



**Commonwealth Edison**  
One First National Plaza, Chicago, Illinois  
Address Reply to: Post Office Box 767  
Chicago, Illinois 60690

April 6, 1982

Mr. James G. Keppler, Regional Administrator  
Directorate of Inspection and  
Enforcement - Region III  
U.S. Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, IL 60137

Subject: Braidwood Station Units 1 and 2  
I&E Inspection Report Nos.  
50-456/81-14 and 50-457/81-14

- References (a): January 4, 1982, letter from  
C. E. Norelius to Cordell Reed.
- (b): February 4, 1982, letter from  
L. DelGeorge to J. G. Keppler.
- (c): March 17, 1982, letter from  
L. DelGeorge to J. G. Keppler.

Dear Mr. Keppler:

This is to provide additional information regarding the inspection of ungreased containment tendons at Braidwood Station.

Attachment A to this letter lists the installation, inspection, and greasing dates for all tendons not greased within 90 days of initial placement. The Sargent & Lundy specification for this work required monthly inspection of a random sample of 10% of such tendons. The specific requirements for this inspection were not met in every case but the intent of the specification was satisfied. More than 75% of the tendons have been inspected (usually at stressing) and were all found to be acceptable. The inspection record demonstrates that corrosion has not been a problem even though the originally specified inspection program was not followed.

As indicated in reference (c), Napoleon Steel Procedure 7B now incorporates the S&L inspection requirements. All tendons will be greased within 180 days of initial placement.

APR 12 1982

8204270455

J. G. Keppler

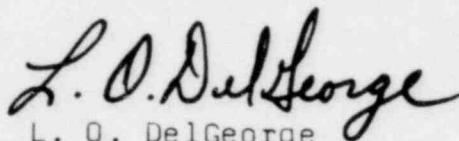
- 2 -

April 6, 1982

To the best of my knowledge and belief the statements contained in the attachment are true and correct. In some respects these statements are not based on my personal knowledge but upon information furnished by other Commonwealth Edison employees. Such information has been reviewed in accordance with Company practice and I believe it to be reliable.

Please address further questions regarding this matter to this office.

Very truly yours,

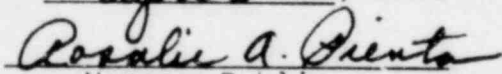


L. O. DelGeorge  
Director of Nuclear Licensing

lm

Attachment

SUBSCRIBED and SWORN to  
before me this 7th day  
of April, 1982

  
Notary Public

3807N

ATTACHMENT A

Summary of Tendon Inspections

Braidwood Station

NAPOLEON STEEL  
HORIZONTAL TENDONS

Status of Tendon Inspections For Tendon Corrosion

Dates in red - dates of inspection

P.T. - Inspected during stressing - stressing card

I.P. - Pulled out prior to stressing - ICCI Form IR-19

\* - Inspected at installation - Installation Card

Tendon #	Date Installed	Date Greased	Date Tendon Installed Over 90 Days	Inspections 91 - 120 Days	Inspections 121 - 150 Days	Inspections 151 - 180 Days	Inspections 181 - 210 Days	Inspections 211 - 240 Days
1CB	7-08-81	12-24-81	10-08-81			12-16-81 P.T.		
2CB	7-08-81	12-11-81	10-08-81		11-14-81 P.T.			
3CB	7-08-81 *	12-11-81	10-08-81					
4CB	7-07-81	12-24-81	10-07-81			12-16-81 P.T.		
5CB	7-07-81	12-11-81	10-07-81		11-14-81 P.T.			
6CB	7-07-81	12-11-81	10-07-81		11-13-81 P.T.			
7CB	7-07-81	12-24-81	10-07-81			12-15-81 P.T.		
8CB	7-07-81	12-11-81	10-07-81		11-14-81 P.T.			
9CB	7-07-81	12-11-81	10-07-81		11-12-81 P.T.			
10CB	7-07-81	12-24-81	10-07-81			12-19-81 P.T.		
11CB	7-03-81	12-11-81	10-03-81		11-14-81 P.T.			
12CB	7-03-81	12-11-81	10-03-81		11-10-81 P.T.			
13CB	7-03-81	12-24-81	10-03-81			12-14-81 P.T.		
14CB	7-02-81	12-24-81	10-02-81		11-16-81 P.T.			
15CB	7-02-81	12-11-81	10-02-81		11-10-81 P.T.			
16CB	7-02-81	12-24-81	10-02-81			12-10-81 P.T.		
17CB	11-07-81 *	12-24-81						
18CB	7-29-81	12-11-81	10-29-81	11-10-81 P.T.				
19CB	7-29-81	12-24-81	10-29-81		12-10-81 P.T.			
20CB	7-29-81	12-24-81	10-29-81	11-16-81 P.T.				
21CB	7-29-81	12-11-81	10-29-81	11-09-81 P.T.				
22CB	7-29-81	12-24-81	10-29-81		12-08-81 P.T.			
23CB	8-04-81	12-24-81	11-03-81	11-17-81 P.T.				

