



**LOUISIANA**  
**POWER & LIGHT**

142 DELARONDE STREET  
P O BOX 6008 • NEW ORLEANS, LOUISIANA 70174 • (504) 386-2345

MAY 27 1981

W3P81-1334  
3-N31



Mr. R. L. Tedesco  
Assistant Director for Licensing  
U.S. Nuclear Regulatory Commission  
Washington, D. C. 20555

SUBJECT: Waterford Steam Electric Station - Unit 3  
Docket No. 50-382  
Turbine Disc Integrity

ENCLOSURE: "LP Turbine Disc Information" (Non-proprietary)

REFERENCE: LP&L letter, L. V. Maurin to R. L. Tedesco,  
W3P81-1280, dated May 14, 1981

Dear Mr. Tedesco:

The referenced letter transmitted material that will be incorporated into the FSAR to address the open item described in Draft SER Section 10.2.3.

In addition to this material we will also include in the FSAR the non-proprietary version of the attachment to Enclosure 1 of the referenced letter.

This non-proprietary version of "LP Turbine Disc Information" is enclosed for your information.

Yours very truly,

L. V. Maurin  
Assistant Vice President  
Nuclear Operations

LVM/MPF/dt

Attachment

cc: Mr. E. L. Blake  
Mr. W. M. Stevenson

Boo!  
S  
1/1

8105280207

A

( ) INDICATES WESTINGHOUSE PROPRIETARY LEVELS B, C, E

DATE OF REPORT = 012281

10 # : 0280106201

## LP TURBINE DTSC INFORMATION

[illegible]

## D. CHEMISTRY

D. CHEMISTRY

## E. MORE STRESS

E. BORE STRESS SPEED (RPM)	STRESS	F. CRACK DATA (KEYWAY RADIUS (IN))
1. 1800	(ASH)	A-CR-OP (1800 RPM) (IN.)
2. 2100	(ASH)	A-CR-OS (OVERSPEED) (IN.)

## 6. SERVICE DATA

1. OPER. TEMP. METAL TEMP. HUB (DEG.F) 6  
2. ESTIMATED MAX OA/DT (IN/HR) 1  
3. ESTIMATED MAX OA/DT (IN/MONTH) 1

## 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 : 012281

ID # : 0280106201

### LP TURBINE DISC INFORMATION

#### A. UNIT IDENTIFICATION

1. BUILDING BLOCK 280  
2. UNIT WATERFORD #3  
3. CUSTOMER: LOUISIANA PUR. & LT.  
4. LPM 1  
5. LOCATION GOV  
6. DISC 2  
7. TEST NO. IN6281  
8. ROTOR NO.  
9. S.O. NO.

#### B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. [ ] (KSI))  
2. SUPPLIER: MIDVALE HEPPENSTALL  
3. Y.S. (KSI)  
4. U.T.S. (KSI)  
5. ELONGATION  
6. P.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. P.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 (1300 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) [ ]

#### 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 : 012281

ID # : 0280106201

### LP TURBINE DISC INFORMATION

#### A. UNIT IDENTIFICATION

1. BUILDING BLOCK 280  
2. UNIT WATERFORD #3  
3. CUSTOMER: LOUISIANA PWR. & LT.  
4. LP# 1  
5. LOCATION 60V  
6. DISC# 3  
7. TEST NO. TH6338  
8. ROTOR NO.  
9. S.O. NO.

#### B. MATERIAL PROPERTIES (HUB)

1. TYPE 117.  
(MIN. Y.S. [ ] (KSI))  
2. SUPPLIER: MIDVALE HEPPESTALL  
3. Y.S. (KSI)  
4. U.T.S. (KSI)  
5. ELONGATION  
6. R.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. R.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 [ ] SW [ ] 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 : 012281

ID # : 0280106201

### LP TURBINE DISC INFORMATION

#### A. UNIT IDENTIFICATION

1. BUILDING BLOCK 280  
2. UNIT WATERBORD #3  
3. CUSTOMER: LOUISIANA PUR. & LT.  
4. LP# 1  
5. LOCATION GOV  
6. DISC# 4  
7. TEST NO. TN6321  
8. ROTOR NO.  
9. S.O. NO.

