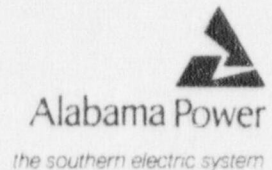


Alabama Power Company
600 North 18th Street
Post Office Box 2641
Birmingham, Alabama 35291
Telephone 205 250-1000

F. L. CLAYTON, JR.
Senior Vice President



January 20, 1981

Docket No. 50-348

Mr. Stever A. Varga, Chief
Operating Reactors Branch 1
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555



JOSEPH M. FARLEY NUCLEAR PLANT - UNIT 1
INFORMATION ON LOW PRESSURE (LP) TURBINE DISC PROPERTIES

Dear Mr. Varga:

Enclosed is the Turbine Disc Information printout for the LP Turbine Rotors that are being installed in Farley Nuclear Plant Unit 1. As requested by your letter of January 5, 1981 this information provides the detailed material properties of the discs, bore stress data, critical crack sizes and crack growth rates as calculated by Westinghouse.

Enclosure I contains proprietary information of the Westinghouse Electric Corporation. A copy of the previously submitted Application for Withholding AW-80-1 dated March 14, 1980 and the associated affidavit is attached and is equally applicable to this new information. Accordingly, it is requested that the subject Westinghouse proprietary information be withheld from public disclosure in accordance with the provisions of 10CFR 2.790 of the Commission's regulations.

Correspondence with respect to the affidavit or Application for Withholding should reference AW-80-1 and should be addressed to Mr. J. E. Barsness, Manager, LP Disc Program, Westinghouse Electric Corporation, Steam Turbine Division, Lester Branch, Box 9175, Philadelphia, Pennsylvania, 19113.

Very truly yours,

F. L. Clayton, Jr.
F. L. Clayton, Jr.

WW:bs

Enclosures

cc: Mr. R. A. Thomas
Mr. G. F. Trowbridge
Mr. E. A. Reeves
Mr. W. H. Bradford

PAO's
CHANGE:
NRE POR
LPOR
NSIC
ADD:
W ROSS
L ENGLE
W HAZELTON

P

8101230 425

Enclosures:

- (1) One copy - LP Turbine Disc Information (Proprietary)
- (2) One copy - LP Turbine Disc Information (Non-Proprietary)
- (3) One copy of Application for Withholding AW-80-1 (Non-Proprietary)
- (4) One copy of Affidavit (Non-Proprietary)

LP TURBINE DISC INFORMATION (NON-PROPRIETARY)

[] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 011281

ID # : 0281100201

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 281
2. UNIT FARLEY #1 REP
3. CUSTOMER: ALABAMA PWR.
4. LPM 1
5. LOCATION 60V
6. DISC 1
7. TEST NO. TN8986
8. ROTOR NO. TN8802
9. S.O. NO.

B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. [] TD [] (KSI))
2. SUPPLIER
3. Y.S. (KSI)
4. U.T.S. (KSI)
5. ELONGATION
6. B.A.
7. R.T. IMPACT (FT.LB.) (DEG.F)
8. R.T. IMPACT (FT.LB.)
9. U.S. IMPACT TEMP. (DEG.F)
10. U.S. IMPACT ENG. (FT.LB.)
11. U.S. KIC (KSI*SQRT(IN.))

C. MATERIAL PROPERTIES (RIM)

1. Y.S. (KSI)
2. U.T.S. (KSI)
3. ELONGATION
4. B.A.
5. R.T. IMPACT (FT.LB.) (DEG.F)
6. R.T. IMPACT (FT.LB.)
7. U.S. IMPACT TEMP. (DEG.F)
8. U.S. IMPACT ENG. (FT.LB.)
9. U.S. KIC (KSI*SQRT(IN.))

D. CHEMISTRY

C [] MH [] SI [] P [] CR [] MO [] V []
NI [] AS [] SB [] SN [] AL [] CU [] S []

E. BORE STRESS

SPEED (RPM) STRESS
1. 1800 (KSI) []
2. 2160 (120%) (KSI) []

F. CRACK DATA (KEYWAY RADIUS (IN) [])

1. A-CR-OP (1800 RPM) (IN.) []
2. A-CR-OS (OVERSPEED) (IN.) []

G. SERVICE DATA

1. OPER. TEMP. METAL TEMP. HUB (DEG.F) []
2. ESTIMATED MAX DA/DT (IN/HR) []
3. ESTIMATED MAX DA/DT (IN/MONTH) []

I. INSPECTION STATUS

1. FIRST INSPECTION DATE []
2. OPERATING TIME AT INSPECTION (HR.) []
3. KEYWAY CRACK DEPTH (MAX.)-(IN.) []
4. BORE CRACK DEPTH (MAX.)-(IN.) []
5. DISK STATUS []

[] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 011281

ID # : D281100201

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 281
2. UNIT FARLEY #1 REP
3. CUSTOMER ALABAMA POWER
4. LP#
5. LOCATION 100V
6. DISC# 2
7. TEST NO. TN8987
8. ROTOR NO. TN8802
9. S.O. NO.

B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. [] (KSI))
2. SUPPLIER []
3. Y.S. (KSI)
4. U.T.S. (KSI)
5. ELONGATION []
6. R.A. []
7. FATTY (DEG.F) []
8. R.T. IMPACT (FT.LB.) []
9. U.S. IMPACT TEMP. (DEG.F) []
10. U.S. IMPACT ENG. (FT.LB.) []
11. U.S. KIC (KSI*SQRT(IN.)) []

C. MATERIAL PROPERTIES (RIM)

1. Y.S. (KSI) []
2. U.T.S. (KSI) []
3. ELONGATION []
4. R.A. []
5. FATTY (DEG.F) []
6. R.T. IMPACT (FT.LB.) []
7. U.S. IMPACT TEMP. (DEG.F) []
8. U.S. IMPACT ENG. (FT.LB.) []
9. U.S. KIC (KSI*SQRT(IN.)) []

D. CHEMISTRY

C [] MN [] SI [] P [] CR [] MO [] V []
NI [] AS [] SB [] SH [] AL [] CU [] S []

E. BORE STRESS

SPEED (RPM) STRESS

1. 1800 (KSI) []
2. 2160 (120%) (KSI) []

F. CRACK DATA (KEYWAY RADIUS (IN) [])

1. A-CR-OP (1800 RPM) (IN.) []
2. A-CR-OS (OVERSPEED) (IN.) []

G. SERVICE DATA

1. OPER. TEMP. METAL TEMP. HUB (DEG.F) []
2. ESTIMATED MAX DA/DT (IN/HR) []
3. ESTIMATED MAX DA/DT (IN/MONTH) []

I. INSPECTION STATUS

1. FIRST INSPECTION DATE []
2. OPERATING TIME AT INSPECTION (HR.) []
3. KEYWAY CRACK DEPTH (MAX.)-(IN.) []
4. BORE CRACK DEPTH (MAX.)-(IN.) []
5. DISK STATUS []

[] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 011281

ID # : D281100201

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 281
2. UNIT
3. CUSTOMER: FARLEY #1 REP
4. LP# ALABAMA PUR#
5. LOCATION 1 GOV
6. BASE#
7. TEST NO. TN8980
8. ROTOR NO. TN8802
9. S.O. NO.