## HORIZONTAL TENDONS

Page 2

Tendon #	Date Installed	Date Greased	Date Tendon Installed Over 90 Days	Inspections 91 - 120 Days	Inspections 91 - 150 Days	Inspections 91 - 180 Days	Inspections 91 - 210 Days	Inspections 91 - 240 Days
24CB	8-04-81	12-11-81	11-03-81	11-09-81 P.T.				
25CB	7-29-81	12-24-81	10-29-81		12-08-81 P.T.			
26CB	7-29-81	12-24-81	10-29-81	11-17-81 P.T.				
27CB	7-29-81	12-08-81	10-29-81	11-05-81 P.T.				
28CB	7-28-81	12-24-81	10-28-81		12-07-81 P.T.			
29CB	7-28-81	12-24-81	10-28-81	11-17-81 P.T.				
30CB	7-01-81	12-08-81	10-01-81			12-07-81 P.T.		
31CB	7-01-81	12-24-81	10-01-81			12-07-81 P.T.		
32CB	7-01-81	12-24-81	10-01-81		11-17-81			
33CB	6-30-81	12-08-81	9-29-81		11-04-81 P.T.			
34CB	6-30-81	12-23-81	9-29-81			12-05-81 P.T.		
35CB	6-29-81	12-23-81	9-28-81		11-18-81 P.T.			
36CB	6-29-81	12-08-81	9-28-81		11-04-81 P.T.			
37CB	6-29-81	12-23-81	9-28-81			12-05-81 P.T.		
38CB	6-29-81	12-23-81	9-28-81		11-18-81 P.T.			
39CB	6-29-81	12-08-81	9-28-81					
40CB	6-29-81	12-23-81	9-28-81			12-03-81 P.T.		
41CB	6-26-81	12-23-81	9-25-81		11-19-81			
42CB	6-26-81	12-08-81	9-25-81		11-03-81			
43CB	6-26-81	12-23-81	9-25-81			12-03-81 P.T.		
44CB	6-26-81	12-23-81	9-25-81		11-19-81 P.T.			
45CB	6-26-81	12-08-81	9-25-81		10-30-81 P.T.			
46CB	6-26-81	12-23-81	9-25-81			12-02-81 P.T.		
47CB	6-26-81	12-23-81	9-25-81		11-20-81 P.T.			
48CB	6-26-81	12-08-81	9-25-81		10-30-81 P.T.			
49CB	6-26-81	12-23-81	9-25-81			12-02-81 P.T.		

# HORIZONTAL TENDONS

Page 3

Tendon #	Date Installed	Date Greased	Date Tendon Installed Over 90 Days	Inspections 91 - 120 Days	Inspections 91 - 150 Days	Inspections 91 - 180 Days	Inspections 91 - 210 Days	Inspections 91 - 240 Days
500B	6-25-81	12-23-81	9-24-81			11-24-81 P.T.		
51CB	6-25-81	11-21-81	9-24-81		10-30-81 P.T.			
52CB	6-25-81	12-23-81	9-24-81			12-02-81 P.T.		
53CB	6-25-81	12-23-81	9-24-81			11-24-81 P.T.		
54CB	6-25-81	11-21-81	9-24-81		10-28-81 P.T.			
55CB	6-25-81	12-28-81	9-24-81			12-01-81 P.T.		
56CB	6-25-81	12-23-81	9-24-81			11-24-81 P.T.		
57CB	6-25-81	11-21-81	9-24-81		10-27-81 P.T.			
58CB	6-25-81	12-23-81	9-24-81			12-01-81 P.T.		
59CB	6-24-81	12-23-81	9-23-81			11-25-81 P.T.		
60CB	6-24-81	11-21-81	9-23-81		10-27-81 P.T.			
61CB	6-24-81	12-23-81	9-23-81			11-30-81 P.T.		
62CB	6-24-81	12-22-81	9-23-81			11-25-81 P.T.		
63CB	6-24-81	11-21-81	9-23-81		10-23-81 P.T.			
64CB	6-24-81	12-22-81	9-23-81			11-30-81 P.T.		
65CB	6-24-81	12-22-81	9-23-81			11-25-81 P.T.		
66CB	6-23-81	11-21-81	9-22-81	10-19-81 P.T.				
67CB	6-23-81	12-22-81	9-22-81			11-27-81 P.T.		