#### B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. (KSI)) TC  
2. SUPPLIER: BETHLEHEM STEEL  
3. Y.S. (KSI)  
4. U.T.S. (KSI)  
5. ELONGATION  
6. R.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. R.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 NI V  
NT 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)

#### 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

DATE OF REPORT : 012281

ID #: 0280106201

## AP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION		B. MATERIAL PROPERTIES (HUB)		C. MATERIAL PROPERTIES (RIM)	
1. BUILDING BLOCK	250	1. TYPE	2. SUPPLIER	1. TYPE	2. SUPPLIER
2. UNIT	MATERIAL NO. #1	1. TYPE	2. SUPPLIER	1. TYPE	2. SUPPLIER
3. CUSTOMER	LOUISIANA PUR-	1. TYPE	2. SUPPLIER	1. TYPE	2. SUPPLIER
4. L.P.	GOV	1. TYPE	2. SUPPLIER	1. TYPE	2. SUPPLIER
5. LOCATION		1. TYPE	2. SUPPLIER	1. TYPE	2. SUPPLIER
6. DISC		1. TYPE	2. SUPPLIER	1. TYPE	2. SUPPLIER
7. TEST NO.	YM0599	1. TYPE	2. SUPPLIER	1. TYPE	2. SUPPLIER
8. ROTOR NO.		1. TYPE	2. SUPPLIER	1. TYPE	2. SUPPLIER
9. S.O. NO.		1. TYPE	2. SUPPLIER	1. TYPE	2. SUPPLIER

## D. CHEMISTRY

	C	MH	SF	P	IR	MO	V
( )	( )	( )	( )	( )	( )	( )	( )
IN	AS	SD	SW	A	CH	S	
( )	( )	( )	( )	( )	( )	( )	( )

## E. 809E STRESS

SPEED (RPM)	STRESS
1-1800	(KSI) {
2-2160	(KSI) {

## G. SERVICE DATA

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

## 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. DISC STATUS

[ ] INDICATES WESTINGHOUSE PROPRIETARY  
LEVELS B,C,E

DATE OF REPORT : 012281

ID # : 0280106202

# LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION		B. MATERIAL PROPERTIES (HUB)		C. MATERIAL PROPERTIES (RIM)	
1. BUILDING BLOCK	280	1. TYPE	(KSI)	1. Y-S.	(KSI)
2. UNIT	WATERFORD #1	2. MIN. Y-S.	(KSI)	2. U-T-S.	(KSI)
3. CUSTOMER	LOUISIANA PUR. & LT.	3. SUPPLIER	UNITED STATES STEEL	3. ELONGATION	
4. LPH	1	4. Y-S.	(KSI)	4. R.A.	
5. LOCATION	GEN	5. U-T-S.	(KSI)	5. FATT (DEG-F)	
6. DISC	1	6. ELONGATION		6. R-I.	IMPACT (FT-LB.)
7. TEST NO.	YN6354	7. FATT (DEG-F)		7. U-S.	IMPACT TEMP.
8. ROTOR NO.		8. R-I.	IMPACT (FT-LB.)	8. U-S.	IMPACT ENG.
9. S.O. NO.		9. U-S.	IMPACT TEMP.	9. U.S. KIC	(FT-LB.)
		10. U-S.	IMPACT ENG.		(KSI+SORI(IN.))
		11. U-S. KIC	(FT-LB.)		
			(KSI+SORI(IN.))		

## D. CHEMISTRY

1. C	2. MN	3. SI	4. P	5. MO	6. V
7. NI	8. AS	9. SB	10. SN	11. CH	12. S

## E. BORE STRESS

SPEED (RPM)	STRESS	F. CRACK DATA (KEYWAY RADIUS (IN))
1. 1800	(KSI)	1. A-CR-OP (1800 RPM) (IN.)
2. 2160 (120X)	(KSI)	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/HOUR)	