B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. [] ID
2. SUPPLIER (KSI)
3. Y.S. (KSI)
4. U.T.S. (KSI)
5. ELONGATION
6. R.A.
7. FAT (DEG.F)
8. R.T. IMPACT (FT.LB.)
9. U.S. IMPACT TEMP. (DEG.F)
10. U.S. IMPACT ENG. (FT.LB.)
11. U.S. KIC (KSI*SQRT(IN.))

C. MATERIAL PROPERTIES (RIM)

1. Y.S. (KSI)
2. U.T.S. (KSI)
3. ELONGATION
4. R.A.
5. FAT (DEG.F)
6. R.T. IMPACT (FT.LB.)
7. U.S. IMPACT TEMP. (DEG.F)
8. U.S. IMPACT ENG. (FT.LB.)
9. U.S. KIC (KSI*SQRT(IN.))

D. CHEMISTRY

[] C [] N [] SI [] P [] CR [] MO [] V
[] NI [] AS [] SB [] SN [] AL [] CU [] S

E. BORE STRESS

SPEED (RPM) STRESS

1. 1800 (KSI) []
2. 2160 (120%) (KSI) []

F. CRACK DATA (KEYWAY RADIUS (IN) [])

1. A-CR-OP (1800 RPM) (IN.) []
2. A-CR-OS (OVERSPEED) (IN.) []

G. SERVICE DATA

1. OPER. TEMP. METAL TEMP. HUB (DEG.F) []
2. ESTIMATED MAX DA/DT (IN/HR) []
3. ESTIMATED MAX DA/DT (IN/MONTH) []

I. INSPECTION STATUS

1. FIRST INSPECTION DATE []
2. OPERATING TIME AT INSPECTION (HR.) []
3. KEYWAY CRACK DEPTH (MAX.)-(IN.) []
4. BORE CRACK DEPTH (MAX.)-(IN.) []
5. DISK STATUS []

[] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : D11281

ID # : D281100201

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 281
2. UNIT FARLET #1 REP
3. CUSTOMER ALABAMA PWR.
4. LPA
5. LOCATION GOV
6. DISC # 6
7. TEST NO. TN8989
8. ROTOR NO. TN8802
9. S.O. NO.

B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. [] (KSI))
2. SUPPLIER
3. Y.S. (KSI)
4. U.T.S. (KSI)
5. ELONGATION
6. B.A.
7. FATT (DEG.F)
8. R.T. IMPACT (FT.LB.)
9. U.S. IMPACT TEMP. (DEG.F)
10. U.S. IMPACT ENG. (FT.LB.)
11. U.S. KIC (KSI*SQRT(IN.))

C. MATERIAL PROPERTIES (RIM)

1. Y.S. (KSI)
2. U.T.S. (KSI)
3. ELONGATION
4. B.A.
5. FATT (DEG.F)
6. R.T. IMPACT (FT.LB.)
7. U.S. IMPACT TEMP. (DEG.F)
8. U.S. IMPACT ENG. (FT.LB.)
9. U.S. KIC (KSI*SQRT(IN.))

D. CHEMISTRY

C MN SI P CR MO V
NI AS SB SN AL CU S

E. BORE STRESS

SPEED (RPM) STRESS

1. 1800 (KSI) []
2. 2160 (120X) (KSI) []

F. CRACK DATA (KEYWAY RADIUS (IN) [])

1. A-CR-OP (1800 RPM) (IN.) []
2. A-CR-OS (OVERSPEED) (IN.) []

G. SERVICE DATA

1. OPER. TEMP. METAL TEMP. HUB (DEG.F)
2. ESTIMATED MAX DA/DT (IN/HR)
3. ESTIMATED MAX DA/DT (IN/MONTH)

I. INSPECTION STATUS

1. FIRST INSPECTION DATE
2. OPERATING TIME AT INSPECTION (HR.)
3. KEYWAY CRACK DEPTH (MAX.)-(IN.)
4. BORE CRACK DEPTH (MAX.)-(IN.)
5. DISK STATUS

[] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 011281

ID # : D281100201

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 281
2. UNIT
3. CUSTOMER: EMBLEY #1 REP
4. LPM ALABAMA PWR.
5. LOCATION 1 GOV
6. DISC# 2
7. TEST NO. TN8940
8. ROTOR NO. TN8802
9. S.O. NO.

B. MATERIAL PROPERTIES (HUB)

1. TYPE
2. SUPPLIER: TO
3. V.S. (KSI)
4. U.S. (KSI)
5. ELONGATION
6. B.A.
7. FAT (DEG.F)
8. R.T. IMPACT (FT.LB.)
9. U.S. IMPACT TEMP. (DEG.F)
10. U.S. IMPACT ENG. (FT.LB.)
11. U.S. KIC (KSI*SQRT(IN.))

C. MATERIAL PROPERTIES (RIM)

1. V.S. (KSI)
2. U.S. (KSI)
3. ELONGATION
4. B.A.
5. FAT (DEG.F)
6. R.T. IMPACT (FT.LB.)
7. U.S. IMPACT TEMP. (DEG.F)
8. U.S. IMPACT ENG. (FT.LB.)
9. U.S. KIC (KSI*SQRT(IN.))

D. CHEMISTRY

C MN SI P CR MO V
NI AS SB SN AL CU S

E. BORE STRESS

SPEED (RPM) STRESS

1. 1800 (KSI)
2. 2160 (120X) (KSI)

F. CRACK DATA (KEYWAY RADIUS (IN) [])

1. A-CR-OP (1800 RPM) (IN.)
2. A-CR-OS (OVERSPEED) (IN.)

G. SERVICE DATA

1. OPER. TEMP. METAL TEMP. HUB (DEG.F)
2. ESTIMATED MAX DA/DT (IN/HR)
3. ESTIMATED MAX DA/DI (IN/MONTH)

I. INSPECTION STATUS

1. FIRST INSPECTION DATE
2. OPERATING TIME AT INSPECTION (HR.)
3. KEYWAY CRACK DEPTH (MAX.)-(IN.)
4. BORE CRACK DEPTH (MAX.)-(IN.)
5. DISK STATUS

[] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 011281

ID # : 0281100202

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 281
2. UNIT FARLEY #1 REP
3. CUSTOMER: ALABAMA PWR
4. LP# 1
5. LOCATION GEN
6. DISC# 1
7. TEST NO. TN8985
8. ROTOR NO. TN8802
9. S.O. NO.

