ATTACHMENT II

APPLICATION FOR WITHHOLDING

PROPRIETARY INFORMATION

FROM PUBLIC DISCLOSURE

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
DOCKET NO. 50-286
JANUARY 22, 1981

8101300596

AW-80-13

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: Indian Point #3 Docket #50-286
Information in Response to NRC Request for Information of February 25, 1980, Relative to Low Pressure Turbine Disc Integrity.

Reference: Appendix A letter from P. J. Early to Eisenhut, dated 3/19/80

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,

Robert Williamson

R. Williamson, Manager
Customer Order Engineering
Westinghouse Electric Corporation

Ref: AW-80-13

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 Williamson

Robert Williamson, Manager
Customer Order Engineering

Sworn to and subscribed before me
this 15 day of May 80

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 P. J. Early to Eisenhut, dated March 19, 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.

ATTACHMENT III

UPDATE TO APPENDIX A OF

AUTHORITY MARCH 19, 1980 LETTER

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT 3 NUCLEAR POWER PLANT
DOCKET NO. 50-286
JANUARY 22, 1981

THIS IS A NON-PROPRIETARY COPY OF ATTACHMENT I.
ALL PROPRIETARY INFORMATION HAS BEEN OMITTED.

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102101

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 1
5. LOCATION GOV
6. DISC# 5
7. TEST NO. TD44485

B. MATERIAL PROPERTIES (HUB)

1. TYPE (MIN. Y.S. [ ] TO (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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102101

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 1
5. LOCATION GOV
6. DISC# 3
7. TEST NO. TD44550

B. MATERIAL PROPERTIES (HUB)

1. TYPE VP
(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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102101

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 1
5. LOCATION GOV
6. DISC# 4
7. TEST NO. TD44517

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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102101

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 1
5. LOCATION GOV
6. DISC# 2
7. TEST NO. TD44507

B. MATERIAL PROPERTIES (HUB)

1. TYPE TE
   (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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102101

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 1
5. LOCATION GOV
6. DISC# 1
7. TEST NO. TD44509

B. MATERIAL PROPERTIES (HUB)

1. TYPE TE
   (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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102101

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 1
5. LOCATION GOV
6. DISC# 6
7. TEST NO. TD44493

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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102102

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 1
5. LOCATION GEN
6. DISC# 1
7. TEST NO. TD44511

B. MATERIAL PROPERTIES (HUB)

1. TYPE TE
(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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102102

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 1
5. LOCATION GEN
6. DISC# 2
7. TEST NO. TD44506

B. MATERIAL PROPERTIES (HUB)

1. TYPE TE
   (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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102102

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 1
5. LOCATION GEN
6. DISC# 3
7. TEST NO. TD44548

B. MATERIAL PROPERTIES (HUB)

1. TYPE VP
   (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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102102

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 1
5. LOCATION GEN
6. DISC# 4
7. TEST NO. TD44531

B. MATERIAL PROPERTIES (HUB)

1. TYPE TE
(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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102102

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 1
5. LOCATION GEN
6. DISC# 5
7. TEST NO. TD44486

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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102102

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 1
5. LOCATION GEN
6. DISC# 6
7. TEST NO. TD44499

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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102103

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 2
5. LOCATION GOV
6. DISC# 1
7. TEST NO. TD44512

B. MATERIAL PROPERTIES (HUB)

1. TYPE TE
(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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102103

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 2
5. LOCATION GOV
6. DISC# 2
7. TEST NO. TD44503

B. MATERIAL PROPERTIES (HUB)

1. TYPE TE
(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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102103

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 2
5. LOCATION GOV
6. DISC# 3
7. TEST NO. TD44547

B. MATERIAL PROPERTIES (HUB)

1. TYPE VP
   (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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102103

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 2
5. LOCATION GOV
6. DISC# 4
7. TEST NO. TD44530

B. MATERIAL PROPERTIES (HUB)

1. TYPE TE
(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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102103

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 2
5. LOCATION GOV
6. DISC# 5
7. TEST NO. TD44553

B. MATERIAL PROPERTIES (HUB)

1. TYPE TE
(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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102103

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 2
5. LOCATION GOV
6. DISC# 6
7. TEST NO. TD39621

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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102104

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 2
5. LOCATION GEN
6. DISC# 1
7. TEST NO. TD44510

B. MATERIAL PROPERTIES (HUB)

1. TYPE TE
(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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102104

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 2
5. LOCATION GEN
6. DISC# 2
7. TEST NO. TD44504

