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8 May, 2007

Larry,

Vibration data was collected at your facility 30 April – 3 May 2007. Analysis was performed on that data 7 – 8 May 2007. The attached report is intended to inform you of any significant machinery problems identified during this analysis.

CSI is committed to providing World Class Predictive Maintenance technologies and ensuring customer satisfaction. If you have any questions concerning any of the information contained in this report please feel free to contact me. I would like to thank you for allowing CSI Services to assist you in your Reliability Based Maintenance efforts.

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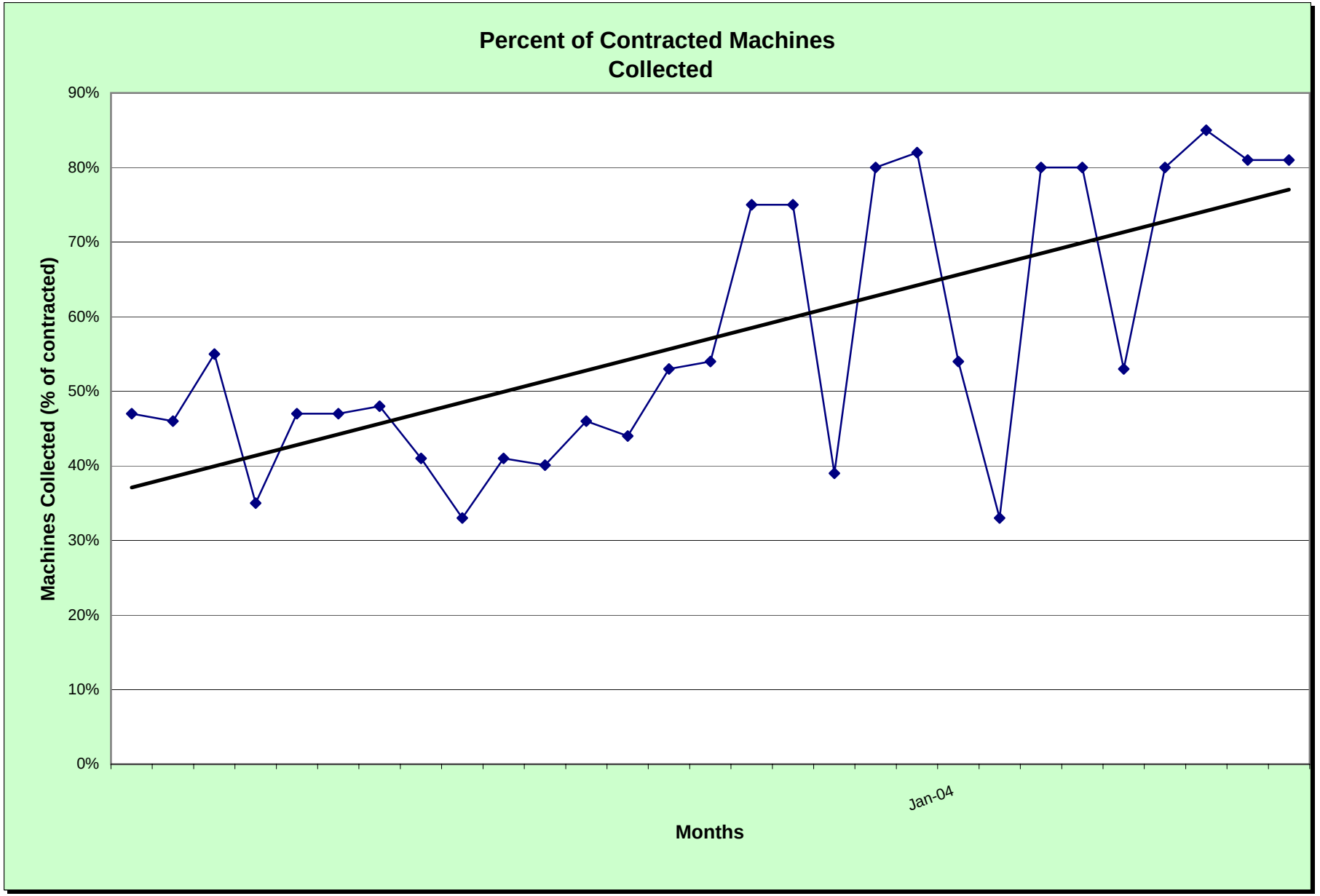
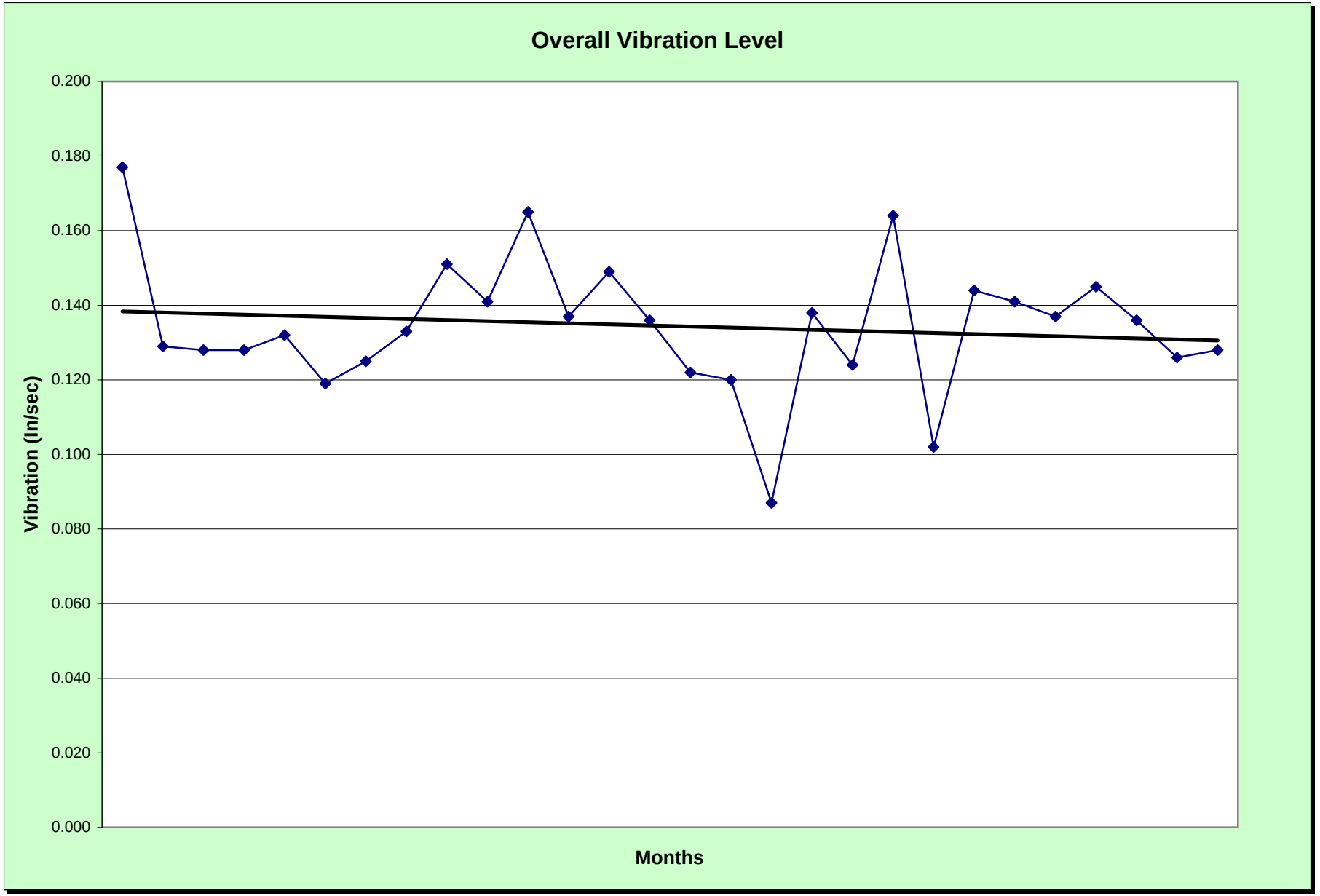

Percent of Contracted Machines Collected
Machines Collected (% of contracted)
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Jan-04
Months


Overall Vibration Level
0.200
0.180
0.160
0.140
0.120
0.100
0.080
0.060
0.040
0.020
0.000
Vibration (In/sec)
Months