# HORIZONTAL TENDONS

Page 4

Tendon #	Date Installed	Date Greased	Date Tendon Installed Over 90 Days	Inspections 91 - 120 Days	Inspections 91 - 150 Days	Inspections 91 - 180 Days	Inspections 91 - 210 Days	Inspections 91 - 240 Days
1AC	6-11-81	12-21-81	9-10-81				12-16-81 I.P.	
2AC	6-11-81 *	12-11-81	9-10-81					
3AC	6-11-81 *	12-11-81	9-10-81					
4AC	6-11-81	12-21-81	9-10-81				12-16-81 I.P.	
5AC	6-11-81 *	12-11-81	9-10-81					
6AC	6-12-81 *	12-11-81	9-11-81					
7AC	6-12-81	12-21-81	9-11-81				12-15-81 I.P.	
8AC	6-12-81*	12-11-81	9-11-81					
9AC	6-12-81*	12-11-81	9-11-81					
10AC	6-12-81	12-21-81	9-11-81				12-15-81 I.P.	
11AC	5-26-81	12-11-81	8-25-81		10-02-81 I.P.			
12AC	5-26-81	12-11-81	8-25-81		10-02-81 I.P.	11-10-81 P.T.		
13AC	5-26-81	12-21-81	8-25-81		10-02-81 I.P.		12-14-81 I.P.	
14AC	5-22-81	12-21-81	8-25-81		10-02-81 I.P.			
15AC	5-22-81	12-11-81	8-25-81		10-02-81 I.P.	11-10-81 P.T.		
16AC	5-22-81	12-21-81	8-25-81		10-02-81 I.P.		12-03-81 I.P.	
17AC	5-22-81	12-21-81	8-25-81		10-02-81 I.P.		12-03-81 P.T.	
18AC	6-15-81	12-11-81	8-25-81		10-02-81 I.P.			
19AC	6-16-81*	12-21-81	9-15-81					
20AC	6-16-81	12-21-81	9-15-81		10-02-81 I.P.			
21AC	6-16-81	12-11-81	9-15-81		10-02-81 I.P.			
22AC	6-16-81	12-21-81	9-15-81		10-02-81 I.P.	12-08-81 P.T.		
23AC	6-16-81	12-21-81	9-15-81		10-02-81 I.P.			
24AC	6-16-81	12/11-81	9-15-81		10-02-81 I.P.			
25AC	6-16-81	12/21-81	9-15-81		10-02-81	12-08-81 P.T.		

# HORIZONTAL TENDONS

Page 5

Tendon #	Date Installed	Date Greased	Date Tendon Installed Over 90 Days	Inspections 91 - 120 Days	Inspections 91 - 150 Days	Inspections 91 - 180 Days	Inspections 91 - 210 Days	Inspections 91 - 240 Days
26AC	6-16-81*	12-21-81	9-15-81					
27AC	6-17-81	12-24-81	9-16-81		11-05-81 P.T.			
28AC	8-07-81	12-21-81	11-06-81	12-07-81 P.T.				
29AC	6-17-81*	12-21-81	9-16-81					
30AC	6-17-81	12-04-81	9-16-81		11-05-81 P.T.			
31AC	6-17-81	12-21-81	9-16-81			12-09-81 P.T.		
32AC	6-18-81*	12-21-81	9-17-81					
33AC	5-22-81*	12-04-81	8-20-81					
34AC	6-18-81	12-21-81	9-17-81			12-09-81 P.T.		
35AC	5-22-81	12-21-81	8-21-81			12-09-81 P.T.		
36AC	5-21-81*	12-04-81	8-20-81					
37AC	6-18-81	12-21-81	9-17-81				12-05-81 P.T.	
38AC	6-18-81	12-21-81	9-17-81			11-18-81 P.T.		
39AC	5-21-81	12-04-81	8-20-81			11-04-81 P.T.		
40AD	6-18-81	12-22-81	9-17-81			12-05-81 P.T.		
41AC	5-21-81	12-22-81	8-20-81			11-15-81 P.T.		
42AC	10-07-81*	12-04-81						
43AC	6-18-81*	12-22-81	9-17-81					
44AD	6-18-81	12-22-81	9-17-81			11-19-81 P.T.		12-03-81 P.T. 57 days
45AC	5-20-81	12-04-81	8-19-81					
46AC	6-19-81	12-22-81	9-18-81			12-02-81 P.T.		
47AC	6-19-81	12-22-81	9-18-81			11-23-81 P.T.		
48AC	5-20-81	12-04-81	8-19-81			10-30-81 P.T.		
49AC	6-19-81	12-22-81	9-18-81			12-02-81 P.T.		
50AC	6-19-81	12-22-81	9-18-81			11-24-81 P.T.		