B. MATERIAL PROPERTIES (HUB)

1. TYPE TE
(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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102104

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 2
5. LOCATION GEN
6. DISC# 3
7. TEST NO. TD44545

B. MATERIAL PROPERTIES (HUB)

1. TYPE VP
(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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102104

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 2
5. LOCATION GEN
6. DISC# 4
7. TEST NO. TD44529

B. MATERIAL PROPERTIES (HUB)

1. TYPE TE
   (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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102104

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 2
5. LOCATION GEN
6. DISC# 5
7. TEST NO. TD60930

B. MATERIAL PROPERTIES (HUB)

1. TYPE TE
(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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102104

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 2
5. LOCATION GEN
6. DISC# 6
7. TEST NO. TD39616

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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102105

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 3
5. LOCATION GOV
6. DISC# 1
7. TEST NO. TD55615

B. MATERIAL PROPERTIES (HUB)

1. TYPE TE
   (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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102105

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 3
5. LOCATION GOV
6. DISC# 2
7. TEST NO. 44508

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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102105

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 3
5. LOCATION GOV
6. DISC# 3
7. TEST NO. TD44549

B. MATERIAL PROPERTIES (HUB)

1. TYPE VP
(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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102105

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 3
5. LOCATION GOV
6. DISC# 4
7. TEST NO. T055408

B. MATERIAL PROPERTIES (HUB)

1. TYPE TE
   (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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102105

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 3
5. LOCATION GOV
6. DISC# 5
7. TEST NO. TD44557

B. MATERIAL PROPERTIES (HUB)

1. TYPE TB
   (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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102105

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 3
5. LOCATION GOV
6. DISC# 6
7. TEST NO. TD39625

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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102106

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 3
5. LOCATION GEN
6. DISC# 1
7. TEST NO. TD55614

B. MATERIAL PROPERTIES (HUB)

1. TYPE TE
   (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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102106

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 3
5. LOCATION GEN
6. DISC# 2
7. TEST NO. TD55407

B. MATERIAL PROPERTIES (HUB)

1. TYPE TE
   (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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102106

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 3
5. LOCATION GEN
6. DISC# 3
7. TEST NO. TD44546

B. MATERIAL PROPERTIES (HUB)

1. TYPE VP
(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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102106

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 3
5. LOCATION GEN
6. DISC# 4
7. TEST NO. TD44533

B. MATERIAL PROPERTIES (HUB)

1. TYPE TE
   (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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102106

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 3
5. LOCATION GEN
6. DISC# 5
7. TEST NO. TD44552

B. MATERIAL PROPERTIES (HUB)

1. TYPE TE
(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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

[ ] INDICATES WESTINGHOUSE PROPRIETARY
LEVELS B,C,E

DATE OF REPORT : 092280

ID # : D081102106

LP TURBINE DISC INFORMATION

A. UNIT IDENTIFICATION

1. BUILDING BLOCK 81
2. UNIT INDIAN PT. #3
3. CUSTOMER: PASNY
4. LP# 3
5. LOCATION GEN
6. DISC# 6
7. TEST NO. TD44502

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. 2376 (132%)	(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. OPERATING TIME AT INSPECTION (HR.) [ ]
2. KEYWAY CRACK DEPTH (MAX.)-(IN.) [ ]
3. BORE CRACK DEPTH (MAX.)-(IN.) [ ]
4. DISK STATUS [ ]

DOCKET NO. 50-286

DATE: 2-2-81

NOTE TO NRC AND/OR LOCAL PUBLIC DOCUMENT ROOMS

The following item submitted with letter dated 1-22-81

from PASNY is being withheld from public disclosure

in accordance with Section 2.790.

PROPRIETARY INFORMATION

Update to App. A Ref. Turbine Disc. Properties

Don Lanham

016

Distribution Services Branch

PROP

NOTICE

THE ATTACHED DOCUMENT MAY CONTAIN "PROPRIETARY INFORMATION" OR MATERIAL OF A PRIVACY NATURE, AND SHOULD BE HANDLED AS NRC "OFFICIAL USE ONLY" INFORMATION. IT SHOULD NOT BE DISCUSSED OR MADE AVAILABLE TO ANY PERSON NOT REQUIRING SUCH INFORMATION IN THE CONDUCT OF OFFICAL BUSINESS AND SHOULD BE STORED IN A MANNER WHICH WILL ASSURE THAT ITS CONTENTS ARE NOT MADE AVAILABLE TO UNAUTHORIZED PERSONS.