# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8809280274 DOC.DATE: 88/09/23 NOTARIZED: NO DOCKET #
FACIL:50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylva 05000387
50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylva 05000388
AUTH.NAME AUTHOR AFFILIATION
KEISER,H.W. Pennsylvania Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION
RUSSELL,W.T. Region 1, Ofc of the Director

SUBJECT: Refers to questions re cracking Susquehanna SES CRD bolts disposition during last refueling and inspection.

DISTRIBUTION CODE: A001D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 3
TITLE: OR Submittal: General Distribution

NOTES:LPDR 2 cys Transcripts. 05000387
LPDR 2 cys Transcripts. 05000388

| | RECIPIENT ID CODE/NAME | COPIES LTTR | COPIES ENCL | RECIPIENT ID CODE/NAME | COPIES LTTR | COPIES ENCL |
|---|---|---|---|---|---|---|
| | PD1-2 LA | 1 | 0 | PD1-2 PD | 5 | 5 |
| | THADANI,M | 1 | 1 | | | |
| INTERNAL: | ACRS | 6 | 6 | ARM/DAF/LFMB | 1 | 0 |
| | NRR/DEST/ADS 7E | 1 | 1 | NRR/DEST/CEB 8H | 1 | 1 |
| | NRR/DEST/ESB 8D | 1 | 1 | NRR/DEST/MTB 9H | 1 | 1 |
| | NRR/DEST/RSB 8E | 1 | 1 | NRR/DOEA/TSB 11 | 1 | 1 |
| | NRR/PMAS/ILRB12 | 1 | 1 | NUDOCS-ABSTRACT | 1 | 1 |
| | OGC/HDS2 | 1 | 0 | REG FILE 01 | 1 | 1 |
| | RES/DSIR/EIB | 1 | 1 | | | |
| EXTERNAL: | LPDR | 2 | 2 | NRC PDR | 1 | 1 |
| | NSIC | 1 | 1 | | | |
| NOTES: | | 2 | 2 | | | |

TOTAL NUMBER OF COPIES REQUIRED: LTTR 31 ENCL 28

RIDS/ADDS

RIDS/ADDS

PP&L Pennsylvania Power & Light Company
Two North Ninth Street • Allentown, PA 18101 • 215 / 770-5151

SEP 23 1988

Harold W. Keiser
*Senior Vice President-Nuclear*
215/770-4194

Mr. William T. Russell
Regional Administrator Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

SUSQUEHANNA STEAM ELECTRIC STATION
QUESTIONS REGARDING CRD BOLT DISPOSITION
PLA-3083 FILES R41-2, A22-7F

Docket Nos. 50-387
and 50-388

Dear Mr. Russell:

This letter is to document PP&L's responses to questions from your staff regarding the cracking in Susquehanna SES CRD bolts which were removed from the Unit 2 during the last refueling and inspection outage. The questions and our responses follow:

1) Is there are relationship between the corrosion, pitting and cracking which was observed and the presence of any thread lubricant in the area?

Since the bolts were cleaned prior to the inspection for cracks, there was no visual evidence remaining of the presence of thread lubricant in the areas where corrosion was present. During the next outage on Unit 1, we are going to request obtaining a set of 'virgin' bolts which will be taken from service and directly bagged so that the metallurgical laboratory will be able to ascertain what corrosive or foreign elements are present in the cracking/corrosion area. At the same time we will be looking for he maximum depth of cracking to compare to what was found on the younger Unit 2 bolts. If the cracking is indeed stable, then the crack depths should be similar.

2) What was the manufacturing process for the bolts?

From the cross-section we took of the bolt head area, we were able to determine that it must have been some hot or cold forging of bar stock. The evidence for this is shown in the attached photograph of the fillet area where elongated MnS stringers are shown parallel to the fillet surface. We have to conclude that the bolts were not machined from a larger bar stock since that would have given us a cross-section with stringers all parallel to the bar shank.



A001
1/1

If you have any further questions concerning this issue, please contact C.T. Coddington (215-770-7915) or L.E. Willertz (215-770-7646).