Equipment ID	Equipment Description	March-06	April-06	May-06	June-06	July-06	August-06	##########	October-06	##########	December-06	January-07	February-07	March-07	April-07	May-07	Comments
Oven 31 & Mill 6																	
O31 CF1	Oven 31 Circ Fan 1	OK	OK	OK	OK	OK	OK	2	OK	3	3	3	3	OK	NT	OK	
O31 CF2	Oven 31 Circ Fan 2	OK	OK	2	2	OK	OK	4	OK	OK	OK	OK	OK	OK	NT	3	Imbalance in Fan
O31 CF3	Oven 31 Circ Fan 3	OK	OK	OK	OK	OK	OK	OK	OK	OK	4	3	3	2	NT	2	**Imbalance**
O31 CF4	Oven 31 Circ Fan 4	4	OK	OK	OK	OK	OK	OK	OK	OK	4	OK	3	3	NT	3	**Misalignment**
O31 CFE	Oven 31 Cool Fan East	OK	OK	OK	OK	OK	OK	OK	OK	3	NT	4	3	NT	OK	OK	
O31 CFW	Oven 31 Cool Fan West	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	OK	OK	NT	OK	OK	
Mill 6 Un	Mill 6 Unwind	OK	OK	OK	OK	OK	OK	OK	OK	OK	5	OK	OK	NT	OK	OK	
Mill6UnBrl	Mill 6 Unwind Barrel	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Mill 6 MnD	Mill 6 Main Drive	OK	4	OK	OK	OK	OK	2	OK	2	OK	OK	OK	NT	OK	OK	
Mill 6 Re	Mill 6 Rewind	OK	4	OK	OK	OK	OK	3	OK	3	2	OK	OK	NT	OK	OK	
Mill6ReBrl	Mill 6 Rewind Barrel	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
ExF Mill 6	Exhaust Fan Mill 6	OK	OK	OK	OK	OK	OK	4	OK	OK	OK	OK	OK	NT	OK	OK	
Mills 1, 2, 3, 4 & 5																	
Mill 1 Un	Mill 1 Unwind	OK	4	OK	OK	4	OK	OK	OK	4	4	3	4	NT	OK	OK	
Mill1UnBrl	Mill 1 Unwind Barrel	OK	OK	5	3	OK	OK	4	OK	OK	OK	3	3	NT	3	3	**High Impacting**
Mill 1 MnD	Mill 1 Main Drive	OK	OK	OK	5	OK	OK	OK	OK	3	4	3	3	NT	OK	OK	
Mill 1 Re	Mill 1 Rewind	OK	OK	OK	2	OK	2	4	OK	OK	OK	3	OK	NT	OK	OK	
Mill1ReBrl	Mill 1 Rewind Barrel	OK	OK	OK	OK	OK	OK	OK	OK	OK	4	3	OK	NT	3	OK	
Mill 2 Un	Mill 2 Unwind	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	OK	OK	
Mill2UnBrl	Mill 2 Unwind Barrel	OK	OK	OK	OK	3	OK	OK	OK	OK	4	4	OK	NT	OK	OK	
Mill 2 MnD	Mill 2 Main Drive	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	3	4	**Gear Defect - Input Shaft**
Mill 2 Re	Mill 2 Rewind	3	5	5	3	OK	OK	OK	OK	3	4	4	OK	NT	4	3	**Bearing Defect in Gearbox**
Mill2ReBrl	Mill 2 Rewind Barrel	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	3	3	**Antifriction Bearing Defect**
Mill 3 Un	Mill 3 Unwind	OK	4	OK	OK	OK	OK	OK	OK	OK	OK	4	OK	NT	OK	OK	
Mill3UnBrl	Mill 3 Unwind Barrel	OK	3	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	4	OK	
Mill 3 MnD	Mill 3 Main Drive	4	3	3	OK	OK	OK	OK	OK	3	4	4	4	NT	OK	OK	
Mill 3 Re	Mill 3 Rewind	OK	OK	OK	OK	OK	OK	OK	OK	2	2	2	3	NT	3	OK	
Mill3ReBrl	Mill 3 Rewind Barrel	OK	2	OK	OK	OK	OK	OK	OK	OK	OK	OK	3	NT	OK	OK	
M3 MotGen	Mill 3 Motor Generator	OK	4	OK	OK	OK	OK	3	3	3	3	4	OK	NT	4	OK	
M3 MnDrGen	Mill 3 Main Drive Generator	OK	4	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	OK	OK	
Mill4 Un#1	Mill 4 Unwind #1	OK	OK	OK	3	OK	OK	OK	OK	OK	OK	OK	OK	NT	OK	4	Possible Gear Defect on Gearbox
Mill4UnBr1	Mill 4 Unwind Barrel 1	OK	OK	OK	OK	OK	OK	4	OK	OK	OK	OK	OK	NT	OK	2	Additional Data Requested
Mill4 Un#2	Mill 4 Unwind #2	OK	OK	OK	OK	OK	OK	OK	OK	4	3	OK	OK	NT	3	OK	
Mill4UnBr2	Mill 4 Unwind Barrel 2	OK	OK	OK	OK	OK	OK	4	OK	4	OK	OK	3	NT	3	OK	
Mill 4 MnD	Mill 4 Main Drive	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	OK	OK	
Mill 4 Re	Mill 4 Rewind	OK	OK	OK	4	OK	OK	3	OK	OK	4	OK	OK	NT	4	3	**Possible Gear Defect on Gearbox**
Mill4ReBrl	Mill 4 Rewind Barrel	OK	OK	OK	OK	OK	OK	OK	OK	OK	4	OK	OK	NT	OK	OK	
Mill5 Un#1	Mill 5 Unwind #1	OK	4	OK	OK	4	3	OK	OK	2	OK	OK	OK	NT	4	OK	
Mill5UnBr1	Mill 5 Unwind Barrel 1	OK	4	OK	OK	OK	OK	4	OK	4	OK	OK	OK	NT	OK	OK	
Mill5 Un#2	Mill 5 Unwind #2	OK	OK	4	OK	OK	OK	OK	OK	4	4	OK	OK	NT	OK	OK	
Mill5UnBr2	Mill 5 Unwind Barrel 2	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	4	NT	OK	OK	
Mill 5 MnD	Mill 5 Main Drive	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	4	OK	
Mill 5 Re	Mill 5 Rewind	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	OK	4	Possible Gear Defect on Gearbox
Mill5ReBrl	Mill 5 Rewind Barrel	2	5	OK	OK	OK	OK	4	OK	OK	3	OK	OK	NT	3	OK	
MCB Mill45	Motor Cooling Blwr Mill 4-5	OK	OK	OK	4	OK	OK	OK	OK	OK	OK	OK	OK	NT	OK	OK	
NCB Mill35	North Cooling Blwr Mill 3-5	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	OK	4	Imbalance in Fan
SCB Mill35	South Cooling Blwr Mill 3-5	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	OK	OK	
#1 Sep Top	#1 Separator Rewind Mot Top	OK	OK	OK	4	OK	OK	4	OK	OK	4	OK	OK	NT	OK	OK	
#1 Sep Bot	#1 Separator Rewind Mot Bott	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	OK	OK	
#1 Sep Unw	#1 Separator Unwind Mot	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	OK	OK	
#2 Sep Top	#2 Separator Rewind Mot Top	OK	OK	4	OK	OK	OK	OK	OK	OK	OK	4	OK	NT	OK	OK	
#2 Sep Bot	#2 Separator Rewind Mot Bott	OK	OK	2	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	OK	OK	
#2 Sep Unw	#2 Separator Unwind Mot	OK	OK	OK	3	OK	OK	OK	OK	OK	4	OK	OK	NT	OK	OK	