B. MATERIAL PROPERTIES (HUB)

1. TYPE TD
(MIN. Y.S. [] (KSI))
2. SUPPLIER:
3. Y.S. (KSI)
4. U.T.S. (KSI)
5. ELONGATION
6. B.A.
7. FATT (DEG.F)
8. R.T. IMPACT (FT.LB.)
9. U.S. IMPACT TEMP. (DEG.F)
10. U.S. IMPACT ENRG. (FT.LB.)
11. U.S. KIC (KSI*SQRT(IN.))

C. MATERIAL PROPERTIES (RIM)

1. Y.S. (KSI)
2. U.T.S. (KSI)
3. ELONGATION
4. B.A.
5. FATT (DEG.F)
6. R.T. IMPACT (FT.LB.)
7. U.S. IMPACT TEMP. (DEG.F)
8. U.S. IMPACT ENRG. (FT.LB.)
9. U.S. KIC (KSI*SQRT(IN.))

D. CHEMISTRY

C MN SI P CR MO V
H1 AS SB SH AL CU S

E. BORE STRESS

SPEED (RPM) STRESS
1. 1800 (KSI) []
2. 2160 (120%) (KSI) []

F. CRACK DATA (KEYWAY RADIUS (IN) [])

1. A-CR-OP (1800 RPM) (IN.) []
2. A-CR-OS (OVERSPEED) (IN.) []

G. SERVICE DATA

1. OPER. TEMP. METAL TEMP. HUB (DEG.F) []
2. ESTIMATED MAX DA/DT (IN/HR) []
3. ESTIMATED MAX DA/DT (IN/MONTH) []

I. INSPECTION STATUS

1. FIRST INSPECTION DATE []
2. OPERATING TIME AT INSPECTION (HR.) []
3. KEYWAY CRACK DEPTH (MAX.)-(IN.) []
4. BORE CRACK DEPTH (MAX.)-(IN.) []
5. DISK STATUS []

[3 INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 011281

ID # : D281100202

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 281
2. UNIT
3. CUSTOMER: EABLE #1 REP
4. LPM ALABAMA PWR.
5. LOCATION 1 GEN
6. DISC# 2
7. TEST NO. TN8881
8. ROTOR NO. TN8802
9. S.O. NO.

B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. T.S. [] (KSI))
2. SUPPLIER
3. U.T.S. (KSI)
4. ELONGATION
5. B.A.
6. FATT (DEG.F)
7. R.T. IMPACT (FT.LB.)
8. U.S. IMPACT TEMP. (DEG.F)
9. U.S. IMPACT ENG. (FT.LB.)
10. U.S. KIC (KSI*SQRT(IN.))
11. U.S. KIC (KSI*SQRT(IN.))

C. MATERIAL PROPERTIES (RIM)

1. Y.S. (KSI)
2. U.T.S. (KSI)
3. ELONGATION
4. B.A.
5. FATT (DEG.F)
6. R.T. IMPACT (FT.LB.)
7. U.S. IMPACT TEMP. (DEG.F)
8. U.S. IMPACT ENG. (FT.LB.)
9. U.S. KIC (KSI*SQRT(IN.))

D. CHEMISTRY

C MN SI P CR MQ V
NI AS SB SH AL CU S

E. BORE STRESS

SPEED (RPM) STRESS

1. 1800 (KSI)
2. 2160 (120X) (KSI)

F. CRACK DATA (KEYWAY RADIUS (IN) [])

1. A-CR-OP (1800 RPM) (IN.)
2. A-CR-OS (OVERSPEED) (IN.)

G. SERVICE DATA

1. OPER. TEMP. METAL TEMP. HUB (DEG.F)
2. ESTIMATED MAX DA/DT (IN/HR)
3. ESTIMATED MAX DA/DT (IN/MONTH)

I. INSPECTION STATUS

1. FIRST INSPECTION DATE
2. OPERATING TIME AT INSPECTION (HR.)
3. KEYWAY CRACK DEPTH (MAX.)-(IN.)
4. BORE CRACK DEPTH (MAX.)-(IN.)
5. DISK STATUS

[] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 011281

ID # : D281100202

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 281
2. UNIT FARLEY #1 REP
3. CUSTOMER: ALABAMA POWER
4. LPM 1
5. LOCATION GEN
6. DISC 3
7. TEST NO. TN8984
8. ROTOR NO. TN8802
9. S.O. NO.

B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. [] (KSI))
2. SUPPLIER
3. U.T.S. (KSI)
4. U.T.S. (KSI)
5. ELONGATION
6. R.T. IMPACT (FT.LB.)
7. U.S. IMPACT TEMP.
8. U.S. IMPACT TEMP.
9. U.S. IMPACT TEMP.
10. U.S. IMPACT TEMP.
11. U.S. KIC (KSI*SQRT(IN.))

C. MATERIAL PROPERTIES (RIM)

1. Y.S. (KSI)
2. U.T.S. (KSI)
3. ELONGATION
4. R.T. IMPACT (FT.LB.)
5. U.S. IMPACT TEMP.
6. U.S. IMPACT TEMP.
7. U.S. IMPACT TEMP.
8. U.S. IMPACT TEMP.
9. U.S. KIC (KSI*SQRT(IN.))

D. CHEMISTRY

C MN SI P CR MO V
N AS SB SN AL CU S

E. BORE STRESS

SPEED (RPM) STRESS

1. 1800 (KSI) []
2. 2160 (120X) (KSI) []

F. CRACK DATA (KEYWAY RADIUS (IN) [])

1. A-CR-OP (1800 RPM) (IN.) []
2. A-CR-OS (OVERSPEED) (IN.) []

G. SERVICE DATA

1. OPER. TEMP. METAL TEMP. HUB (DEG.F) []
2. ESTIMATED MAX DA/DT (IN/HR) []
3. ESTIMATED MAX DA/DT (IN/MONTH) []

I. INSPECTION STATUS

1. FIRST INSPECTION DATE []
2. OPERATING TIME AT INSPECTION (HR.) []
3. KEYWAY CRACK DEPTH (MAX.)-(IN.) []
4. BORE CRACK DEPTH (MAX.)-(IN.) []
5. DISK STATUS []

[] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 011281

ID # : 0281100202

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 281
2. UNIT FARLEY #1 REP
3. CUSTOMER: ALABAMA POWER
4. LP# 1
5. LOCATION GEN
6. DISC# 4
7. TEST NO. TN8983
8. ROTOR NO. TN8802
9. S.O. NO.

