPTION	LENGTH	
			FT.	INS.
3	215-2	6" X 1/2" X	9	7 19/32

D.S.	348	DWG.	215
LINE NO.	6	S.S.	C-20

PCS.	CUT FROM	SIZE	FT.	INS.	STR. OR ITEM	LEFT OVER		
						PCS.	FT.	INS.
1		92 X 1/2 X	20	0	4			

CONTRACT	72-4333	D.S. LINE NO.	312 28 1977	RETURN STUB TO SHOP OFFICE WHEN MATERIAL IS CUT.
----------	---------	---------------	-------------	--

No. 9541

Chicago Bridge & Iron Company

po box 277
Birmingham, Alabama 35201



twx 810 733 3554
telephone 205. 595 1191

November 7, 1977

Mr. R. G. Domer, W9D224
Chief Civil Engineer
Civil Engineering Branch
TENNESSEE VALLEY AUTHORITY
400 Commerce Avenue
Knoxville, Tennessee 37902

TVA CONTRACT 73C61-75320
CONTAINMENT VESSEL FOR
WATTS BAR NUCLEAR PLANT
UNIT I AND II
CBI CONTRACTS 72-4333/34U
CBI LETTER NO. 1.1P - 200

Dear Mr. Domer:

Your letter No. 327, dated October 21, 1977, has been reviewed and CBI will be glad to comply where possible. Response to your concern and questions are as follows:

1. Yes, CBI Field Welding Inspection and Documentation for the supports does meet the 1971 ASME Code, Winter Addenda, Requirements because there are no requirements.
2. The documentation and statements provided earlier did include the H₂ supports. Please refer to Bill of Materials Sheet 399. The statements covered items listed in the Bill of Materials listed in the attachments of CBI Letter No. 1.1P - 173, dated June 1, 1977.
3. Until your letter was received, CBI did not intend to include any of the records, statements or correspondence as part of the Permanent Records Package.

Should you decide to change the contract and require CBI to include this information in the Permanent Records Package there are several points that must be explained before we proceed.

EXHIBIT IV

Chicago Bridge & Iron Company

Mr. R. G. Domer, W9D224
TENNESSEE VALLEY AUTHORITY
1.1P - 200 Page 2
November 7, 1977

1. The supports were purchased, manufactured and installed by CBI according to original contract and TVA specifications.
2. Contract documentation requirements were met for the supports according to original contract requirements.
3. All further available documentation which TVA requested on the supports has been submitted to TVA. The only exception is our Field Welding and Inspection Records. We will notify you of the form of documentation we have for the field welding and inspection of the supports. The fit up was inspected, the welders qualified, a qualified WPS was used, and the finished welds were visually inspected. The information you require with the exception of the welder qualification papers and WPS are probably recorded on temporary work records. Currently we do not plan to show these records on permanent record forms.
4. CBI would expect TVA to list each document, letter or information record required in this package. CBI will notify you if the documentation is available and can be supplied.

Simply stated, CBI will help provide any records we now have to support the documentation of the supports, however this may or may not meet your requirements. We will make available any documentation we have or can generate from existing data that will be of use to TVA.

Should you have any questions, please call us.

Sincerely,

CHICAGO BRIDGE & IRON COMPANY



R. J. GERETY
PROJECT MANAGER

RJG:mcc

cc: Mr. J. H. Anderson-TVA-Chattanooga, Tennessee
cc: Mr. A. J. Goodwin-TVA-Fairfield, Alabama
cc: Mr. W. A. English-TVA-Knoxville, Tennessee

EXHIBIT V

Chicago Bridge & Iron Company

p o box 277
Birmingham, Alabama 35201



twx 810 733 3654
telephone 205. 595 1191

May 19, 1978

Mr. R. G. Domer, W9D224
Chief, Civil Engineering Branch
TENNESSEE VALLEY AUTHORITY
Commercial Realty Management Building
Knoxville, Tennessee 37902

ATTENTION: Mr. W. A. English

TVA CONTRACT 73C61-75320
CONTAINMENT VESSEL FOR
WATTS BAR NUCLEAR PLANT
UNIT I AND II
CBI CONTRACTS 72-4333/4
CBI LETTER NO. 1.1P - 234

Dear Mr. Domer:

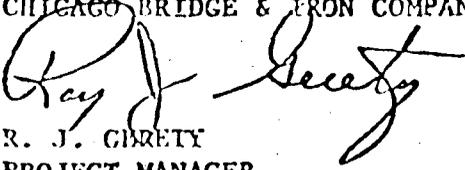
Attached is the letter stating how CBI installed the pipe supports and pipe guides. It is my understanding that this certification is all that TVA requires to clear up the problem you have with the NRC. We feel that this information plus other documentation supplied over the past year has more than covered our contract obligations.

All permanent records and documents that are available and required by the contract will be in the Nuclear Records Package. Again, we want to re-emphasize that CBI can not supply documentation in the form of records that were not originally required or generated during the work period.

We hope this closes out this problem and will enable TVA to clear up the NRC Audit.

Sincerely,

CHICAGO BRIDGE & IRON COMPANY


R. J. GIRETY
PROJECT MANAGER

RJG:mrc

cc: Mr. J. H. Anderson, TVA, Chattanooga, Tennessee
cc: Mr. A. J. Goodwin, TVA, Fairfield, Alabama

Chicago Bridge & Iron Company

p o box 277
Birmingham, Alabama 35201



twx 810 733 3654
telephone 205. 595 1191

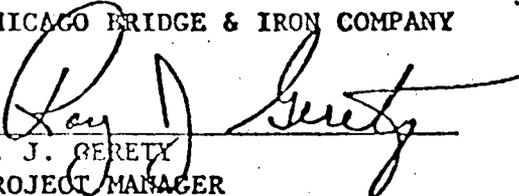
MAY 19, 1978

TO WHOM IT MAY CONCERN

THIS IS TO CERTIFY THAT THE PIPE GUIDES AND PIPE SUPPORTS AT THE WATTS BAR NUCLEAR PLANT WERE INSTALLED ON BOTH UNITS ACCORDING TO THE DRAWINGS, VISUALLY INSPECTED BEFORE WELDING FOR FITUP, WELDED BY CERTIFIED WELDERS USING APPROVED WELD PROCEDURES AND CERTIFIED WELD ELECTRODE. AFTER WELDING, THE SUPPORTS AND PIPE GUIDES WERE INSPECTED BY QUALIFIED Q.A. SUPERVISORS TO ENSURE THE WELDING WAS COMPLETED ACCORDING TO THE CONTRACT DRAWINGS.

THE WELDER QUALIFICATION PAPERS AND THE WELD ELECTRODE DOCUMENTATION ARE PART OF THE NUCLEAR RECORDS PACKAGE.

CHICAGO BRIDGE & IRON COMPANY


R. J. GERETY
PROJECT MANAGER


GLEN R. HOLLOWAY
Q.A. SUPERVISOR