



LUDECA

Timbuktwo Generating Conglomerate

4141 Parkway Dr.

Panhandle, Tx. 21212

**Vibration Acceptance Report for
Unit 2 Boiler Feed Pump & Motor**

Submitted to

*Mr. John Goodman
Maintenance Manager
Top Corporation
jgman@tgk.com*

Timbuktwo Generating Conglomerate
Panhandle, TX
Managed by Top Corporation

*Submitted on
January 19th 2015*

By:

JETTECH MECHANICAL LLC

*14475 W Roanoke Ave
Goodyear, AZ 85395
Phone: 623-536-8374
Fax: 623-536-8369
www.JetTechMechanical.com*

Ludeca, Inc.

*1425 N.W. 88th Avenue
Doral, FL 33172
Phone: 305-591-8935
Fax: 305-591-1537
www.ludeca.com*

*Brian Franks
BFranks@JetTechMechanical.com*

*Mike Fitch
Certified by the Vibration Institute
Category III Vibration Analyst
mike.fitch@ludeca.com*



Mr. Goodman,

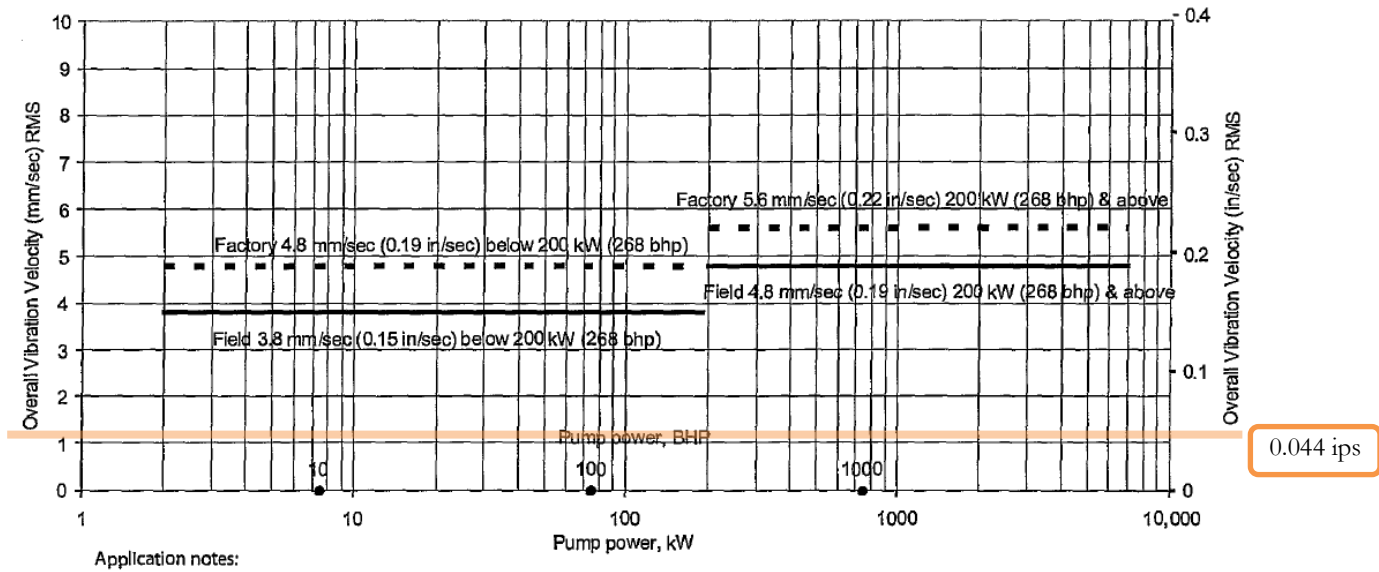
We have analyzed the data collected by JetTech Mechanical on Unit 2 Boiler Feed Pump and Motor and found the vibration to be low in amplitude. The overall levels are well within acceptable levels as per the 2009 ANSI Standard (see pg 3).

Along with the overalls, the discreet frequencies were analyzed and also found to be acceptable. We recommend monitoring this critical machine on a monthly basis so that any defect that may develop can be identified in its earliest detectable stages. Many defect frequencies can be harmless if they don't reach an amplitude that damages the machine in some way.

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The highest overall level recorded was at the drive end vertical of the pump. It was 0.0437 ips which is less than half of the acceptable overall level specified in the ANSI 2009 standard.