B. MATERIAL PROPERTIES (HUB)

1. TYPE TD
(MIN. Y.S. [] (KSI))
2. SUPPLIER []
3. Y.S. (KSI) []
4. U.T.S. (KSI) []
5. ELONGATION []
6. R.A. []
7. FAT (DEG.F) []
8. R.T. IMPACT (FT.LB.) []
9. U.S. IMPACT TEMP. (DEG.F) []
10. U.S. IMPACT ENG. (FT.LB.) []
11. U.S. KIC (KSI*SQRT(IN.)) []

C. MATERIAL PROPERTIES (RIM)

1. Y.S. (KSI) []
2. U.T.S. (KSI) []
3. ELONGATION []
4. R.A. []
5. FAT (DEG.F) []
6. R.T. IMPACT (FT.LB.) []
7. U.S. IMPACT TEMP. (DEG.F) []
8. U.S. IMPACT ENG. (FT.LB.) []
9. U.S. KIC (KSI*SQRT(IN.)) []

D. CHEMISTRY

C [] MM [] SI [] P [] CR [] MO [] V []
NI [] AS [] SB [] SN [] AL [] CU [] S []

E. BORE STRESS

SPEED (RPM) STRESS

1. 1800 (KSI) []
2. 2160 (120%) (KSI) []

F. CRACK DATA (KEYWAY RADIUS (IN) [])

1. A-CR-OP (1800 RPM) (IN.) []
2. A-CR-QS (OVERSPEED) (IN.) []

G. SERVICE DATA

1. OPER. TEMP. METAL TEMP. HUB (DEG.F) []
2. ESTIMATED MAX DA/DT (IN/HR) []
3. ESTIMATED MAX DA/DT (IN/MONTH) []

I. INSPECTION STATUS

1. FIRST INSPECTION DATE []
2. OPERATING TIME AT INSPECTION (HR.) []
3. KEYWAY CRACK DEPTH (MAX.)-(IN.) []
4. BORE CRACK DEPTH (MAX.)-(IN.) []
5. DISK STATUS []

[] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 011281

ID # : D281100202

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 281
2. UNIT: FARLEY #1 REP
3. CUSTOMER: ALABAMA PWR
4. LP#
5. LOCATION GEN
6. DISC#
7. TEST NO. IN8982
8. ROTOR NO. IN8802
9. S.O. NO.

B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. [] (KSI))
2. SUPPLY
3. V.S. (KSI)
4. U.T.S. (KSI)
5. ELONGATION
6. B.A.
7. TAT (DEG.F)
8. R.T. IMPACT (FT.LB.)
9. U.S. IMPACT TEMP. (DEG.F)
10. U.S. IMPACT ENG. (FT.LB.)
11. U.S. KIC (KSI*SQRT(IN.))

C. MATERIAL PROPERTIES (RIM)

1. V.S. (KSI)
2. U.T.S. (KSI)
3. ELONGATION
4. B.A.
5. TAT (DEG.F)
6. R.T. IMPACT (FT.LB.)
7. U.S. IMPACT TEMP. (DEG.F)
8. U.S. IMPACT ENG. (FT.LB.)
9. U.S. KIC (KSI*SQRT(IN.))

D. CHEMISTRY

C MN SI P CR MO V
NI AS SB SN AL CU S

E. BORE STRESS

SPEED (RPM) STRESS

1. 1800 (KSI) []
2. 2160 (120X) (KSI) []

F. CRACK DATA (KEYWAY RADIUS (IN) [])

1. A-CR-OP (1800 RPM) (IN.) []
2. A-CR-OS (OVERSPEED) (IN.) []

G. SERVICE DATA

1. OPER. TEMP. METAL TEMP. HUB (DEG.F)
2. ESTIMATED MAX DA/DT (IN/HR)
3. ESTIMATED MAX DA/DT (IN/MONTH)

I. INSPECTION STATUS

1. FIRST INSPECTION DATE
2. OPERATING TIME AT INSPECTION (HR.)
3. KEYWAY CRACK DEPTH (MAX.)-(IN.)
4. BORE CRACK DEPTH (MAX.)-(IN.)
5. DISK STATUS []

[] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 011281

ID # : 0281100203

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 731
2. UNIT
3. CUSTOMER: FABLEY #1 REP
4. LPM ALABAMA
5. LOCATION 2 GOV
6. DISC
7. TEST NO. 7.0973
8. ROTOR NO. N8506
9. S.O. NO.

B. MATERIAL PROPERTIES (HUB)

1. TYPE TD
(MIN. Y.S. [] (KSI))
2. SUPPLIER
3. Y.S. (KSI)
4. U.T.S. (KSI)
5. ELONGATION
6. R.A.
7. TTT (DEG.F)
8. R-T. IMPACT (FT.LB.)
9. U.S. IMPACT TEMP. (DEG.F)
10. U.S. IMPACT ENG. (FT.LB.)
11. U.S. KIC (KSI*SQRT(IN.))

C. MATERIAL PROPERTIES (RIM)

1. Y.S. (KSI)
2. U.T.S. (KSI)
3. ELONGATION
4. R.A.
5. TTT (DEG.F)
6. R-T. IMPACT (FT.LB.)
7. U.S. IMPACT TEMP. (DEG.F)
8. U.S. IMPACT ENG. (FT.LB.)
9. U.S. KIC (KSI*SQRT(IN.))

D. CHEMISTRY

C MN SI P CR MO V
NI AS SB SN AL CU S

E. BORE STRESS

SPEED (RPM) STRESS

1. 1800 (KSI) []
2. 2160 (120X) (KSI) []

F. CRACK DATA (KEYWAY RADIUS (IN) [])

1. A-CR-OP (1800 RPM) (IN.) []
2. A-CR-OS (OVERSPEED) (IN.) []

G. SERVICE DATA

1. OPER. TEMP. METAL TEMP. HUB (DEG.F)
2. ESTIMATED MAX DA/DT (IN/HR)
3. ESTIMATED MAX DA/DI (IN/MONTH)

H. INSPECTION STATUS

1. FIRST INSPECTION DATE
2. OPERATING TIME AT INSPECTION (HR.)
3. KEYWAY CRACK DEPTH (MAX.)-(IN.)
4. BORE CRACK DEPTH (MAX.)-(IN.)
5. DISK STATUS

[] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 011281

ID # : D281100203

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 281
2. UNIT
3. CUSTOMER: FARLEY #1 REP
4. LP# ALABAMA PWR
5. LOCATION 2 GOV
6. DISC# 2
7. TEST NO. TN8974
8. ROTOR NO. TN8806
9. S.O. NO.