## 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. DISC STATUS	

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## LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION		B. MATERIAL PROPERTIES (HUB)		C. MATERIAL PROPERTIES (RIM)	
1. BUILDING BLOCK	280	1. TYPE	Y-S. (KSI)	1. TYPE	Y-S. (KSI)
2. UNIT	WATERFORD #3	2. SUPPLIER:	MIDVALE HEPENSTALL	2. SUPPLIER:	MIDVALE HEPENSTALL
3. CUSTOMER:	LOUISIANA PUR. & LT.	3. Y-S. (KSI)	Y-S. (KSI)	3. Y-S. (KSI)	Y-S. (KSI)
4. LPM	1	4. U-T-S. (KSI)	U-T-S. (KSI)	4. U-T-S. (KSI)	U-T-S. (KSI)
5. LOCATION	GEN	5. ELONGATION	ELONGATION	5. ELONGATION	ELONGATION
6. DISC	2	6. B.A.	B.A.	6. B.A.	B.A.
7. TEST NO.	1M6283	7. FAT (DEG. F)	FAT (DEG. F)	7. FAT (DEG. F)	FAT (DEG. F)
8. ROTOR NO.		8. R-T. IMPACT (FT-LB.)	R-T. IMPACT (FT-LB.)	8. R-T. IMPACT (FT-LB.)	R-T. IMPACT (FT-LB.)
9. S.O. NO.		9. U-S. IMPACT (DEG. F)	U-S. IMPACT (DEG. F)	9. U-S. IMPACT (DEG. F)	U-S. IMPACT (DEG. F)
		10. U-S. IMPACT ENG. (FT-LB.)	U-S. IMPACT ENG. (FT-LB.)	10. U-S. IMPACT ENG. (FT-LB.)	U-S. IMPACT ENG. (FT-LB.)
		11. U-S. R.T. (KSI-SQ-IN.)	U-S. R.T. (KSI-SQ-IN.)	11. U-S. R.T. (KSI-SQ-IN.)	U-S. R.T. (KSI-SQ-IN.)

D. CHEMISTRY											
C	HN	SI	P	CR	MO	V					
( )	( )	( )	( )	( )	( )	( )					
NI	AS	SH	SM	NI	CU	S					
( )	( )	( )	( )	( )	( )	( )					

  

E. CORE STRESS		F. CRACK DATA (KEYWAY RADIUS (IN))	
SPEED (RPM)	STRESS (PSI)		
1. 1800	(PSI)		
2. 2160 (120X)	(PSI)		

6. SERVICE DATA

	TEMP - METAL TEMP - HUB (DEG.F)
1 - OPER -	
2 - ESTIMATED MAX DAY/T (IN/HR)	
3 - ESTIMATED MAX DAY/T (IN/MONTH)	

1. 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 : 012281

ID # : 0280106202

### LP TURBINE DISC INFORMATION

#### A. UNIT IDENTIFICATION

1. BUILDING BLOCK 280  
2. UNIT WATERFORD #3  
3. CUSTOMER: LOUISIANA PWR. & LT.  
4. LPM 1  
5. LOCATION GEN  
6. DISC 3  
7. TEST NO. TN6335  
8. ROTOR NO.  
9. S.O. NO.

#### B. MATERIAL PROPERTIES (HUB)

1. TYPE TO  
(MIN. Y.S. (KSI))  
2. SUPPLIER: MIDVALE HERPENSTAL  
3. Y.S. (KSI)  
4. U.T.S. (KSI)  
5. ELONGATION  
6. R.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. R.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/HOUR) [ ]

#### 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 : 012281

ID # : 0280106202

# LP TURBINE DISC INFORMATION

## A. UNIT IDENTIFICATION

1. BUILDING BLOCK 280  
2. UNIT WATERFORD #3  
3. CUSTOMER: LOUISIANA PWR. & LT.  
4. LPP 1  
5. LOCATION GEN  
6. DISC 4  
7. TEST NO. TN6320  
8. ROTOR NO.  
9. S.O. NO.

## B. MATERIAL PROPERTIES (HUB)

1. TYPE TC  
(MIN. Y.S. [ ] (KSI))  
2. SUPPLIER: BETHLEHEM STEEL  
3. Y.S. (KSI) [ ]  
4. U.T.S. (KSI) [ ]  
5. ELONGATION [ ]  
6. R.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. R.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 : 012281

ID # : D280106202

### LP TURBINE DISC INFORMATION

#### A. UNIT IDENTIFICATION

1. BUILDING BLOCK 280  
2. UNIT WATERFORD B3  
3. CUSTOMER: LOUISIANA PUR. & LT.  
4. LPT 1  
5. LOCATION GEN  
6. DISC 5  
7. TEST NO. IN6598  
8. ROTOR NO.  
9. S.O. NO.