HI Rotodynamic Pumps for Vibration Measurements and Allowable Values — 2009



Application notes:

- 1) New pumps, operation in the preferred operating region (POR), tested with clear liquids. (Maximum, any plane. For measurement locations indicated in Figure 9.6.4.2.3.1.)
- 2) For operation outside the POR but within the allowable operating region (AOR), increase the values shown by 30%.
- 3) Pump types refer to Figure 9.6.4.2.3.1.

Figure 9.6.4.2.5.1a — Allowable pump vibration, pump types BB1, BB2, BB3, BB4, BB5, OH1, OH2, OH3, OH4, OH5, and OH7 (For a more complete description of pump types, refer to ANSI/HI 1.1-1.2 *Rotodynamic (Centrifugal) Pumps for Nomenclature and Definitions* and ANSI/HI 2.1-2.2 *Rotodynamic (Vertical) Pumps for Nomenclature and Definitions*.)

Motor Point	Level in ips rms
MOH	0.007
MOV	0.01
MOA	0.011
MIH	0.011
MIV	0.012
MIA	0.007

Pump Point	Level in ips rms
PIH	0.038
PIV	0.044
POH	0.027
POV	0.025
PIA	0.012

Finding Detail Report

Reporter: Mike Fitch

Creation Date: 1/22/2015 1:23:02 PM

Workspace: c:\users\mike.fitch\documents\my databases\..._2015_1st collection

Unit #2 BFP Motor

Date: 1/22/2015

Time: 12:29:24 PM

Asset: 291 database\... Unit 2 Boiler Feed Pump \Hyundai BFP Motor

Author: Mike Fitch

Status: **Closed**

Severity: Normal

Diagnosis		
Code	Brief Description	Status
NAN	Normal levels Monitor for developing defects	Closed

Correction Recommendation		
Code	Brief Description	Status

Description
The vibration amplitude is normal on this motor. Condition should be monitored to identify defects in their earliest stages so they can be corrected before costly failure.



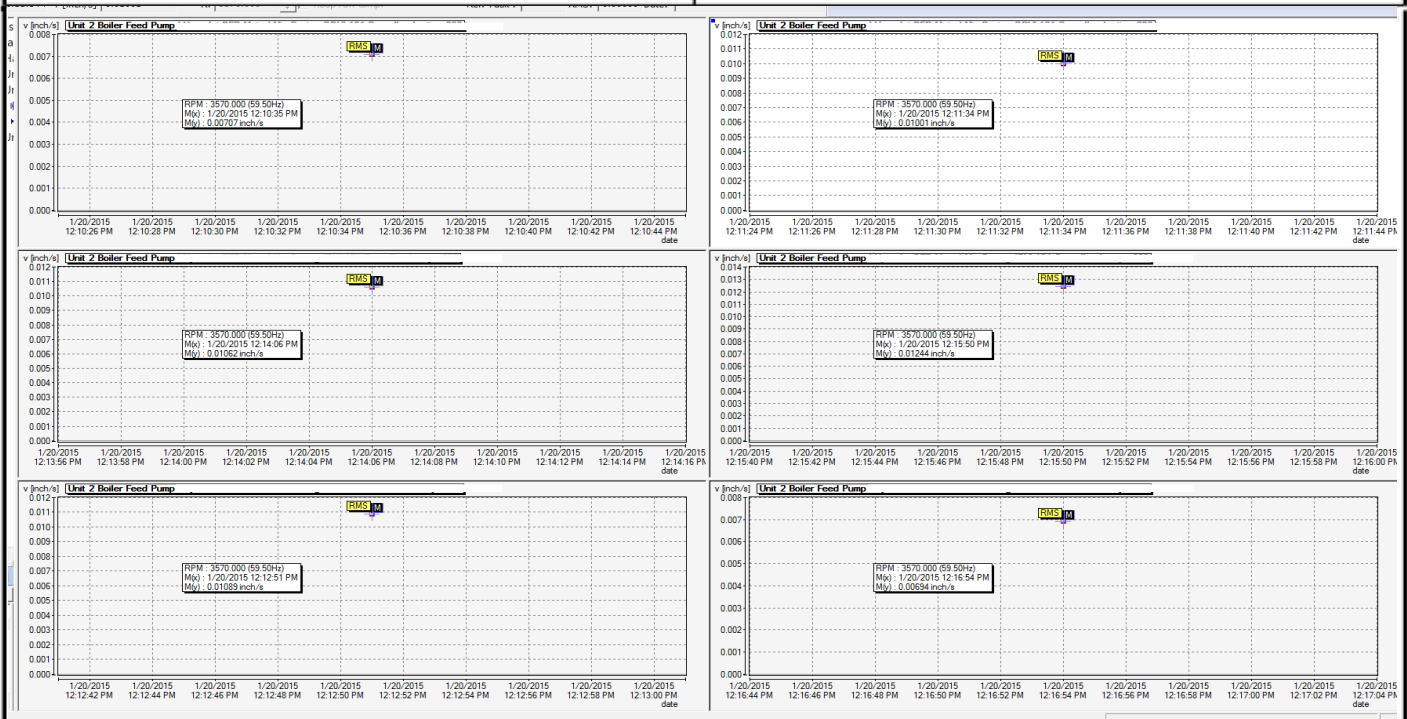
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Symptoms