Very truly yours,

H. W. Keiser

cc: NRC Document Control Desk (original)
NRC Region I
Mr. H. Kaplan, NRC Region I
Mr. M. C. Thadani, NRC Project Manager
Mr. F. I. Young, NRC Sr. Resident Inspector

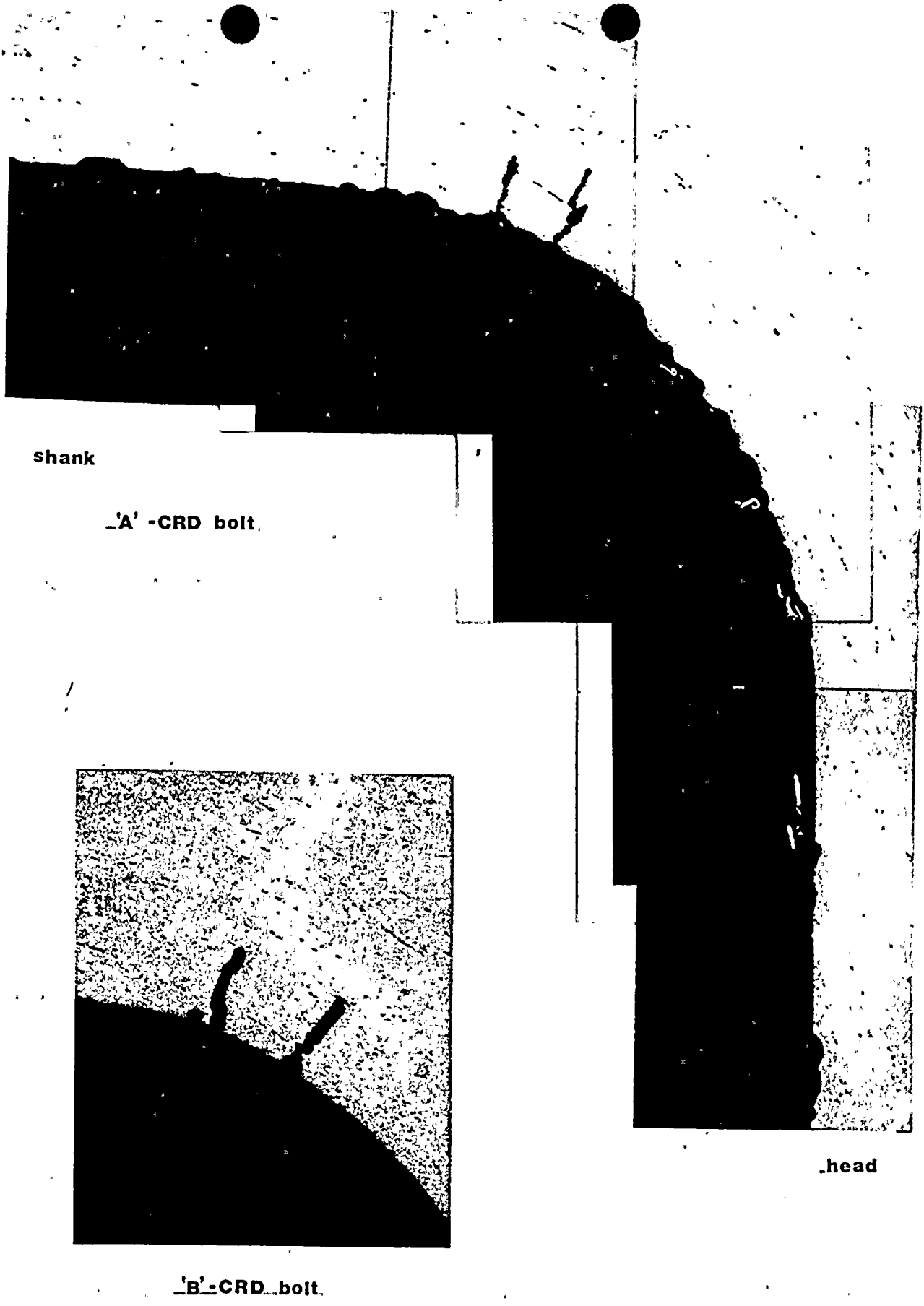


FIGURE 1. Cross section of two CRD bolts from Unit 2 of Susquehanna showing the depth of the cracks and pitting. Note also the MnS stringers oriented in parallel with the fillet under the head from the forming operation.
(38.5X after reproduction)