#### B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. [ ] (KSI)) TC  
2. SUPPLIER: MIDVALE HEPPENSTALL  
3. Y.S. (KSI)  
4. U.T.S. (KSI)  
5. ELONGATION  
6. R.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. R.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. 2100 (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. DISC STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY  
LEVELS B,C,E

DATE OF REPORT : 012281

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# LP TURBINE DISC INFORMATION

## A. UNIT IDENTIFICATION

1. BUILDING BLOCK 280

2. UNIT WATERFORD #3

3. CUSTOMER: LOUISIANA PWR. & LT.

4. LPA 2

5. LOCATION GOV

6. DISC 1

7. TEST NO. TN6356

8. ROTOR NO.

9. S.O. NO.

## B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. [ ] (KSI))

2. SUPPLIER: UNITED STATES STEEL

3. Y.S. (KSI) [ ]

4. U.T.S. (KSI) [ ]

5. ELONGATION [ ]

6. R.A. [ ]

7. FATI (DEG.F) [ ]

8. R-I. 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. FATI (DEG.F) [ ]

6. R-I. 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 [ ] SO [ ] 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 : 012281

ID # : D280106203

### LP TURBINE DISC INFORMATION

#### A. UNIT IDENTIFICATION

1. BUILDING BLOCK 280  
2. UNIT WATERFORD #3  
3. CUSTOMER: LOUISIANA PWR. & LT.  
4. LPA 2  
5. LOCATION GOV  
6. DISC# 2  
7. TEST NO. TN6285  
8. ROTOR NO.  
9. S.O. NO.

#### B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. [ ] (KSI))  
2. SUPPLIER: MIDVALE HEPPESTALL  
3. Y.S. (KSI)  
4. U.T.S. (KSI)  
5. ELONGATION  
6. R.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. R.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, SH, AL, CU, S

#### E. ROTOR STRESS

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

#### F. CRACK DATA (KEYWAY RADII) (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. RISK STATUS

[ ] INDICATES WESTINGHOUSE PROPRIETARY  
LEVELS B,C,E

DATE OF REPORT : 012281

ID # : D280106203

### LP TURBINE DISC INFORMATION

#### A. UNIT IDENTIFICATION

1. BUILDING BLOCK 280

2. UNIT WATERFORD #3

3. CUSTOMER: LOUISIANA PWR. & LT.

4. LP# 2

5. LOCATION GOV

6. DISC# 3

7. TEST NO. TN6349

8. ROTOR NO.

9. S.O. NO.

#### B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. (KSI))

2. SUPPLIER: MIDVALE HEPPENSTALL

3. Y.S. (KSI)

4. U.T.S. (KSI)

5. ELONGATION

6. R.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. R.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 SM 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/HOMIN)

#### 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 : 012281

ID # : 0280106203

### LP TURBINE DISC INFORMATION

#### A. UNIT IDENTIFICATION

1. BUILDING BLOCK 280  
2. UNIT WATERFORD #3  
3. CUSTOMER: LOUISIANA PUR. & LT.  
4. LP#  
5. LOCATION 2 GOV  
6. DISC# 4  
7. TEST NO. TN6322  
8. ROTOR NO.  
9. S.O. NO.

#### B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. (KSI)) TC  
2. SUPPLIER: BETHLEHEM STEEL  
3. Y.S. (KSI)  
4. U.T.S. (KSI)  
5. ELONGATION  
6. R.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. R.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 [ ] SM [ ] 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 : 012281

ID # : 0280106203

# LP TURBINE DISC INFORMATION

## C. MATERIAL PROPERTIES (RIM)

## B. MATERIAL PROPERTIES (HUB)

## A. UNIT IDENTIFICATION

1. BUILDING BLOCK	220	1. TYPE	(KSI)	IC
2. UNIT	WATERFORD HT	2. SUPPLIER	(KSI)	
3. CUSTOMER	LOUISIANA PUR. & LY.	3. Y-S. (KSI)	1. Y-S. (KSI)	
4. LP#	2	4. U-T-S. (KSI)	2. U-T-S. (KSI)	
5. LOCATION	60V	5. ELONGATION	3. ELONGATION	
6. DISC#	5	6. R-A	4. R-A	
7. TEST NO.	IN6342	7. FATI (DEG.F)	5. FATI (DEG.F)	
8. ROTOR NO.		8. R-T. IMPACT (FT-LB.)	6. R-T. IMPACT (FT-LB.)	
9. S.O. NO.		9. U.S. IMPACT (DEG.F)	7. U.S. IMPACT (DEG.F)	
		10. U-S. IMPACT ENG. (FT-LB.)	8. U-S. IMPACT ENG. (FT-LB.)	
		11. U.S. KIC (KSI-SQRT(IN.))	9. U.S. KIC (KSI-SQRT(IN.))	