## HORIZONTAL TENDONS

Page 6

Tendon #	Date Installed	Date Greased	Date Tendon Installed Over 90 Days	Inspections 91 - 120 Days	Inspections 91 - 150 Days	Inspections 91 - 180 Days	Inspections 91 - 210 Days	Inspections 91 - 240 Days
51AC	5-20-81 *	12-04-81	8-19-81					
52AC	6-19-81	12-22-81	9-10-81			12-01-81 P.T.		
53AC	6-19-81	12-22-81	9-18-81			11-24-81 P.T.		
54AC	5-19-81	11-24-81	8-18-81			10-28-81 P.T.		
55AC	6-19-81	12-22-81	9-18-81			12-01-81 P.T.		
56AC	6-19-81	12-22-81	9-18-81			11-24-81 P.T.		
57AC	5-19-81	11-24-81	8-18-81			10-27-81 P.T.		
58AC	6-19-81	12-22-81	9-18-81			11-30-81 P.T.		
59AC	6-22-81	12-22-81	9-21-81		9-04-81	11-25-81 P.T.		
60AC	5-19-81	11-21-81	8-18-81			11-30-81 P.T.		
61AC	6-22-81 *	12-22-81	9-21-81					
62AC	6-22-81	12-22-81	9-21-81		9-09-81	11-29-81 P.T.		
63AC	5-19-81 *	11-21-81	8-18-81					
64AC	6-22-81	12-22-81	9-21-81			11-30-81 P.T.		
65AC	6-22-81	12-22-81	9-21-81		9-09-81	11-27-81 P.T.		
66AC	5-18-81	11-21-81	8-17-81			10-19-81 P.T.		
67AC	6-22-81	12-22-81	9-22-81			11-27-81 P.T.		

# HORIZONTAL TENDONS

Page 7

Tendon #	Date Installed	Date Greased	Date Tendon Installed Over 90 Days	Inspections 91 - 120 Days	Inspections 91 - 150 Days	Inspections 91 - 180 Days	Inspections 91 - 210 Days	Inspections 91 - 240 Days
1BA	6-10-81	12-18-81	9-09-81				12-16-81 I.P.	
2BA	6-09-81	12-11-81	9-08-81			11-14-81 P.T.		
3BA	6-09-81	12-11-81	9-08-81			11-13-81 P.T.		
4BA	6-09-81	12-18-81	9-08-81				12-16-81 I.P.	
5BA	6-08-81	12-18-81	9-07-81				12-16-81 I.P.	
6BA	6-08-81	12-11-81	9-07-81				12-16-81 P.T.	
7BA	6-08-81	12-18-81	9-07-81				12-16-81 I.P.	
8BA	6-08-81	12-11-81	9-07-81			11-14-81 P.T.		
9BA	6-05-81	12-11-81	9-04-81			11-12-81 P.T.		
10BA	6-05-81	12-18-81	9-04-81				12-16-81 I.P.	
11BA	6-05-81	12-10-81	9-04-81			11-16-81 P.T.		
12BA	6-05-81	12-10-81	9-04-81			11-10-81 P.T.		
13BA	6-05-81	12-18-81	9-04-81				12-14-81 I.P.	
14BA	6-05-81	12-18-81	9-04-81			11-16-81 P.T.		
15BA	6-04-81	12-03-81	9-03-81			11-10-81 P.T.		
16BA	6-04-81	12-18-81	9-03-81				12-10-81 I.P.	
17BA	6-04-81	12-18-81	9-03-81			11-16-81 P.T.		
18BA	7-14-81	12-03-81	10-14-81	11-10-81 P.T.				
19BA	7-13-81 *	12-18-81	10-13-81					
20BA	7-13-81	12-18-81	10-13-81		11-16-81 P.T.			
21BA	7-13-81	12-03-81	10-13-81	11-10-81 P.T.				
22BA	7-13-81*	12-18-81	10-13-81					
23BA	7-13-81	12-18-81	10-13-81		11-17-81 P.T.			
24BA	7-13-81	12-03-81	10-13-81	11-09-81 P.T.				
25BA	7-10-81 *	12-18-81	10-10-81					