Name	Description
1/2015 Mtr Radial	All amplitudes are acceptable. Trend RBP (rotor bar pass) to monitor health



Name	Description
1/2015 Mtr RMS OAs	Motor RMS Overall



Keep it running.

1425 NW 88th Avenue, Doral, FL 33172

T: 305.591.8935 F: 305.591.1537 info@ludeca.com www.ludeca.com

Ludeca, Inc.
Alignment-Vibration-Balancing



Finding Detail Report

Reporter: Mike Fitch
 Creation Date: 1/22/2015 12:45:29 PM
 Workspace: c:\users\mike.fitch\documents\my databases\omt 291\new harquahala_2015_1st collection

Unit #2 BFP Pump

Date: 1/22/2015
 Time: 12:42:40 PM

Asset: 291 database\New Harquahala\Unit 2 Boiler Feed Pump \Ingersoll-Dresser BFP
 Author: Mike Fitch
 Status: Closed
 Severity: Normal

Diagnosis		
Code	Brief Description	Status
NAN	Pump vibration levels normal Monitor for developing defects	Closed

Correction Recommendation		
Code	Brief Description	Status

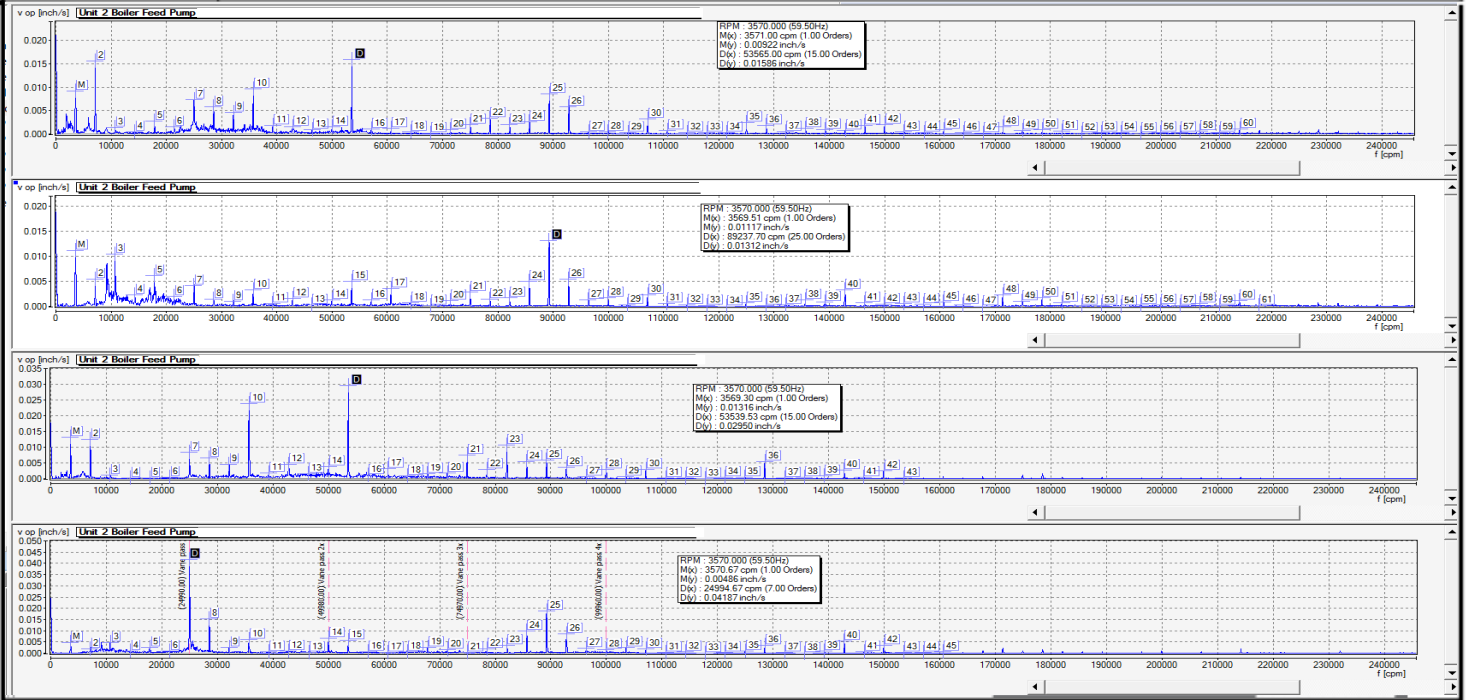
Description
Pump vibration levels are normal. Monitor for developing defects.