## D. CHEMISTRY

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

## F. BORE STRESS

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

## G. SERVICE DATA

1. OPER. TEMP. METAL TEMP. HUB (DEG.F)	
2. ESTIMATED MAX OA/DI (IN/MONTH)	
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 : 012281

ID # : 0280106204

### LP TURBINE DISC INFORMATION

#### A. UNIT IDENTIFICATION

1. BUILDING BLOCK 280  
2. UNIT WATERFORD #3  
3. CUSTOMER: LOUISIANA PWR. & LT.  
4. LP# 2  
5. LOCATION GEN  
6. DISC# 1  
7. TEST NO. TN6355  
8. ROTOR NO.  
9. S.O. NO.

#### B. MATERIAL PROPERTIES (HUB)

1. TYPE MIN. Y.S. [ ] (KSI)  
2. SUPPLIER: UNITED STATES STEEL  
3. Y.S. (KSI)  
4. U.T.S. (KSI)  
5. ELONGATION  
6. R.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. R.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 (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 OA/OT (IN/HR) [ ]  
3. ESTIMATED MAX OA/OT (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 : 012281

ID # : D280106204

### LP TURBINE DISC INFORMATION

#### A. UNIT IDENTIFICATION

1. BUILDING BLOCK 280  
2. UNIT WATERFORD #3  
3. CUSTOMER: LOUISIANA PWR. & LT.  
4. LPT 2  
5. LOCATION 6EN  
6. DISC# 2  
7. TEST NO. IN0343  
8. ROTOR NO.  
9. S.O. NO.

#### B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. [ ] (KSI))  
2. SUPPLIER: MIDVALE HERPENSTALL  
3. Y.S. (KSI) [ ]  
4. U.T.S. (KSI) [ ]  
5. ELONGATION [ ]  
6. R.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. R.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 [ ] SO [ ] SM [ ] 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 : 012281

ID # : D280106204

### LP TURBINE DISC INFORMATION

#### A. UNIT IDENTIFICATION

1. BUILDING BLOCK 280  
2. UNIT WATERFORD #3  
3. CUSTOMER: LOUISIANA PWR. & LT.  
4. LPM 2  
5. LOCATION GEN  
6. DISC IN6344  
7. TEST NO.  
8. ROTOR NO.  
9. S.O. NO.

#### B. MATERIAL PROPERTIES (HUB)

1. TYPE TO  
(MIN. Y.S. [ ] (KSI))  
2. SUPPLIER: MIDVALE HEPPENSTALL  
3. Y.S. (KSI)  
4. U.T.S. (KSI)  
5. ELONGATION  
6. R.A.  
7. FATT (DEG.F)  
8. R.T. IMPACT (FT.LB.)  
9. U.S. IMPACT TEMP.  
(DEG.F)  
10. U.S. IMPACT ENG. [ 69.5 ]  
(FT.LB.)  
11. U.S. KIC [ 192.96 ]  
(KSI\*SQRT(IN.))

#### C. MATERIAL PROPERTIES (RIM)

1. Y.S. (KSI)  
2. U.T.S. (KSI)  
3. ELONGATION  
4. R.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 [ ] ST [ ] 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 RADIIUS (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) [ ]

#### 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 : 012281

ID # : 0280106204

### LP TURBINE DISC INFORMATION

#### A. UNIT IDENTIFICATION

1. BUILDING BLOCK 280  
2. UNIT WATERFORD #3  
3. CUSTOMER: LOUISIANA PWR. & LT.  
4. LPR 2  
5. LOCATION GEN  
6. DISC # 4  
7. TEST NO. IN6323  
8. ROTOR NO.  
9. S.O. NO.