Tendon #	Date		Date Tendon		Inspections		Inspections		Inspections	
	Installed	Greased	Installed	Over 90 Days	91 - 120 Days	121 - 150 Days	151 - 180 Days	181 - 210 Days	211 - 240 Days	
26BA	7-10-81	12-18-81	10-10-81			11-17-81 P.T.				
27BA	7-10-81	12-03-81	10-10-81		11-09-81 P.T.					
28BA	7-10-81	12-18-81	10-10-81							
29BA	7-10-81	12-09-81	10-10-81			11-17-81 P.T.				
30BA	7-10-81	12-03-81	10-10-81							
31BA	7-09-81	12-09-81	10-09-81		11-09-81 P.T.		12-05-81 I.P.			
32BA	7-09-81	12-09-81	10-09-81		11-17-81 P.T.					
33BA	6-03-81	12-03-81	9-02-81				11-04-81 P.T.			
34BA	6-03-81	12-09-81	9-02-81							12-05-81 I.P.
35BA	6-03-81	12-09-81	9-02-81				11-17-81 P.T.			
36BA	6-03-81	12-03-81	9-02-81				11-04-81 P.T.			12-05-81 I.P.
37BA	6-03-81	12-09-81	9-02-81							
38BA	6-03-81	12-09-81	9-02-81				11-19-81 P.T.			
39BA	6-03-81	12-03-81	9-02-81				11-04-81 P.T.			
40BA	6-03-81	12-09-81	9-02-81							12-05-81 I.P.
41BA	6-02-81	12-09-81	8-31-81		5-20-81		11-19-81 P.T.			
42BA	6-01-81	12-03-81	8-30-81				11-03-81 P.T.			
43BA	6-01-81	12-09-81	8-30-81							12-02-81 I.P.
44BA	6-01-81	12-09-81	8-30-81		3-20-81		11-19-81 P.T.			
45BA	6-01-81	12-03-81	8-30-81				10-30-81 P.T.			
46BA	6-01-81	12-09-81	8-30-81							12-02-81 I.P.
47BA	6-01-81	12-09-81	8-30-81				11-20-81 P.T.			
48BA	6-01-81	12-03-81	8-30-81				10-30-81 P.T.			
49BA	6-01-81	12-09-81	8-30-81							12-01-81 I.P.
50BA	5-29-81	12-09-81	8-28-81		3-20-81		11-23-81			

## HCH ZONTAL TENDONS

Tendon #	Date Installed	Date Greased	Date Tendon Installed Over 90 Days	Inspection 91 - 121 Days	Inspection 91 - 150 Days	Inspection 91 - 180 Days	Inspection 91 - 210 Days	Inspection 91 - 240 Days
51BA	5-29-81	12-03-81	8-28-81			10-26-81 P.T.	12-01-81 I.P.	
52BA	5-29-81	12-09-81	8-28-81					
53BA	5-29-81	12-09-81	8-28-81	8-20-81		11-26-81 P.T.	10-23-81 P.T.	
54BA	5-29-81	11-24-81	8-28-81				12-01-81 I.P.	
55BA	5-29-81	12-09-81	8-28-81					
56BA	5-28-81	12-09-81	8-27-81	8-20-81		11-26-81 P.T.		
57BA	5-28-81	11-24-81	8-27-81			10-27-81 P.T.	11-30-81 I.P.	
58BA	5-28-81	12-09-81	8-27-81				11-25-81 I.P.	
59BA	5-25-81	12-09-81	8-27-81					
60BA	5-28-81	11-24-81	8-27-81			10-27-81 P.T.		
61BA	5-28-81	12-09-81	8-27-81				11-30-81 I.P.	
62BA	5-28-81	12-09-81	8-27-81				11-25-81 I.P.	
63BA	5-28-81	11-21-81	8-27-81					
64BA	5-27-81	12-09-81	8-26-81				11-27-81 I.P.	
65BA	5-27-81	12-09-81	8-26-81				11-25-81 I.P.	
66BA	5-27-81	11-21-81	8-26-81			10-26-81 P.T.		
67BA	5-27-81	12-09-81	8-26-81				11-27-81 I.P.	