B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. [] (KSI))
2. SUPPLIER
3. U.S. (KSI)
4. ELONGATION
5. YIELD (DEG.F)
6. R.T. IMPACT (FT.LB.)
7. U.S. IMPACT TEMP. (DEG.F)
10. U.S. IMPACT ENG. (FT.LB.)
11. U.S. KIC (KSI*SQRT(IN.))

C. MATERIAL PROPERTIES (RIM)

1. Y.S. (KSI)
2. U.S. (KSI)
3. ELONGATION
4. YIELD (DEG.F)
5. R.T. IMPACT (FT.LB.)
6. U.S. IMPACT TEMP. (DEG.F)
8. U.S. IMPACT ENG. (FT.LB.)
9. U.S. KIC (KSI*SQRT(IN.))

D. CHEMISTRY

C MN SI P CR MO V
NI AS SB SN AL CU S

E. BORE STRESS

SPEED (RPM) STRESS

1. 1800 (KSI) []
2. 2160 (120X) (KSI) []

F. CRACK DATA (KEYWAY RADIUS (IN) [])

1. A-CR-OP (1800 RPM) (IN.) []
2. A-CR-OS (OVERSPEED) (IN.) []

G. SERVICE DATA

1. OPER. TEMP. METAL TEMP. HUB (DEG.F)
2. ESTIMATED MAX DA/DT (IN/HR)
3. ESTIMATED MAX DA/DT (IN/MONTH)

I. INSPECTION STATUS

1. FIRST INSPECTION DATE
2. OPERATING TIME AT INSPECTION (HR.)
3. KEYWAY CRACK DEPTH (MAX.)-(IN.)
4. BORE CRACK DEPTH (MAX.)-(IN.)
5. DISK STATUS []

[] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 011281

ID # : D281100203

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 281
2. UNIT FARLEY #1 RFD
3. CUSTOMER: ALABAMA PWR
4. LPH 2
5. LOCATION 300V
6. DISCH
7. TEST NO. TN8507
8. ROTOR NO. TN8806
9. S.O. NO.

B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. [] (KSI))
2. SUPPLIER
3. Y.S. (KSI)
4. U.T.S. (KSI)
5. ELONGATION
6. R.T. IMPACT (DEG.F)
7. R.T. IMPACT (FT.LB.)
8. U.S. IMPACT TEMP. (DEG.F)
9. U.S. IMPACT ENG. (FT.LB.)
10. U.S. KIC (KSI*SQRT(IN.))
11. U.S. KIC (KSI*SQRT(IN.))

C. MATERIAL PROPERTIES (RIM)

1. Y.S. (KSI)
2. U.T.S. (KSI)
3. ELONGATION
4. R.T. IMPACT (DEG.F)
5. R.T. IMPACT (FT.LB.)
6. U.S. IMPACT TEMP. (DEG.F)
7. U.S. IMPACT ENG. (FT.LB.)
8. U.S. KIC (KSI*SQRT(IN.))
9. U.S. KIC (KSI*SQRT(IN.))

D. CHEMISTRY

C MN SI P CR MO V
NI AS SB SN AL CU S

E. BORE STRESS

SPEED (RPM) STRESS
1. 1800 (KSI) []
2. 2160 (120%) (KSI) []

F. CRACK DATA (KEYWAY RADIUS (IN) [])

1. A-CR-OP (1800 RPM) (IN.) []
2. A-CR-OS (OVERSPEED) (IN.) []

G. SERVICE DATA

1. OPER. TEMP. METAL TEMP. HUB (DEG.F)
2. ESTIM. MAX DA/DT (IN/HR)
3. ESTIMATED MAX DA/DT (IN/MONTH)

I. INSPECTION STATUS

1. FIRST INSPECTION DATE
2. OPERATING TIME AT INSPECTION (HR.)
3. KEYWAY CRACK DEPTH (MAX.)-(IN.)
4. BORE CRACK DEPTH (MAX.)-(IN.)
5. DISK STATUS

[] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 011281

ID # : 0281100203

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 281
2. UNIT FARLEY #1 REP
3. CUSTOMER: ALABAMA PWR.
4. LP# 2
5. LOCATION COV
6. DISC# 4
7. TEST NO. TN8029
8. ROTOR NO. TN8806
9. S.O. NO.

B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. [] (KSI))
2. SUPPLIER []
3. Y.S. []
4. U.T.S. [] (KSI)
5. ELONGATION []
6. BRA []
7. FATT (DEG.F) []
8. R.T. IMPACT (FT.LB.) []
9. U.S. IMPACT TEMP. (DEG.F) []
10. U.S. IMPACT ENG. (FT.LB.) []
11. U.S. KIC (KSI*SQRT(IN.)) []

C. MATERIAL PROPERTIES (PIV)

1. Y.S. [] (KSI)
2. U.T.S. [] (KSI)
3. ELONGATION []
4. BRA []
5. FATT (DEG.F) []
6. R.T. IMPACT (FT.LB.) []
7. U.S. IMPACT TEMP. (DEG.F) []
8. U.S. IMPACT ENG. (FT.LB.) []
9. U.S. KIC (KSI*SQRT(IN.)) []

D. CHEMISTRY

C [] MN [] SI [] P [] CR [] MO [] V []
NI [] AS [] SB [] SN [] AL [] CU [] S []

E. BORE STRESS

SPEED (RPM) STRESS

1. 1800 (KSI) []
2. 2160 (120X) (KSI) []

F. CRACK DATA (KEYWAY RADIUS (IN) [])

1. A-CR-OP (1800 RPM) (IN.) []
2. A-CR-OS (OVERSPEED) (IN.) []

G. SERVICE DATA

1. OPER. TEMP. METAL TEMP. HUB (DEG.F) []
2. ESTIMATED MAX DA/DT (IN/HR) []
3. ESTIMATED MAX DA/DT (IN/MONTH) []

I. INSPECTION STATUS

1. FIRST INSPECTION DATE []
2. OPERATING TIME AT INSPECTION (HR.) []
3. KEYWAY CRACK DEPTH (MAX.)-(IN.) []
4. BORE CRACK DEPTH (MAX.)-(IN.) []
5. DISK STATUS []

[3 INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 011281

ID # : 0281100203

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION		B. MATERIAL PROPERTIES (HUB)		C. MATERIAL PROPERTIES (RIM)	
1. BUILDING BLOCK	281	1. TYPE (MIN. V.S. [	ID (KSI))		
2. CUSTOMER:	ALABAMA REP	2. SUPPLY (KSI)			
3. LPM	2	3. U.S. S.A.			
4. LOCATION	GOV	4. ELONGATION			
5. DIST. NO.	8270	5. R-1 (DEG. F)			
6. TEST NO.	IN8806	6. R-1-IMPACT (FT-LB.)			
7. ROTOR NO.		7. U.S. IMPACT (FT-LB.)			
8. S.O. NO.		8. U.S. KIC (KSI-SQRT(IN.))			
		9. U.S. KIC (KSI-SQRT(IN.))			