#### B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. [ ] (KSI)) TC  
2. SUPPLIER: BETHLEHEM STEEL  
3. Y.S. (KSI)  
4. U.T.S. (KSI)  
5. ELONGATION  
6. R.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. R.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 [ ] MH [ ] SI [ ] P [ ] CR [ ] MO [ ] V [ ]  
NI [ ] AS [ ] SH [ ] SM [ ] AL [ ] CU [ ] S [ ]

#### E. BORE STRESS

SPEED (RPM) STRESS

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

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

A-CR-OP (1800 RPM) (IN.) [ ]  
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 = 012281

ID # : 0280106205

# LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION		B. MATERIAL PROPERTIES (HUB)		C. MATERIAL PROPERTIES (RIM)	
1. BUILDING BLOCK	280	1. TYPE (MIN. Y.S. [KSI])	IF SUPPLIER'S STEEL	1. V.S. (KSI)	
2. UNIT WATERFORD #1		2. Y.S. (KSI)		2. U.T.S. (KSI)	
3. CUSTOMER: LOUISIANA PUR. & LT.		3. U.T.S. (KSI)		3. ELONGATION	
4. LP#		4. U.T.S. (KSI)		4. R.A.	
5. LOCATION		5. ELONGATION		5. FAT (DEG.F)	
6. DISC		6. R.A.		6. R.I. IMPACT (FT.LB.)	
7. TEST NO.	TM6353	7. FAT (DEG.F)		7. U.S. IMPACT TEMP. (DEG.F)	
8. ROTOR NO.		8. R.I. IMPACT (FT.LB.)		8. U.S. IMPACT ENG. (FT.LB.)	
9. S.O. NO.		9. U.S. IMPACT TEMP. (DEG.F)		9. U.S. KIC (KSI*SQRT(IN.))	
		10. U.S. IMPACT ENG. (FT.LB.)			
		11. U.S. KIC (KSI*SQRT(IN.))			

D. CHEMISTRY

C	SI	P	CR	MO	V
[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
NI	AS	SR	AI	CU	S
[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

E. BORE STRESS

SPEED (RPM)	STRESS (KSI)	F. CRACK DATA (KEYWAY RADIUS (IN.))
1. 1800	[ ]	1. A-CR-OP (1800 RPM) (IN.)
2. 2160 (120X)	[ ]	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/MON)	[ ]

1. 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 : 012281

ID # : 0280106205

# LP TURBINE DISC INFORMATION

## A. UNIT IDENTIFICATION

1. BUILDING BLOCK 280  
2. UNIT WATERFORD #3  
3. CUSTOMER: LOUISIANA PWR. & LT.  
4. LPH 3  
5. LOCATION GOV  
6. DISC# 2  
7. TEST NO. TN6350  
8. ROTOR NO.  
9. S.O. NO.

## B. MATERIAL PROPERTIES (HUB)

1. TYPE T  
2. SUPPLIER: MIDVALE HEPPENSTALL  
3. Y.S. (KSI) [ ]  
4. U.T.S. (KSI) [ ]  
5. ELONGATION [ ]  
6. R.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. R.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 : 012281

ID # : 0280106205

### LP TURBINE DISC INFORMATION

#### A. UNIT IDENTIFICATION

#### B. MATERIAL PROPERTIES (HUB)

#### C. MATERIAL PROPERTIES (RIM)

1. BUILDING BLOCK 280  
2. UNIT WATERFORD #3  
3. CUSTOMER: LOUISIANA PUR. & LT.  
4. LP# 3  
5. LOCATION GOV  
6. DISC 3  
7. TEST NO. TN6349  
8. ROTOR NO.  
9. S.O. NO.

1. TYPE (MIN. Y.S. [ ] (KSI)) TO  
2. SUPPLIER: MIDVALE HEPENSTALL  
3. Y.S. (KSI) [ ]  
4. U.T.S. (KSI) [ ]  
5. ELONGATION [ ]  
6. R.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.)]

1. Y.S. (KSI) [ ]  
2. U.T.S. (KSI) [ ]  
3. ELONGATION [ ]  
4. R.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 [ ] SM [ ] 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) [ ]

#### 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 : 012281

ID # : D280106205

### LP TURBINE DISC INFORMATION

#### A. UNIT IDENTIFICATION

1. BUILDING BLOCK 280  
2. UNIT WATERFORD #3  
3. CUSTOMER: LOUISIANA PWR. & LT.  
4. LPH 3  
5. LOCATION GOV  
6. DISC #  
7. TEST NO. IN6325  
8. ROTOR NO.  
9. S.O. NO.