Ovens 2, 3, 4 & 15																	
O2 CF1A	Oven 2 Circ Fan 1A	OK	OK	OK	OK	OK	OK	OK	OK	2	OK	OK	OK	NT	OK	NT	
O2 CF1B	Oven 2 Circ Fan 1B	2	2	2	2	2	2	2	2	2	2	2	2	NT	2	NT	**Imbalance**
O2 CF2A	Oven 2 Circ Fan 2A	2	2	2	2	2	2	2	2	2	2	2	2	NT	2	NT	**Pulley/Sheave Misalignment**
O2 CF2B	Oven 2 Circ Fan 2B	2	2	2	2	2	2	2	2	2	2	2	2	NT	2	NT	**Pulley/Sheave Misalignment**
O2 CF3A	Oven 2 Circ Fan 3A	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	OK	NT	
O2 CF3B	Oven 2 Circ Fan 3B	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	3	NT	3	NT	**Pulley/Sheave Misalignment**
O2 CF	Oven 2 Cool Fan	3	3	2	2	2	NT	2	2	2	2	OK	OK	NT	NT	NT	
O3 CF1A	Oven 3 Circ Fan 1A	OK	OK	OK	OK	OK	OK	OK	OK	NT	NT	OK	OK	NT	OK	OK	
O3 CF1B	Oven 3 Circ Fan 1B	OK	OK	OK	OK	OK	OK	OK	OK	NT	NT	3	OK	NT	4	OK	
O3 CF2A	Oven 3 Circ Fan 2A	4	3	OK	OK	OK	OK	OK	OK	NT	NT	OK	3	NT	3	OK	
O3 CF2B	Oven 3 Circ Fan 2B	OK	OK	OK	OK	OK	OK	OK	OK	NT	NT	OK	OK	NT	OK	3	Imbalance in Motor
O3 CF3A	Oven 3 Circ Fan 3A	OK	OK	OK	OK	OK	OK	OK	OK	NT	NT	OK	OK	NT	OK	OK	
O3 CF3B	Oven 3 Circ Fan 3B	OK	OK	OK	OK	OK	OK	OK	OK	NT	NT	OK	OK	NT	OK	OK	
O3 CF	Oven 3 Cool Fan	3	OK	2	2	2	2	2	2	NT	NT	3	3	NT	3	OK	
O4 CF1A	Oven 4 Circ Fan 1A	OK	OK	OK	OK	OK	OK	OK	OK	OK	3	OK	NT	NT	NT	NT	
O4 CF1B	Oven 4 Circ Fan 1B	OK	2	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	NT	NT	NT	
O4 CF2A	Oven 4 Circ Fan 2A	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	NT	NT	NT	
O4 CF2B	Oven 4 Circ Fan 2B	OK	OK	OK	OK	OK	OK	OK	OK	3	3	3	NT	NT	NT	NT	
O4 CF3A	Oven 4 Circ Fan 3A	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	NT	NT	NT	
O4 CF3B	Oven 4 Circ Fan 3B	3	3	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	NT	NT	NT	
O4 CF	Oven 4 Cool Fan	3	OK	OK	NT	OK	OK	OK	OK	OK	NT	OK	NT	NT	NT	NT	
O15 CF1	Oven 15 Circ Fan 1	OK	NT	OK	OK	OK	NT	OK	OK	OK	4	OK	OK	OK	NT	OK	
O15 CF2	Oven 15 Circ Fan 2	OK	NT	OK	OK	OK	NT	OK	OK	OK	OK	OK	OK	OK	NT	4	Imbalance in Motor
O15 CF3	Oven 15 Circ Fan 3	OK	NT	OK	3	OK	NT	OK	OK	OK	OK	OK	OK	OK	NT	4	Imbalance in Motor
O15 CF	Oven 15 Cool Fan	OK	OK	NT	OK	OK	NT	OK	OK	OK	OK	NT	NT	OK	NT	OK	
Oven 1, 22, 24 & 25																	
O1 CF1A	Oven 1 Circ Fan 1A	3	2	2	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	OK	OK	
O1 CF1B	Oven 1 Circ Fan 1B	OK	OK	OK	OK	OK	OK	OK	OK	3	3	3	2	NT	3	OK	
O1 CF2A	Oven 1 Circ Fan 2A	2	OK	OK	OK	OK	OK	OK	OK	OK	OK	4	3	NT	3	3	**Imbalance in Motor**
O1 CF2B	Oven 1 Circ Fan 2B	3	3	3	3	3	3	4	OK	OK	4	4	3	NT	3	3	**Imbalance in Motor**
O1 CF3A	Oven 1 Circ Fan 3A	3	OK	OK	OK	OK	OK	OK	OK	OK	4	OK	OK	NT	OK	OK	
O1 CF3B	Oven 1 Circ Fan 3B	3	OK	OK	OK	OK	OK	OK	OK	4	4	4	4	NT	4	3	**Possible Bearing Defect on Fan**
O1 CF	Oven 1 Cool Fan	OK	OK	NT	OK	OK	OK	OK	OK	OK	NT	OK	OK	NT	OK	NT	
O22 CF	Oven 22 Circ Fan	OK	OK	OK	OK	OK	OK	NT	OK	OK	OK	OK	OK	NT	NT	NT	
O24 CF	Oven 24 Circ Fan	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	OK	
O25 CF	Oven 25 Circ Fan	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	NT	4	OK	
Rollgrinders																	
NG Spindle	NaxosGrinder - Spindle Motor	OK	OK	OK	OK	OK	NT	4	OK	OK	NT	OK	NT	NT	OK	NT	
NG-Work	NaxosGrinder - Work Motor	OK	OK	OK	OK	4	NT	5	OK	OK	NT	OK	NT	NT	OK	NT	
NG Travers	Naxos Grinde - Traverse Motor	OK	OK	OK	OK	OK	NT	OK	OK	OK	NT	OK	NT	NT	OK	NT	
LL Spindle	LittleLandis - Spindle Motor	OK	OK	OK	OK	OK	NT	OK	OK	OK	NT	OK	NT	NT	OK	NT	
LL-Work	LittleLandis - Work Motor	OK	OK	5	3	OK	NT	OK	OK	OK	NT	OK	NT	NT	4	NT	**Possible Bearing Defect on Motor**
LL Travers	LittleLandis-Trav Mtr/Pump	4	OK	OK	3	OK	NT	3	3	3	NT	3	NT	NT	4	NT	**Looseness in Pump**
Bl Spindle	Big Landis - Spindle Motor	OK	OK	OK	OK	OK	NT	OK	OK	OK	NT	OK	NT	NT	OK	NT	
BL-Work	Big Landis - Work Motor	OK	OK	OK	OK	OK	NT	OK	OK	OK	NT	OK	NT	NT	OK	NT	
BL Travers	Big Landis - Traverse Motor	OK	OK	OK	OK	OK	NT	OK	OK	3	NT	OK	NT	NT	OK	NT	

Condition Legend:	
Priority 1	**Emergency Situation**
Priority 2	**High Alarm**
Priority 3	**Alarm**
Priority 4	**Watch**
Priority 5	**Discussion Needed**
NT	**Not Tested this survey**
OK	**Condition is acceptable for operation**

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Predictive Maintenance Summary Report

05/08/07
DAGOLI/1

Area 31-6 Oven 31 & Mill 6

Urgency	Equipment	Problem	Extended Description
High Alarm	O31 CF3 Oven 31 Circ Fan 3	01-May-07 - Imbalance - Air Handler (Fan)	Continued Call: The 1x turn speed vibration on the fan inboard horizontal point has increased since last data. The imbalance in the fan is getting worse. That is the reason for the increased severity. The fan vibration is also increasing on the motor points indicating the imbalance is being coupled to the motor. Recommend inspecting the fan for buildup on blades and balancing the fan if removing buildup does not resolve the problem.
Alarm	O31 CF2 Oven 31 Circ Fan 2	01-May-07 - Imbalance - Air Handler (Fan)	The fan inboard horizontal point has an increasing 1x fan speed vibration indicating imbalance in the fan. This is also seen on the motor axial point. Recommend inspecting the fan blades for buildup and fan for imbalance.
Alarm	O31 CF4 Oven 31 Circ Fan 4	01-May-07 - Misalignment - Air Handler (Fan)	Continued Call: The motor points have 1x fan speed vibration indicating a misalignment of the pulley/sheaves. The fan 1x vibration is also increasing indicating some imbalance in the fan. Recommend inspecting the pulley/sheaves for proper alignment and belt tension. Also check the fan blades for buildup.

Area M1-5 Mills 1, 2, 3, 4 & 5

Urgency	Equipment	Problem	Extended Description
High Alarm	Mill4UnBr1 Mill 4 Unwind Barrel 1	03-May-07 - Additional Data Requested - Miscellaneous, Barrel Assembly	The barrel drive inboard PeakVue point has a significant increase in impacting and 1x turn speed harmonics. No other points have high vibration. Suspect bad data on this point. Recommend retaking data on this point for analysis.
Alarm	Mill 2 Re Mill 2 Rewind	01-May-07 - Antifriction bearing defect - Gear	Continued Call with increased severity. The gearbox has vibration peaks with sidebands at 1x turn speed. This indicates a bearing defect if speeds are correct. If speeds are incorrect it could be a gear defect. Recommend taking an oil sample on the gearbox to help determine the source and severity of the defect.
Alarm	Mill 4 Re Mill 4 Rewind	02-May-07 - Possible gear problem - Gear	Continued Call with increased amplitude. Most gearbox points have 280- Hz vibration with sidebanding. Amplitudes are higher than last month. No fault frequencies match. Suspect this is a gear defect. Recommend taking an oil sample on the gearbox.
Alarm	Mill1UnBrl Mill 1 Unwind Barrel	03-May-07 - High Impacting - Miscellaneous, Barrel Assembly	Continued Call: The unwind drive inboard and outboard PeakVue points have increasing impacting. The waveform is periodic and repeating. Recommend inspecting the bearings for proper lubrication and defects.

Alarm	Mill2ReBrl Mill 2 Rewind Barrel	03-May-07 - Antifriction bearing defect - Miscellaneous, Barrel Assembly	Continued Call: The rewind drive inboard point has harmonics of inner race defect with sidebands. This indicates an inner race bearing defect. Recommend inspecting the rewind drive inboard bearing for defects.
Watch	MCB Mill45 Motor Cooling Blwr Mill 4-5	01-May-07 - Imbalance - Air Handler (Fan)	The fan points have increasing 1x fan speed vibration and the motor points have increasing 1x fan and 1x motor speed vibration. There is little impacting in the waveform. No maintenance is recommended at this time. Continue to monitor next month.
Watch	Mill 2 MnD Mill 2 Main Drive	01-May-07 - Gear defects - Gear	The gear defect seen on the G1H point last month has decreased significantly but is still visible. Impacting has decreased but is still higher than before. No maintenance is recommended at this time. Continue to monitor.
Watch	Mill 5 Re Mill 5 Rewind	01-May-07 - Possible gear problem - Gear	The input shaft has gearmesh with sidebands indicating a possible gear defect. No maintenance is recommended at this time. Continue to monitor next month.
Watch	Mill4 Un#1 Mill 4 Unwind #1	02-May-07 - Possible gear problem - Gear	The gearbox points have a 158 Hz vibration peak with sidebanding. This indicates a possible gear defect. This frequency does not match any defined gears. No maintenance is recommended at this time. Continue to monitor next month.

Area O225 Oven 1, 22, 24 & 25

Urgency	Equipment	Problem	Extended Description
Alarm	O1 CF2A Oven 1 Circ Fan 2A	01-May-07 - Imbalance - Motor	Continued Call: The 1x turn speed vibration on the motor outboard horizontal point is increasing. This indicates imbalance or a mounting hardware issue. Recommend inspecting motor for imbalance and mounting hardware for security.
Alarm	O1 CF2B Oven 1 Circ Fan 2B	01-May-07 - Imbalance - Motor	Continued Call: The motor horizontal and axial points show a high 1x turn speed vibration. This may be due to imbalance in the motor or misalignment or loose mounting hardware. Recommend inspecting the motor for imbalance, proper mounting hardware security, and coupling misalignment.
Alarm	O1 CF3B Oven 1 Circ Fan 3B	01-May-07 - Antifriction bearing defect - Air Handler (Fan)	Continued Call: The fan PeakVue point continues to have 4.35x fan speed harmonics. This indicates a possible bearing fault. Levels are about higher than last month. Recommend inspecting the fan bearing for proper lubrication and defects.