D. CHEMISTRY		E. BORE STRESS		F. CRACK DATA (KEYWAY RADIUS (IN))	
1. MN		1. 1800 (KSI)		1. A-CR-OP (1800 RPM) (IN.)	
2. AS		2. 2100 (KSI)		2. A-CR-OS (OVERSPEED) (IN.)	

G. SERVICE DATA	
1. OPER. TEMP. METAL TEMP. HUB (DEG. F)	
2. ESTIMATED MAX. DROT (IN/MONTH)	
3. ESTIMATED MAX. DROT (IN/MONTH)	

H. INSPECTION STATUS	
1. FIRST INSPECTION DATE	
2. FIRST INSPECTION TIME	
3. KEYWAY CRACK DEPTH (MAX.) (IN.)	
4. BORE CRACK DEPTH (MAX.) (IN.)	
5. DISK STATUS	

[] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 011281

ID # : D281100204

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 281
2. UNIT 21 REP
3. CUSTOMER: FARET 21 REP
4. LPN ALABAMA PWR
5. LOCATION 2 GEN
6. DISC NO. 1
7. YESS NO. TN8975
8. ROTOR NO. TN8806
9. S.O. NO.

B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. V.S. E TO
2. SUPPLIER (KSI))
3. U.S. (KSI)
4. U.S. (KSI)
5. ELONGATION
6. FATI (DEG.F)
7. R.T. IMPACT (FT.LB.)
8. U.S. IMPACT TEMP. (DEG.F)
9. U.S. IMPACT (FT.LB.)
10. U.S. IMPACT (FT.LB.)
11. U.S. KIC (KSI*SQRT(IN.))

C. MATERIAL PROPERTIES (RIM)

1. Y.S. (KSI)
2. U.T.S. (KSI)
3. ELONGATION
4. FATI (DEG.F)
5. R.T. IMPACT (FT.LB.)
6. U.S. IMPACT TEMP. (DEG.F)
7. U.S. IMPACT (FT.LB.)
8. U.S. IMPACT (FT.LB.)
9. U.S. KIC (KSI*SQRT(IN.))

D. CHEMISTRY

C MN SI P CR MO V
NI AS SB SN AL CU S

E. BORE STRESS

SPEED (RPM) STRESS
1. 1800 (KSI) []
2. 2160 (120X) (KSI) []

F. CRACK DATA (KEYWAY RADIUS (IN) [])

1. A-CR-OP (1800 RPM) (IN.) []
2. A-CR-OS (OVERSPEED) (IN.) []

G. SERVICE DATA

1. OPER. TEMP. METAL TEMP. HUB (DEG.F)
2. ESTIMATED MAX DA/DI (IN/HR)
3. ESTIMATED MAX DA/DI (IN/MONTH)

I. INSPECTION STATUS

1. FIRST INSPECTION DATE
2. OPERATING TIME AT INSPECTION (HR.)
3. KEYWAY CRACK DEPTH (MAX.)-(IN.)
4. BORE CRACK DEPTH (MAX.)-(IN.)
5. DISK STATUS

[] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 011281

ID # : 0281100204

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 281
2. UNIT FARLEY #1 REP
3. CUSTOMER: ALABAMA PWR.
4. LP# 2
5. LOCATION DEN
6. DISC# 2
7. TEST NO. IN8078
8. ROTOR NO. IN8806
9. S.O. NO.

B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. [] (KSI))
2. SUPPLIER (KSI)
3. U.S. (KSI)
4. U.S. (KSI)
5. ELONGATION
6. B.A. (DEG.F)
7. FATT (DEG.F)
8. R.T. IMPACT (FT.LB.)
9. U.S. IMPACT TEMP. (DEG.F)
10. U.S. IMPACT ENG. (FT.LB.)
11. U.S. KIC (KSI*SQRT(IN.))

C. MATERIAL PROPERTIES (RIM)

1. Y.S. (KSI)
2. U.S. (KSI)
3. ELONGATION
4. B.A. (DEG.F)
5. FATT (DEG.F)
6. R.T. IMPACT (FT.LB.)
7. U.S. IMPACT TEMP. (DEG.F)
8. U.S. IMPACT ENG. (FT.LB.)
9. U.S. KIC (KSI*SQRT(IN.))

D. CHEMISTRY

C MN SI P CR MO V
NI AS SB SN AL CU S

E. BORE STRESS

SPEED (RPM) STRESS

1. 1800 (KSI) []
2. 2160 (120X) (KSI) []

F. CRACK DATA (KEYWAY RADIUS (IN) [])

1. A-CR-OP (1800 RPM) (IN.) []
2. A-CR-OS (OVERSPEED) (IN.) []

G. SERVICE DATA

1. OPER. TEMP. METAL TEMP. HUB (DEG.F) []
2. ESTIMATED MAX DA/DT (IN/HR) []
3. ESTIMATED MAX DA/DT (IN/MONTH) []

H. INSPECTION STATUS

1. FIRST INSPECTION DATE []
2. OPERATING TIME AT INSPECTION (HR.) []
3. KEYWAY CRACK DEPTH (MAX.)-(IN.) []
4. BORE CRACK DEPTH (MAX.)-(IN.) []
5. DISK STATUS []

E] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 011281

ID # : 0281100204

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 281
2. UNIT FARLEY #1 REP
3. CUSTOMER: ALABAMA PWR
4. LPH 2
5. LOCATION GEN
6. DISC#
7. TEST NO. TN8979
8. ROTOR NO. TN8806
9. S.O. NO.

B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. [] (KSI))
2. SUPPLIER
3. U.T.S. (KSI)
4. ELONGATION
5. FATT (DEG.F)
6. R.T. IMPACT (FT.LB.)
7. U.S. IMPACT TEMP. (DEG.F)
10. U.S. IMPACT ENG. (FT.LB.)
11. U.S. KIC (KSI*SQRT(IN.))