#### B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. [ ] (KSI)) TC  
2. SUPPLIER: BETHLEHEM STEEL  
3. Y.S. (KSI)  
4. U.T.S. (KSI)  
5. ELONGATION  
6. R.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. R.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      MH      SI      P      CR      MN      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 : 012281

ID # : 0280106205

### LP TURBINE DISC INFORMATION

#### A. UNIT IDENTIFICATION

1. BUILDING BLOCK 280  
2. UNIT WATERFORD #3  
3. CUSTOMER: LOUISIANA PWR. & LT.  
4. LP# 3  
5. LOCATION GOV  
6. DISC# 5  
7. TEST NO. TH6348  
8. ROTOR NO.  
9. S.O. NO.

#### B. MATERIAL PROPERTIES (HUB)

1. TYPE TC  
(MIN. Y.S. [ ] (KSI))  
2. SUPPLIER MIDVALE HERPENSTALL  
3. Y.S. (KSI)  
4. U.T.S. (KSI)  
5. ELONGATION  
6. R.A.  
7. FATT (DEG.F)  
8. H.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. FATT (DEG.F)  
6. H.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 : 012281

ID # : 0280106206

# LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION		B. MATERIAL PROPERTIES (HUB)		C. MATERIAL PROPERTIES (RIM)	
1. BUILDING BLOCK	280	1. TYPE (MIN. Y.S. (KSI))	2. SUPPLIER: UNITED STATES STEEL	1. Y.S. (KSI)	
2. UNIT WATERFORD #1		3. Y.S. (KSI)		2. U.T.S. (KSI)	
3. CUSTOMER: LOUISIANA PUR. & LT.		4. U.T.S. (KSI)		3. ELONGATION	
4. LPA# GEN		5. ELONGATION		4. R.A.	
5. LOCATION		6. R.A.		5. FATT (DEG.F)	
6. DISC#	YN6358	7. FATT (DEG.F)		6. R.T. IMPACT (FT.LB.)	
7. TEST NO.		8. R.T. IMPACT (FT.LB.)		7. U.S. IMPACT TEMP. (DEG.F)	
8. ROTOR NO.		9. U.S. IMPACT TEMP. (DEG.F)		8. U.S. IMPACT ENG. (FT.LB.)	
9. S.O. NO.		10. U.S. IMPACT ENG. (FT.LB.)		9. U.S. KIC (KSI*SQRT(IN.))	
		11. U.S. KIC (KSI*SQRT(IN.))			

D. CHEMISTRY		E. CRACK DATA (KEYWAY RADIUS (IN))	
1. MN	[ ]	1. A-CR-OP (1800 RPM) (IN.)	[ ]
2. AS	[ ]	2. A-CR-OS (OVERSPEED) (IN.)	[ ]
3. NI	[ ]		
4. CR	[ ]		
5. P	[ ]		
6. MO	[ ]		
7. V	[ ]		
8. CU	[ ]		
9. S	[ ]		

F. BORE STRESS	
1. 1800' (KSI)	[ ]
2. 2160 (120X) (KSI)	[ ]

G. SERVICE DATA	
1. OPER. TEMP. METAL TEMP. HUB (DEG.F)	[ ]
2. ESTIMATED MAX OA/DI (IN/MONTH)	[ ]
3. ESTIMATED MAX OA/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 : 012281

ID # : 0280106206

### LP TURBINE DISC INFORMATION

#### A. UNIT IDENTIFICATION

1. BUILDING BLOCK 280  
2. UNIT WATERFORD #3  
3. CUSTOMER: LOUISIANA PUR. & LT.  
4. LPM 3  
5. LOCATION GEN  
6. DISC 2  
7. TEST NO. TN6287  
8. ROTOR NO.  
9. S.O. NO.