Area O234 Ovens 2, 3, 4 & 15

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Predictive Maintenance Summary Report

05/08/07
DAGOLI/1

Urgency	Equipment	Problem	Extended Description
Alarm	O3 CF2B Oven 3 Circ Fan 2B	01-May-07 - Imbalance - Motor	The motor inboard horizontal point has an increasing 1x turn speed vibration indicating imbalance in the motor. Recommend inspecting the motor mounting hardware for security and other defects.
Watch	O15 CF2 Oven 15 Circ Fan 2	30-Apr-07 - Imbalance - Motor	The motor points have an increasing 1x turn speed vibration indicating imbalance in the motor. No maintenance recommended at this time. Continue to monitor next month.
Watch	O15 CF3 Oven 15 Circ Fan 3	30-Apr-07 - Imbalance - Motor	The motor points have an increasing 1x turn speed vibration indicating imbalance in the motor. No maintenance recommended at this time. Continue to monitor next month.

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Predictive Maintenance Detail Report

05/08/07
DAGOLI/1

Area **31-6** **Oven 31 & Mill 6**

Equipment **O31 CF3 Oven 31 Circ Fan 3**

Urgency :

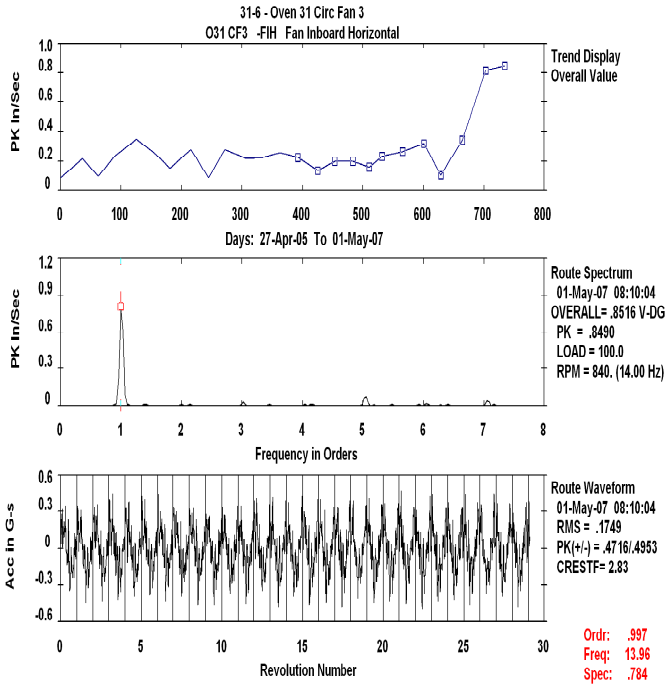
High Alarm

Title: 01-May-07 - Imbalance - Air Handler (Fan)

Explanation: Continued Call:

The 1x turn speed vibration on the fan inboard horizontal point has increased since last data. The imbalance in the fan is getting worse. That is the reason for the increased severity. The fan vibration is also increasing on the motor points indicating the imbalance is being coupled to the motor.

Recommend inspecting the fan for buildup on blades and balancing the fan if removing buildup does not resolve the problem.



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Predictive Maintenance Detail Report

05/08/07
DAGOLI/1

Area **31-6** **Oven 31 & Mill 6**

Equipment **O31 CF2 Oven 31 Circ Fan 2**

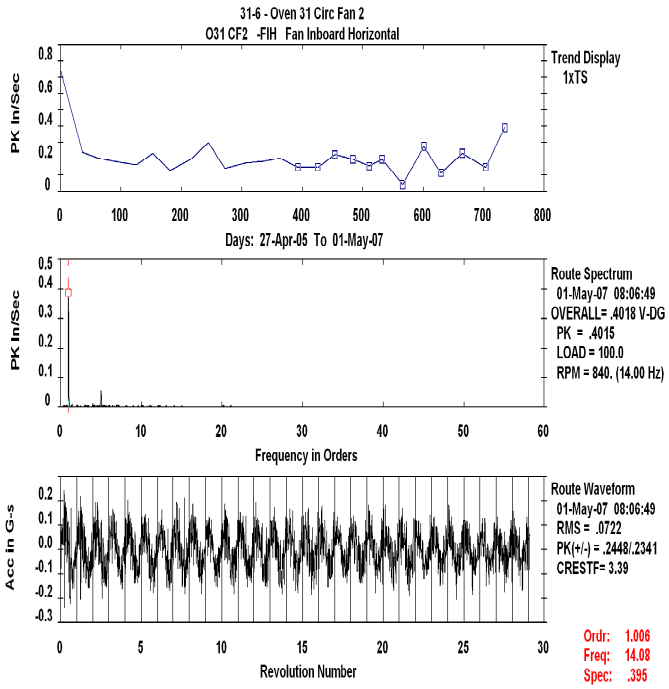
Urgency :

Alarm

Title: 01-May-07 - Imbalance - Air Handler (Fan)

Explanation: The fan inboard horizontal point has an increasing 1x fan speed vibration indicating imbalance in the fan. This is also seen on the motor axial point.

Recommend inspecting the fan blades for buildup and fan for imbalance.



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Predictive Maintenance Detail Report

05/08/07
DAGOLI/1

Area **31-6** **Oven 31 & Mill 6**

Equipment **O31 CF4 Oven 31 Circ Fan 4**

Urgency :

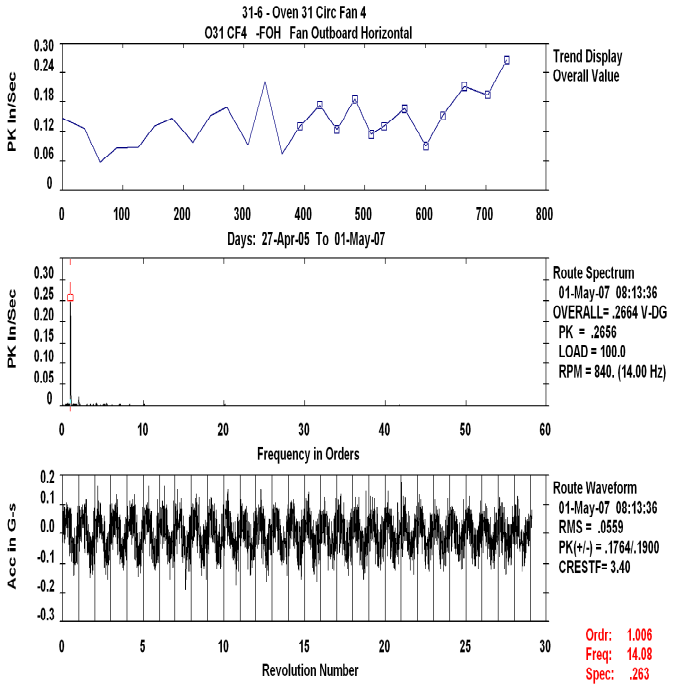
Alarm

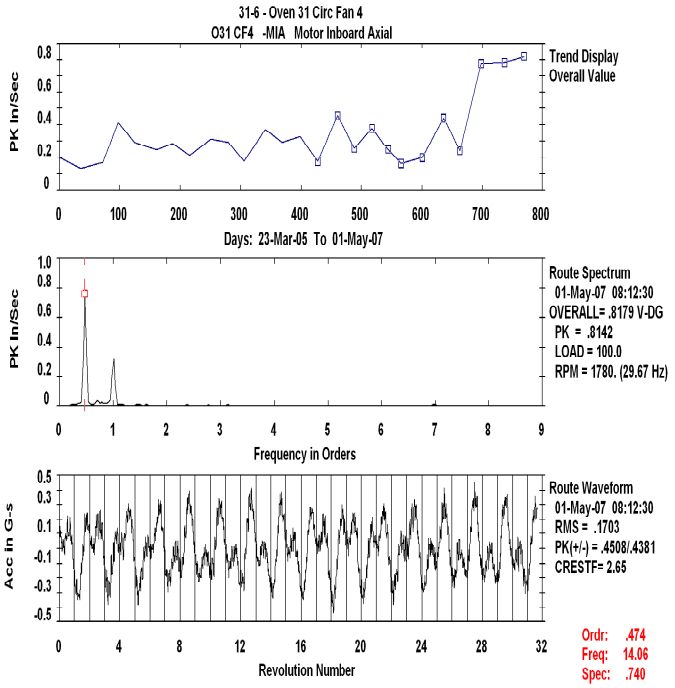
Title: 01-May-07 - Misalignment - Air Handler (Fan)

Explanation: Continued Call:

The motor points have 1x fan speed vibration indicating a misalignment of the pulley/sheaves. The fan 1x vibration is also increasing indicating some imbalance in the fan.

Recommend inspecting the pulley/sheaves for proper alignment and belt tension. Also check the fan blades for buildup.





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Predictive Maintenance Detail Report

05/08/07
DAGOLI/1

Area **M1-5** **Mills 1, 2, 3, 4 & 5**

Equipment **Mill4UnBr1 Mill 4 Unwind Barrel 1**

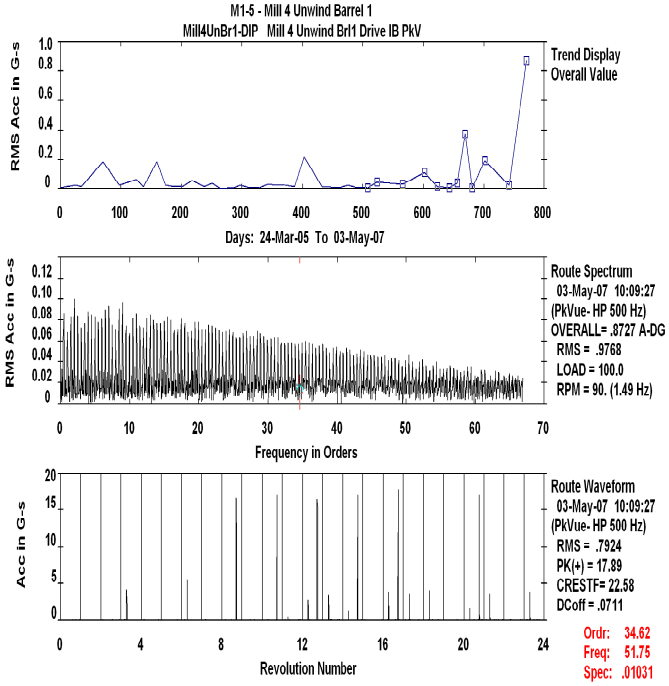
Urgency :

High Alarm

Title: 03-May-07 - Additional Data Requested - Miscellaneous, Barrel Assembly

Explanation: The barrel drive inboard PeakVue point has a significant increase in impacting and 1x turn speed harmonics. No other points have high vibration. Suspect bad data on this point.