C. MATERIAL PROPERTIES (RIM)

1. Y.S. (KSI)
2. U.T.S. (KSI)
3. ELONGATION
4. FATT (DEG.F)
5. R.T. IMPACT (FT.LB.)
6. U.S. IMPACT TEMP. (DEG.F)
8. U.S. IMPACT ENG. (FT.LB.)
9. U.S. KIC (KSI*SQRT(IN.))

D. CHEMISTRY

C MN SI P CR MO V
NI AS SB SH AL CU S

E. BORE STRESS

SPEED (RPM) STRESS

1. 1800 (KSI) []
2. 2160 (120%) (KSI) []

F. CRACK DATA (KEYWAY RADIUS (IN) [])

1. A-CR-OP (1800 RPM) (IN.) []
2. A-CR-OS (OVERSPEED) (IN.) []

G. SERVICE DATA

1. OPER. TEMP. METAL TEMP. HUB (DEG.F) []
2. ESTIMATED MAX DA/DT (IN/HR) []
3. ESTIMATED MAX DA/DT (IN/MONTH) []

I. INSPECTION STATUS

1. FIRST INSPECTION DATE []
2. OPERATING TIME AT INSPECTION (HR.) []
3. KEYWAY CRACK DEPTH (MAX.)-(IN.) []
4. BORE CRACK DEPTH (MAX.)-(IN.) []
5. DISK STATUS []

[] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 011281

ID # : D281100204

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 281
2. UNIT
3. CUSTOMER: EABLEY #1 REP.
4. LP# ALABAMA PWR.
5. LOCATION 2 GEN
6. DISC#
7. TEST NO. Y49008
8. ROTOR NO. TN8806
9. S.O. NO.

B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. [] (KSI))
2. SUPPLIED
3. Y.S. (KSI)
4. U.T.S. (KSI)
5. ELONGATION
6. Y.A.T. (DEG.F)
7. R.T. IMPACT (FT.LB.)
8. U.S. IMPACT TEMP. (DEG.F)
9. U.S. IMPACT ENG. (FT.LB.)
10. U.S. KIC (KSI*SQRT(IN.))
11. U.S. KIC (KSI*SQRT(IN.))

C. MATERIAL PROPERTIES (RIM)

1. Y.S. (KSI)
2. U.T.S. (KSI)
3. ELONGATION
4. R.T. IMPACT (DEG.F)
5. Y.A.T. (DEG.F)
6. R.T. IMPACT (FT.LB.)
7. U.S. IMPACT TEMP. (DEG.F)
8. U.S. IMPACT ENG. (FT.LB.)
9. U.S. KIC (KSI*SQRT(IN.))

D. CHEMISTRY

C MN SI P CR MO V
NI AS SB SN AL CU S

E. BORE STRESS

SPEED (RPM) STRESS

1. 1800 (KSI) []
2. 2160 (120%) (KSI) []

F. CRACK DATA (KEYWAY RADIUS (IN) [])

1. A-CR-OP (1800 RPM) (IN.) []
2. A-CR-OS (OVERSPEED) (IN.) []

G. SERVICE DATA

1. OPER. TEMP. METAL TEMP. HUB (DEG.F) []
2. ESTIMATED MAX DA/DT (IN/HR) []
3. ESTIMATED MAX DA/DT (IN/MONTH) []

I. INSPECTION STATUS

1. FIRST INSPECTION DATE []
2. OPERATING TIME AT INSPECTION (HR.) []
3. KEYWAY CRACK DEPTH (MAX.)-(IN.) []
4. BORE CRACK DEPTH (MAX.)-(IN.) []
5. DISK STATUS []

[] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 011281

ID # : 0281100204

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 281
2. UNIT FARLEY #1 REP
3. CUSTOMER: ALABAMA PWR.
4. LP#
5. LOCATION DEN
6. DISC#
7. TEST NO. IN8977
8. ROTOR NO. IN8806
9. S.O. NO.

B. MATERIAL PROPERTIES (HUB)

1. TYPE TD
(MIN. T.S. [](KSI))
2. SUPPLIER
3. U.S. (KSI)
4. ELONGATION
5. YIELD (DEG.F)
6. R.T. IMPACT (FT.LB.)
7. U.S. IMPACT TEMP.
(DEG.F)
10. U.S. IMPACT ENG. []
(FT.LB.)
11. U.S. KIC []
(KSI*SQRT(IN.))

C. MATERIAL PROPERTIES (RIM)

1. U.S. (KSI)
2. U.S. (KSI)
3. ELONGATION
4. YIELD (DEG.F)
5. R.T. IMPACT (FT.LB.)
6. U.S. IMPACT TEMP.
(DEG.F)
8. U.S. IMPACT ENG. []
(FT.LB.)
9. U.S. KIC []
(KSI*SQRT(IN.))

D. CHEMISTRY

C MN SI P CR MO V
Ni AS SB SH AL CU S

E. BORE STRESS

SPEED (RPM) STRESS
1. 1800 (KSI) []
2. 2160 (120%) (KSI) []

F. CRACK DATA (KEYWAY RADIUS (IN) [])

1. A-CR-OP (1800 RPM) (IN.) []
2. A-CR-OS (OVERSPEED) (IN.) []

G. SERVICE DATA

1. OPER. TEMP. METAL TEMP. HUB (DEG.F) []
2. ESTIMATED MAX DA/DI (IN/HR) []
3. ESTIMATED MAX DA/DI (IN/MONTH) []

I. INSPECTION STATUS

1. FIRST INSPECTION DATE []
2. OPERATING TIME AT INSPECTION (HR.) []
3. KEYWAY CRACK DEPTH (MAX.)-(IN.) []
4. BORE CRACK DEPTH (MAX.)-(IN.) []
5. DISK STATUS []

March 14, 1980

Darrell G. Eisenhut
Division of Operating Reactors
Office of Nuclear Reactor Regulation
US Nuclear Regulatory Commission
Washington DC 20555

APPLICATION FOR WITHHOLDING PROPRIETARY
INFORMATION FROM PUBLIC DISCLOSURE

Subject: Farley #1 Docket #50-348
Information in Response to NRC Request for Information of
February 25, 1980, Relative to Low Pressure Turbine Disc
Integrity.

Reference: Appendix A letter from F. L. Clayton, Jr. to Eisenhut, dated
3/17/80

Dear Mr. Eisenhut:

This application for withholding is submitted by Westinghouse Electric Corporation ("Westinghouse") pursuant to the provisions of paragraph (b)(1) of Section 2.790 of the Commission's regulations. Withholding from public disclosure is requested with respect to the subject information which is further identified in the affidavit accompanying this application.