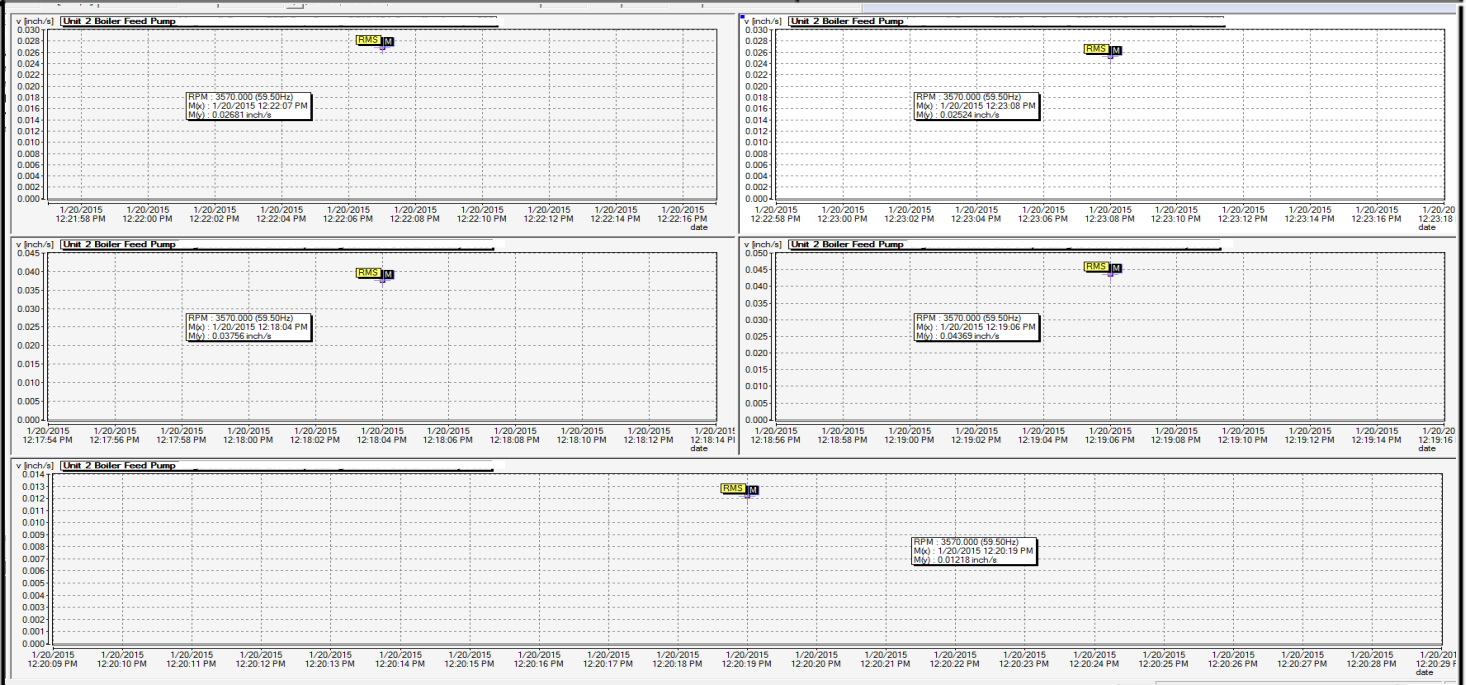
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Symptoms

Name	Description
1/2015 Pump Radials	Amplitudes acceptable. All peaks appear run speed harmonics. Pump stages 5 and 7 vane. There are 2x harmonics that need to be watched.



Name	Description
1/2015 Pmp RMS OAs	Pump RMS OAs



Keep it running.

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