Recommend retaking data on this point for analysis.



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Predictive Maintenance Detail Report

05/08/07
DAGOLI/1

Area **M1-5** **Mills 1, 2, 3, 4 & 5**

Equipment **Mill 2 Re Mill 2 Rewind**

Urgency :

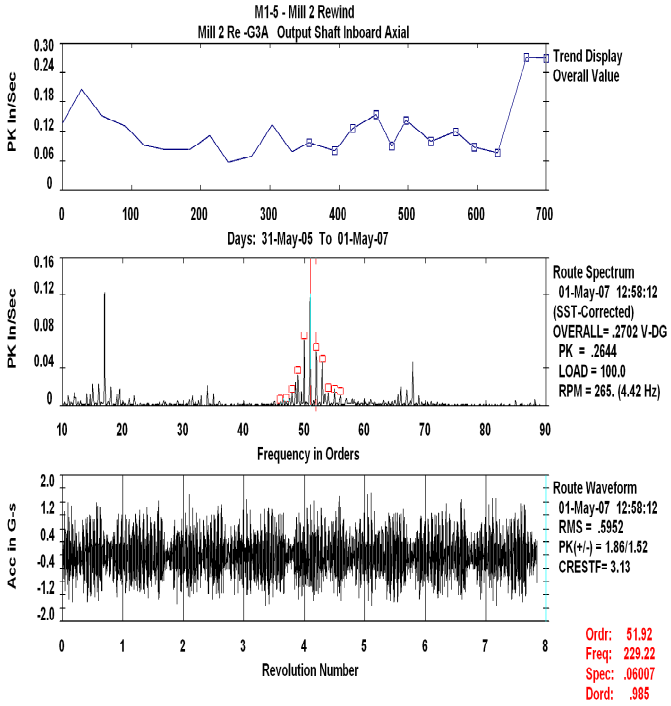
Alarm

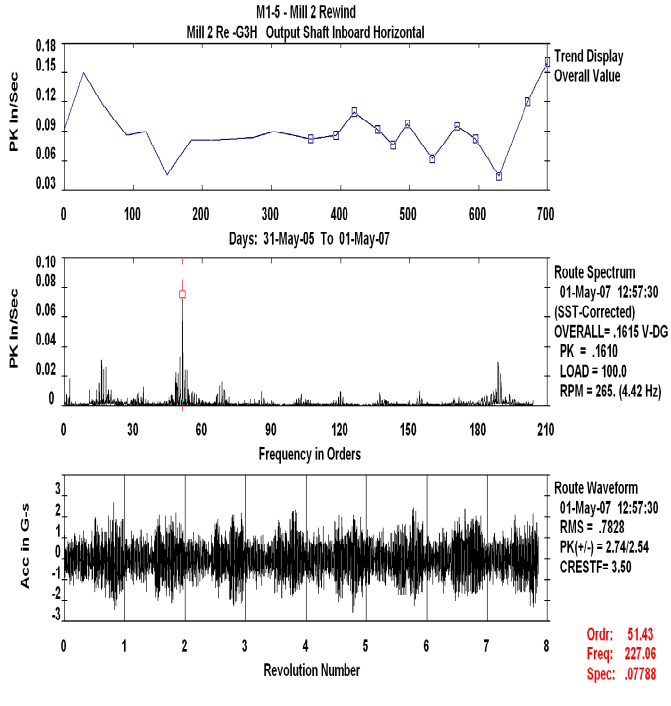
Title: 01-May-07 - Antifriction bearing defect - Gear

Explanation: Continued Call with increased severity.

The gearbox has vibration peaks with sidebands at 1x turn speed. This indicates a bearing defect if speeds are correct. If speeds are incorrect it could be a gear defect.

Recommend taking an oil sample on the gearbox to help determine the source and severity of the defect.





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Process Management

Predictive Maintenance Detail Report

05/08/07
DAGOLI/1

Area **M1-5** **Mills 1, 2, 3, 4 & 5**

Equipment **Mill 4 Re Mill 4 Rewind**

Urgency :

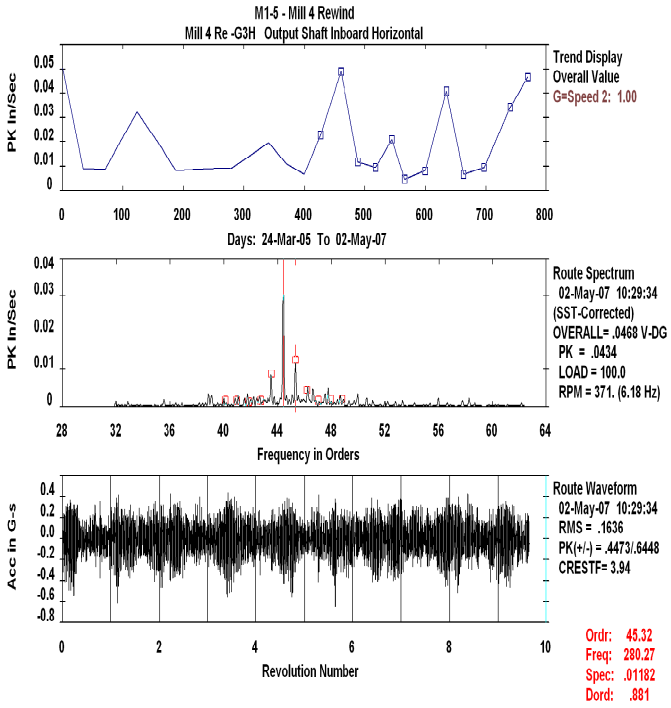
Alarm

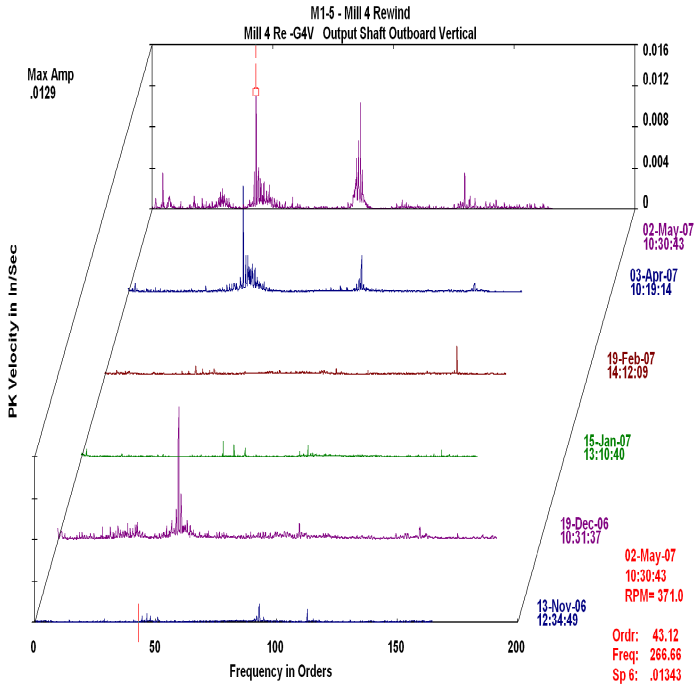
Title: 02-May-07 - Possible gear problem - Gear

Explanation: Continued Call with increased amplitude.

Most gearbox points have 280- Hz vibration with sidebanding. Amplitudes are higher than last month. No fault frequencies match. Suspect this is a gear defect.

Recommend taking an oil sample on the gearbox.