#### B. MATERIAL PROPERTIES (HUB)

1. TYPE TF  
(MIN. Y.S. (KSI))  
2. SUPPLIER: MIDVALE HEPPENSTALL  
3. Y.S. (KSI)  
4. U.T.S. (KSI)  
5. ELONGATION  
6. R.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. R.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 [ ] SM [ ] AL [ ] CU [ ] S [ ]

#### E. BORE STRESS

SPEED (RPM) STRESS

1. 1800 (KSI) [ ]  
2. 2100 (420%) (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 { }



E ) INDICATES WESTINGHOUSE PROPRIETARY  
LEVELS B,C,E

DATE OF REPORT : 012281

ID # : 0280106206

### LP TURBINE DISC INFORMATION

#### A. UNIT IDENTIFICATION

1. BUILDING BLOCK 280  
2. UNIT WATERFORD #3  
3. CUSTOMER: LOUISIANA PWR. & LT.  
4. LP# 3  
5. LOCATION GEN  
6. DISC 3  
7. TEST NO. TN6347  
8. ROTOR NO.  
9. S.O. NO.

#### B. MATERIAL PROPERTIES (HUB)

1. TYPE TD  
(MIN. Y.S. (KSI))  
2. SUPPLIER: MIDVALE HEPPENSTALL  
3. Y.S. (KSI)  
4. U.T.S. (KSI)  
5. ELONGATION  
6. R.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. R.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) [ ]

#### 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 : 012281

10 # : D280106206

# LP TURBINE DISC INFORMATION

## A. UNIT IDENTIFICATION

1. BUILDING BLOCK 280  
2. UNIT WATERFORD #3  
3. CUSTOMER: LOUISIANA PWR. & LT.  
4. LP# 3  
5. LOCATION GEN  
6. DISC# 4  
7. TEST NO. TN6324  
8. ROTOR NO.  
9. S.O. NO.

## B. MATERIAL PROPERTIES (HUB)

1. TYPE TC  
(MIN. Y-S. [ ] (KSI))  
2. SUPPLIER: L. HELEMAN STEEL  
3. Y-S. (KSI) [ ]  
4. U.T.S. (KSI) [ ]  
5. ELONGATION [ ]  
6. R.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. R.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 [ ]

DATE OF REPORT : 012281

AP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION		B. MATERIAL PROPERTIES (HUB)		C. MATERIAL PROPERTIES (ARM)	
1. BUILDING BLOCK	280	1. TYPE	(MIN. Y-S- (KSI))	1. TYPE	(KSI)
2. UNIT	WATERFORD #3	2. SUPPLIER	(KSI)	2. SUPPLIER	(KSI)
3. CUSTOMER	LOUISIANA	3. Y-S- (KSI)	(KSI)	3. Y-S- (KSI)	(KSI)
4. LPA		4. U-T-S- (KSI)	(KSI)	4. U-T-S- (KSI)	(KSI)
5. LOCATION		5. ELONGATION	(%)	5. ELONGATION	(%)
6. DISC		6. R-A- (DEG)	(DEG)	6. R-A- (DEG)	(DEG)
7. TEST NO.	TM6351	7. FAT (DEG)	(DEG)	7. FAT (DEG)	(DEG)
8. ROTOM NO.		8. R-I- (DEG)	(DEG)	8. R-I- (DEG)	(DEG)
9. S.O. NO.		9. U-S- (DEG)	(DEG)	9. U-S- (DEG)	(DEG)
		10. U-S- IMPACT ENG. (FT. LB.)	(FT. LB.)	10. U-S- IMPACT ENG. (FT. LB.)	(FT. LB.)
		11. U-S- KIC (KSI) (IN.)	(KSI) (IN.)	11. U-S- KIC (KSI) (IN.)	(KSI) (IN.)

D. CHEMISTRY

1. BORE	STRESS SPEED (RPM)	STRESS (KSI)	2. BACK DATA (KEYWAY RADIUS (IN))
1- 1800	(KSI)	1- A-CG-OP (1800 RPM) (IN.)	
2- 2100	(KSI)	2- A-CG-OS (OVERSPEED) (IN.)	

5. SERVICE DATA

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

1. INSPECTION STATUS

2. FIRST INSPECTION DATE

3. OPERATING TIME AT INSPECTION (HR.)

4. KEYWAY CRACK DEPTH (MAX.)-(IN.)

5. BORE CRACK DEPTH (MAX.)-(IN.)

6. DISK STATUS