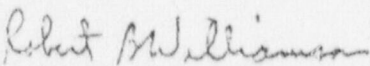
The undersigned has reviewed the information sought to be withheld and is authorized to apply for its withholding on behalf of Westinghouse, STG-TOD.

The affidavit accompanying this application sets forth the basis on which the information may be withheld from public disclosure by the Commission and addresses with specificity the considerations listed in paragraph (b)(4) of Section 2.790 of the Commission's regulations.

Accordingly, it is respectfully requested that the subject information which is proprietary to Westinghouse and which is further identified in the affidavit be withheld from public disclosure in accordance with 10CFR Section 2.790 of the Commission's regulations.

Correspondence with respect to this application for withholding or the accompanying affidavit should be addressed to the undersigned.

Very truly yours,


R. Williamson, Manager
Customer Order Engineering
Westinghouse Electric Corporation

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF DELAWARE:

Before me, the undersigned authority, personally appeared Robert Williamson, who, being by me duly sworn according to law, deposes and says that he is authorized to execute this Affidavit on behalf of Westinghouse Electric Corporation ("Westinghouse") and that the averments of fact set forth in this Affidavit are true and correct to the best of his knowledge, information, and belief:

Robert B Williamson
Robert Williamson, Manager
Customer Order Engineering

Sworn to and subscribed before me
this 15th day of November 1980.

Henry E. Squillace

HENRY E. SQUILLACE

Notary Public, Marple Twp., Delaware Co.
My Commission Expires Oct. 18, 1980

- (1) I am Manager, Customer Order Engineering in the Steam Turbine Generator Technical Operations Division of Westinghouse Electric Corporation and as such, I have been specifically delegated the function of reviewing the proprietary information sought to be withheld from public disclosure in connection with nuclear power plant licensing, and am authorized to apply for its withholding on behalf of the Westinghouse Power Generation Divisions.
- (2) I am making this Affidavit in conformance with the provisions of 10 CFR Section 2.790 of the Commission's regulations and in conjunction with the Westinghouse application for withholding accompanying this Affidavit.
- (3) I have personal knowledge of the criteria and procedures utilized by Westinghouse Power Generation Divisions in designating information as a trade secret, privileged or as confidential commercial or financial information.
- (4) Pursuant to the provisions of paragraph (b)(4) of Section 2.790 of the Commission's regulations, the following is furnished for consideration by the Commission in determining whether the information sought to be withheld from public disclosure should be withheld.
 - (i) The information sought to be withheld from public disclosure is owned and has been held in confidence by Westinghouse.
 - (ii) The information is of a type customarily held in confidence by Westinghouse and not customarily disclosed to the public. Westinghouse has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, utilizes a system to determine when and whether to hold certain types of information in confidence. The application of that system and the substance of that system constitutes Westinghouse policy and provides the rational basis required.

Under that system, information is held in confidence if it falls in one or more of several types, the release of which might result in the loss of an existing or potential competitive advantage, as follows:

- (a) The information reveals the distinguishing aspects of a process (or component, structure, tool, method, etc.) where prevention of its use by any of Westinghouse's competitors without license from Westinghouse constitutes a competitive economic advantage over other companies.
- (b) It consists of supporting data, including test data, relative to a process (or component, structure, tool, method, etc.), the application of which data secures a competitive economic advantage, e.g., by optimization or improved marketability.
- (c) Its use by a competitor would reduce his expenditure of resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing a similar product.
- (d) It reveals cost or price information, production capacities, budget levels, or commercial strategies of Westinghouse, its customers or suppliers.
- (e) It reveals aspects of past, present, or future Westinghouse or customer funded development plans and programs of potential commercial value to Westinghouse.
- (f) It contains patentable ideas, for which patent protection may be desirable.
- (g) It is not the property of Westinghouse, but must be treated as proprietary by Westinghouse according to agreements with the owner.

- (h) Public disclosure of this information would allow unfair and untruthful judgments on the performance and reliability of Westinghouse equipment components and improper comparison with similar components made by competitors.

There are sound policy reasons behind the Westinghouse system which include the following:

- (a) The use of such information by Westinghouse gives Westinghouse a competitive advantage over its competitors. It is, therefore, withheld from disclosure to protect the Westinghouse competitive position.
- (b) It is information which is marketable in many ways. The extent to which such information is available to competitors diminishes the Westinghouse ability to sell products and services involving the use of the information.
- (c) Use by our competitor would put Westinghouse at a competitive disadvantage by reducing his expenditure of resources at our expense.
- (d) Each component of proprietary information pertinent to a particular competitive advantage is potentially as valuable as the total competitive advantage. If competitors acquire components of proprietary information, any one component may be the key to the entire puzzle, thereby depriving Westinghouse of a competitive advantage.
- (e) Unrestricted disclosure would jeopardize the position of prominence of Westinghouse in the world market, and thereby give a market advantage to the competition in those countries.

- (f) The Westinghouse capacity to invest corporate assets in research and development depends upon the success in obtaining and maintaining a competitive advantage.
- (iii) The information is being transmitted to the Commission in confidence and, under the provisions of 10 CFR Section 2.790, it is to be received in confidence by the Commission.
- (iv) The information is not available in public sources to the best of our knowledge and belief.
- (v) The proprietary information sought to be withheld in this submittal is that which is appropriately marked in Appendix A to letter from F. L. Clayton, Jr. to Eisenhut, dated March 17, 1980 concerning information in response to NRC request for information of February 25, 1980, relative to low pressure turbine disc integrity.

The information enables Westinghouse to:

- (a) Develop test inputs and procedures to satisfactorily verify the design of Westinghouse supplied equipment.
- (b) Assist its customers to obtain licenses.

Further, the information has substantial commercial value as follows.

- (a) Westinghouse can sell the use of this information to customers.
- (b) Westinghouse uses the information to verify the design of equipment which is sold to customers.

(c) Westinghouse can sell services based upon the experience gained and the test equipment and methods developed.

Public disclosure of this information is likely to cause substantial harm to the competitive position of Westinghouse because it would enhance the ability of competitors to design, manufacture, verify, and sell electrical equipment for commercial turbine-generators without commensurate expenses. Also, public disclosure of the information would enable others having the same or similar equipment to use the information to meet NRC requirements for licensing documentation without purchasing the right to use the information.

The development of the equipment described in part by the information is the result of many years of development by Westinghouse and the expenditure of a considerable sum of money.

This could only be duplicated by a competitor if he were to invest similar sums of money and provided he had the appropriate talent available and could somehow obtain the requisite experience.

Further the deponent sayeth not.