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Process Management

Predictive Maintenance Detail Report

05/08/07
DAGOLI/1

Area **M1-5** **Mills 1, 2, 3, 4 & 5**

Equipment **Mill1UnBrl Mill 1 Unwind Barrel**

Urgency :

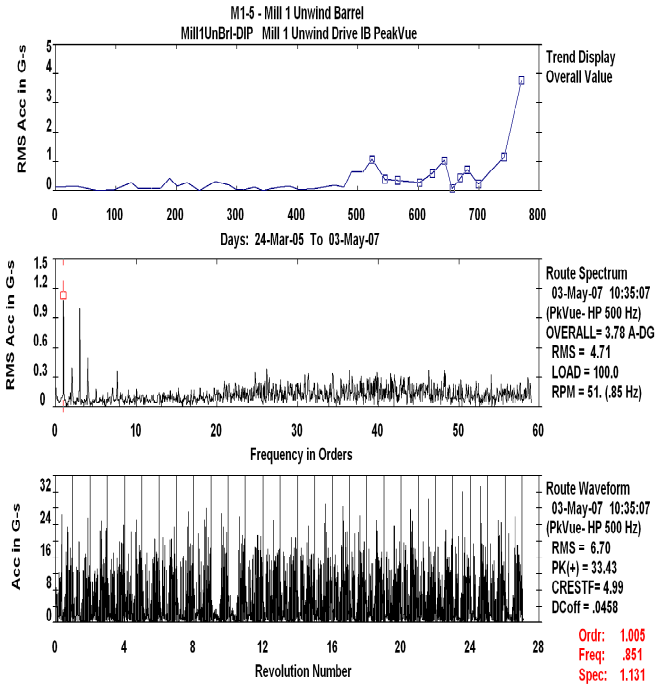
Alarm

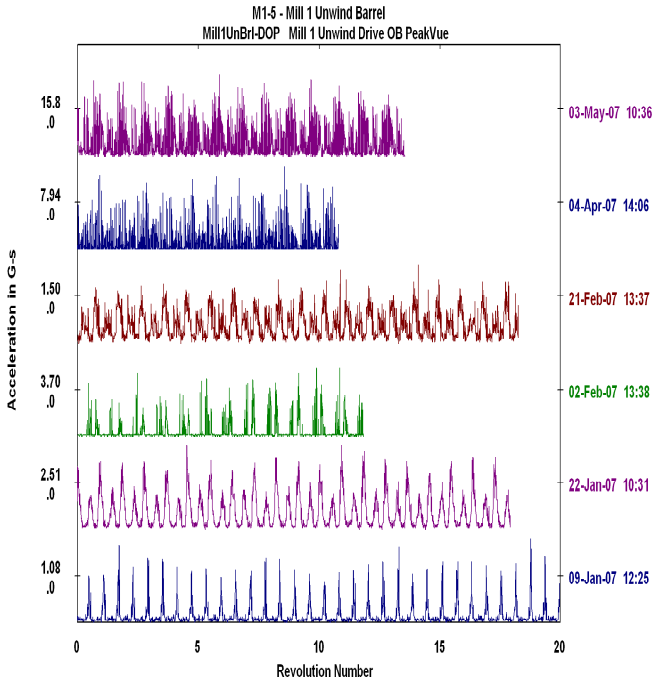
Title: 03-May-07 - High Impacting - Miscellaneous, Barrel Assembly

Explanation: Continued Call:

The unwind drive inboard and outboard PeakVue points have increasing impacting. The waveform is periodic and repeating.

Recommend inspecting the bearings for proper lubrication and defects.





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Process Management

Predictive Maintenance Detail Report

05/08/07
DAGOLI/1

Area **M1-5** **Mills 1, 2, 3, 4 & 5**

Equipment **Mill2ReBrl Mill 2 Rewind Barrel**

Urgency :

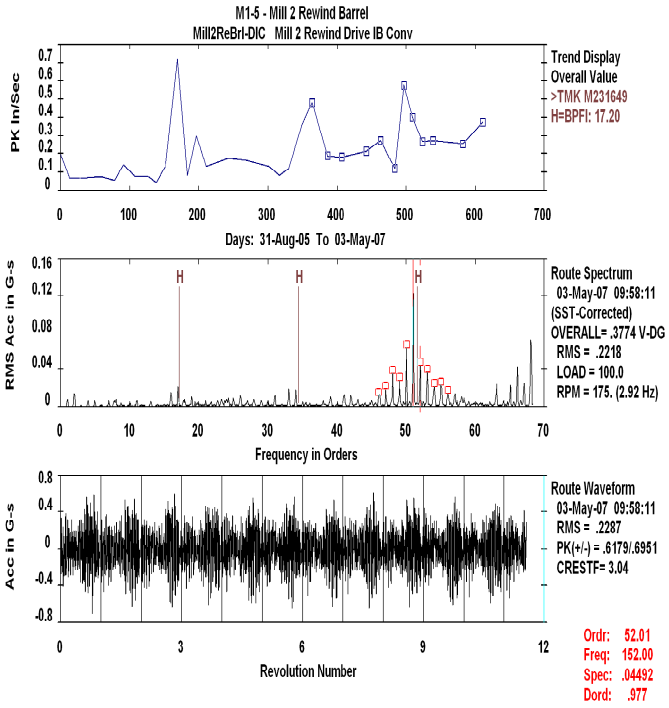
Alarm

Title: 03-May-07 - Antifriction bearing defect - Miscellaneous, Barrel Assembly

Explanation: Continued Call:

The rewind drive inboard point has harmonics of inner race defect with sidebands. This indicates an inner race bearing defect.

Recommend inspecting the rewind drive inboard bearing for defects.



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Process Management

Predictive Maintenance Detail Report

05/08/07
DAGOLI/1

Area **M1-5** **Mills 1, 2, 3, 4 & 5**

Equipment **MCB Mill45 Motor Cooling Blwr Mill 4-5**

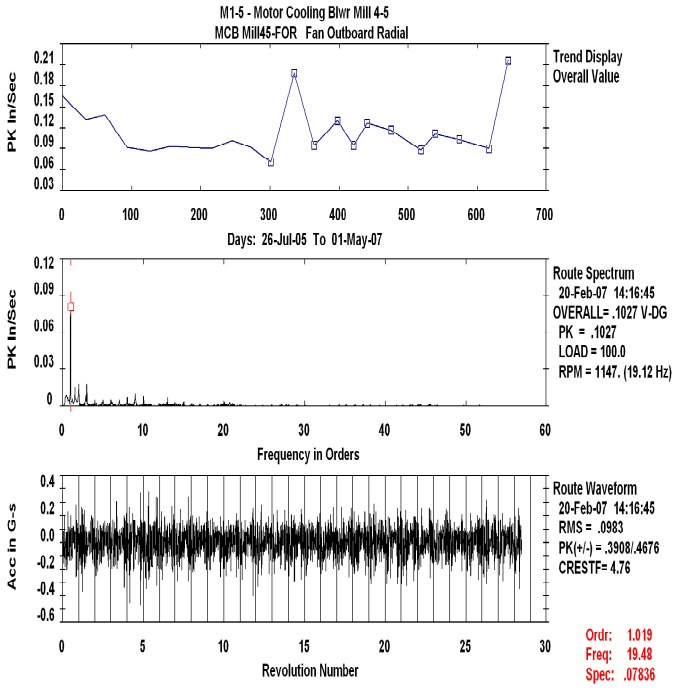
Urgency :

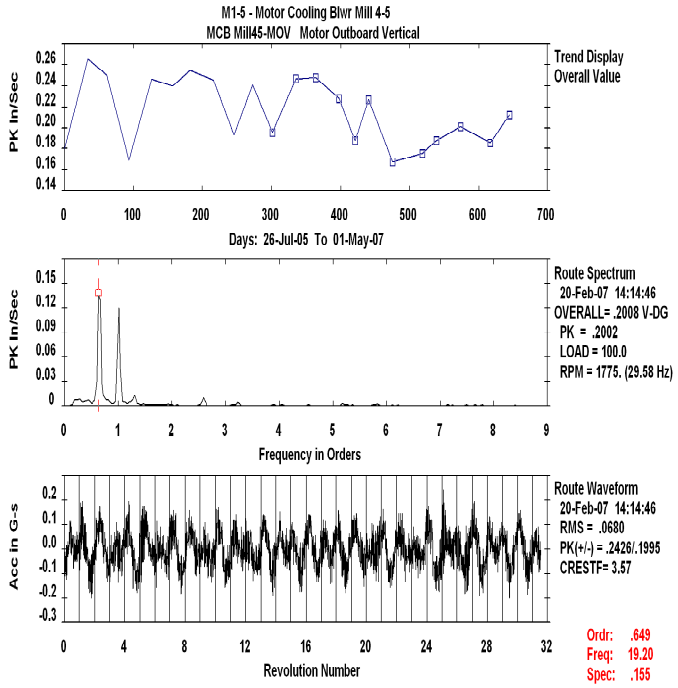
Watch

Title: 01-May-07 - Imbalance - Air Handler (Fan)

Explanation: The fan points have increasing 1x fan speed vibration and the motor points have increasing 1x fan and 1x motor speed vibration. There is little impacting in the waveform.

No maintenance is recommended at this time. Continue to monitor next month.





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Predictive Maintenance Detail Report

05/08/07
DAGOLI/1

Area **M1-5** **Mills 1, 2, 3, 4 & 5**

Equipment **Mill 2 MnD Mill 2 Main Drive**

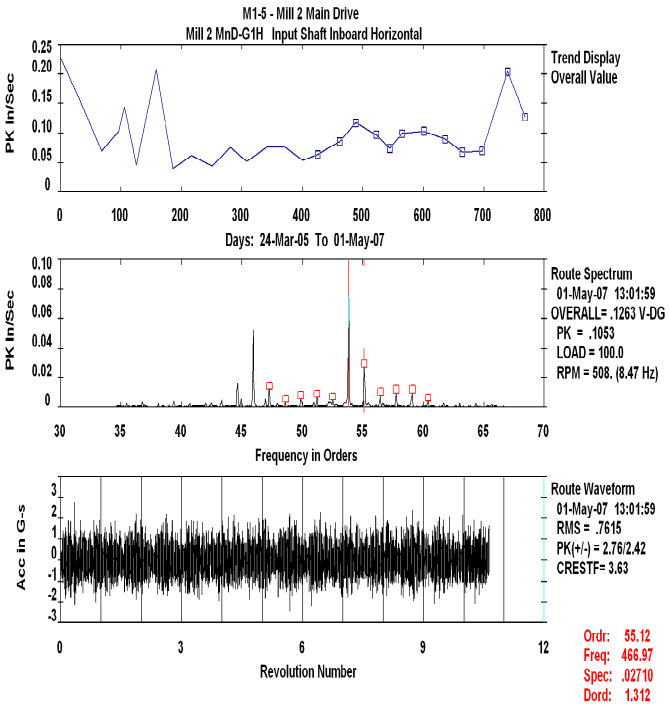
Urgency :

Watch

Title: 01-May-07 - Gear defects - Gear

Explanation: The gear defect seen on the G1H point last month has decreased significantly but is still visible. Impacting has decreased but is still higher than before.

No maintenance is recommended at this time. Continue to monitor.



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Predictive Maintenance Detail Report

05/08/07
DAGOLI/1

Area **M1-5** **Mills 1, 2, 3, 4 & 5**

Equipment **Mill 5 Re Mill 5 Rewind**

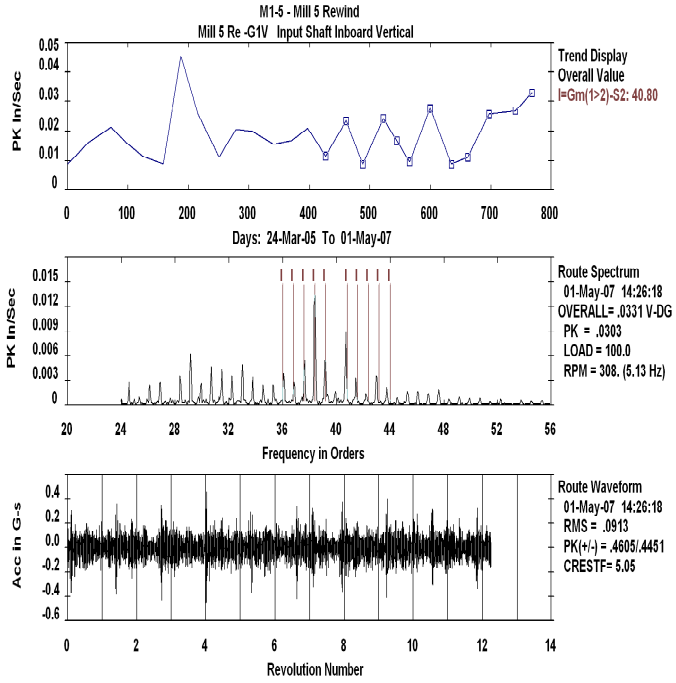
Urgency :

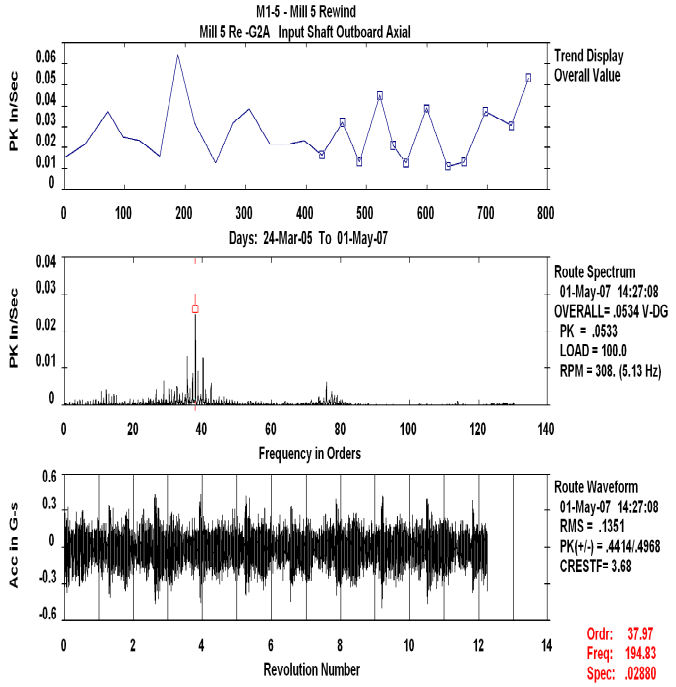
Watch

Title: 01-May-07 - Possible gear problem - Gear

Explanation: The input shaft has gearmesh with sidebands indicating a possible gear defect.

No maintenance is recommended at this time. Continue to monitor next month.





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Predictive Maintenance Detail Report

05/08/07
DAGOLI/1

Area **M1-5** **Mills 1, 2, 3, 4 & 5**

Equipment **Mill4 Un#1 Mill 4 Unwind #1**

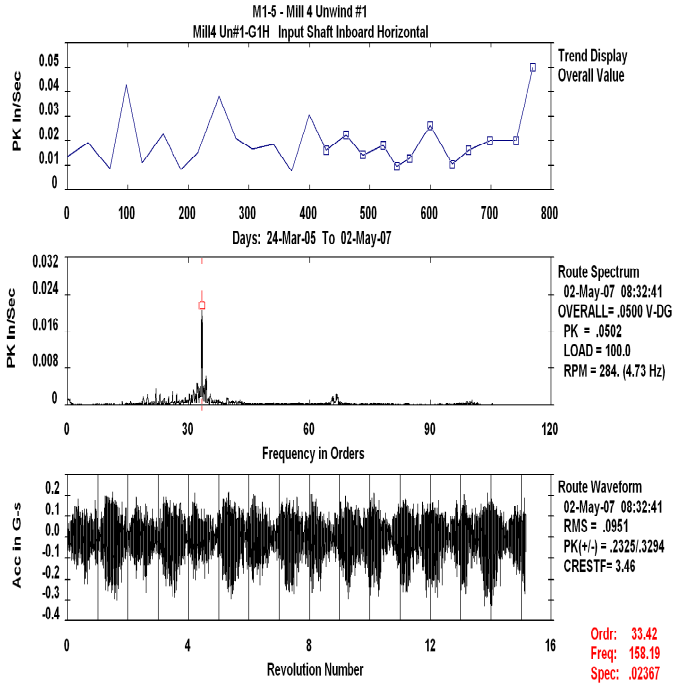
Urgency :

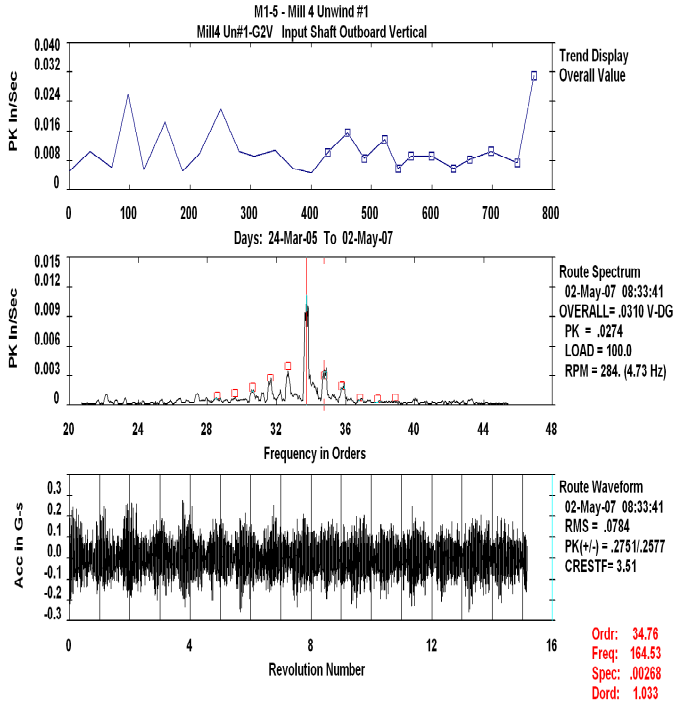
Watch

Title: 02-May-07 - Possible gear problem - Gear

Explanation: The gearbox points have a 158 Hz vibration peak with sidebanding. This indicates a possible gear defect. This frequency does not match any defined gears.

No maintenance is recommended at this time. Continue to monitor next month.





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Predictive Maintenance Detail Report

05/08/07
DAGOLI/1

Area **O225** **Oven 1, 22, 24 & 25**

Equipment **O1 CF2A Oven 1 Circ Fan 2A**

Urgency :

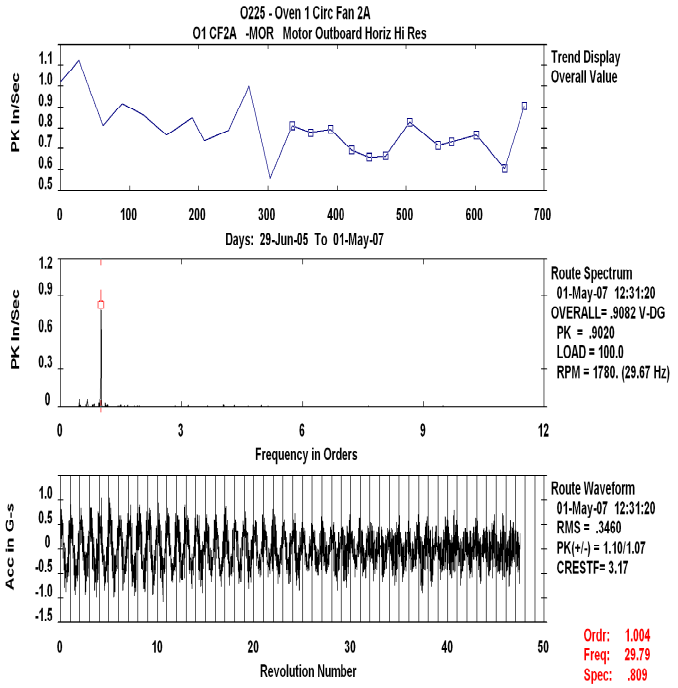
Alarm

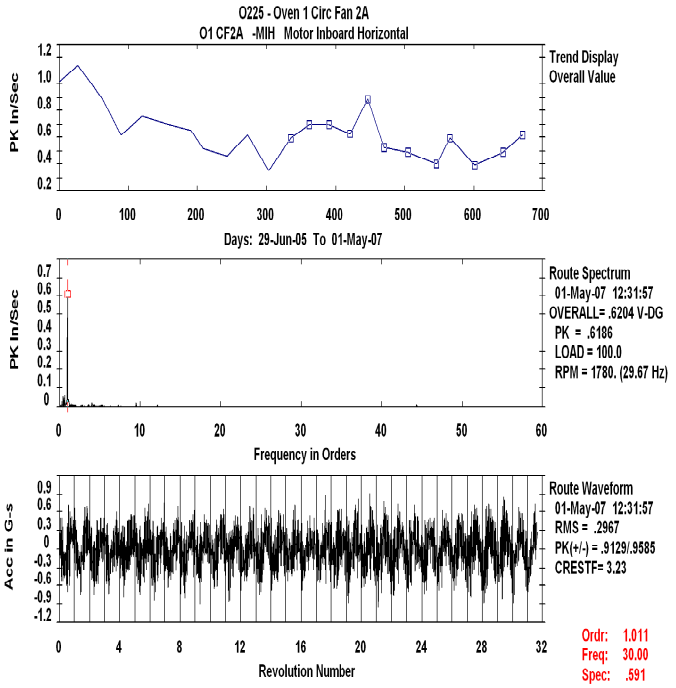
Title: 01-May-07 - Imbalance - Motor

Explanation: Continued Call:

The 1x turn speed vibration on the motor outboard horizontal point is increasing. This indicates imbalance or a mounting hardware issue.

Recommend inspecting motor for imbalance and mounting hardware for security.





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Process Management

Predictive Maintenance Detail Report

05/08/07
DAGOLI/1

Area **O225** **Oven 1, 22, 24 & 25**

Equipment **O1 CF2B Oven 1 Circ Fan 2B**

Urgency :

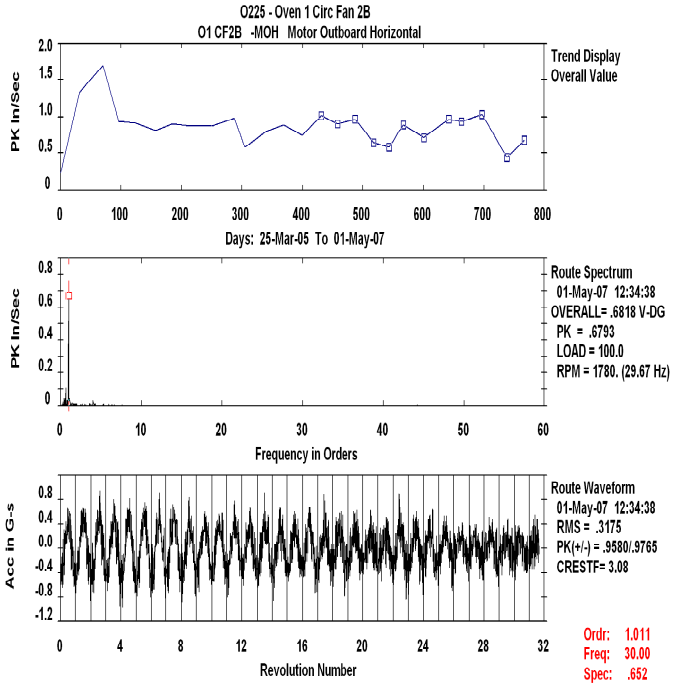
Alarm

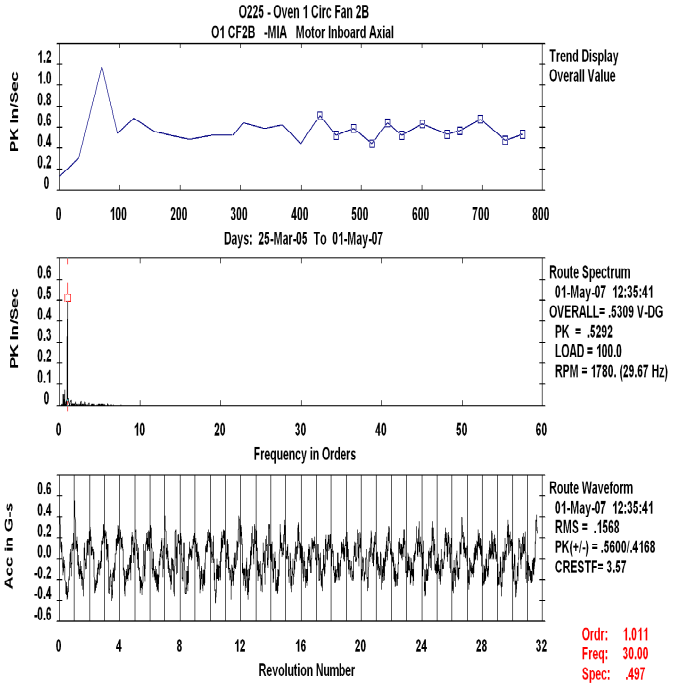
Title: 01-May-07 - Imbalance - Motor

Explanation: Continued Call:

The motor horizontal and axial points show a high 1x turn speed vibration. This may be due to imbalance in the motor or misalignment or loose mounting hardware.

Recommend inspecting the motor for imbalance, proper mounting hardware security, and coupling misalignment.





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Predictive Maintenance Detail Report

05/08/07
DAGOLI/1

Area **O225** **Oven 1, 22, 24 & 25**

Equipment **O1 CF3B Oven 1 Circ Fan 3B**

Urgency :

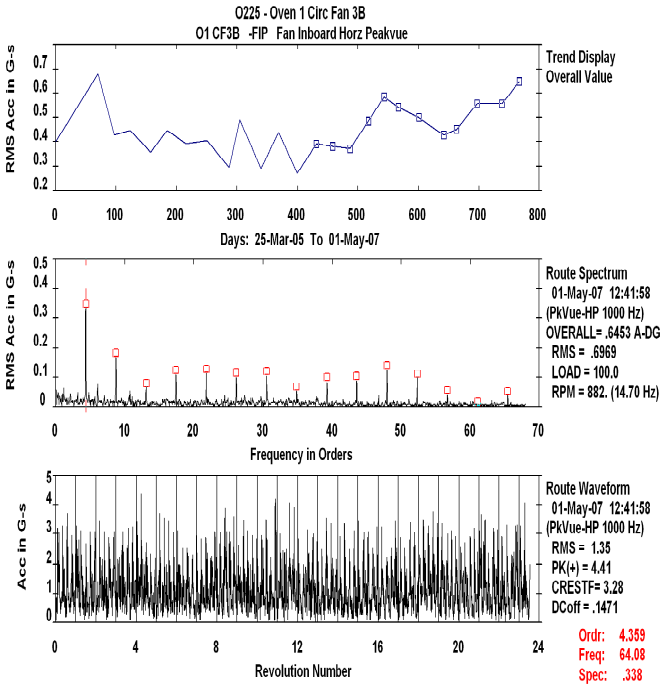
Alarm

Title: 01-May-07 - Antifriction bearing defect - Air Handler (Fan)

Explanation: Continued Call:

The fan PeakVue point continues to have 4.35x fan speed harmonics. This indicates a possible bearing fault. Levels are about higher than last month.

Recommend inspecting the fan bearing for proper lubrication and defects.



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Predictive Maintenance Detail Report

05/08/07
DAGOLI/1

Area **O234** **Ovens 2, 3, 4 & 15**

Equipment **O3 CF2B Oven 3 Circ Fan 2B**

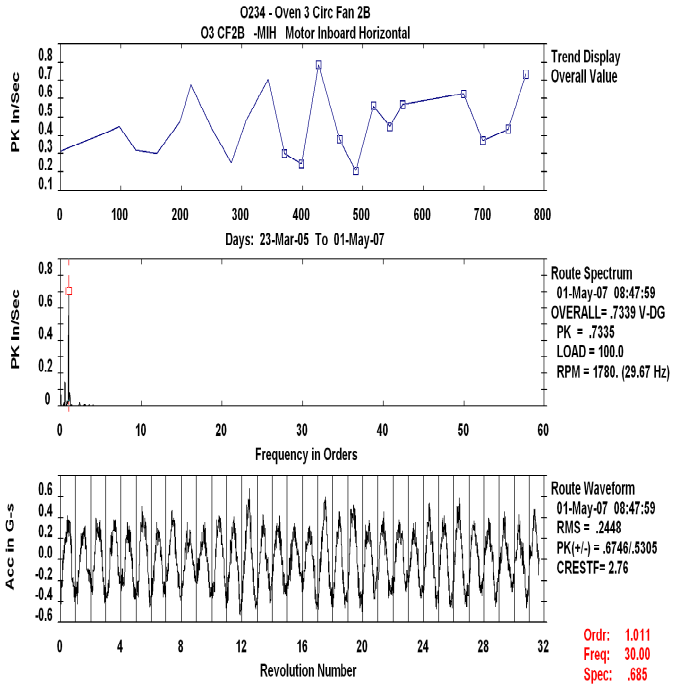
Urgency :

Alarm

Title: 01-May-07 - Imbalance - Motor

Explanation: The motor inboard horizontal point has an increasing 1x turn speed vibration indicating imbalance in the motor.

Recommend inspecting the motor mounting hardware for security and other defects.



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Predictive Maintenance Detail Report

05/08/07
DAGOLI/1

Area **O234** **Ovens 2, 3, 4 & 15**

Equipment **O15 CF2 Oven 15 Circ Fan 2**

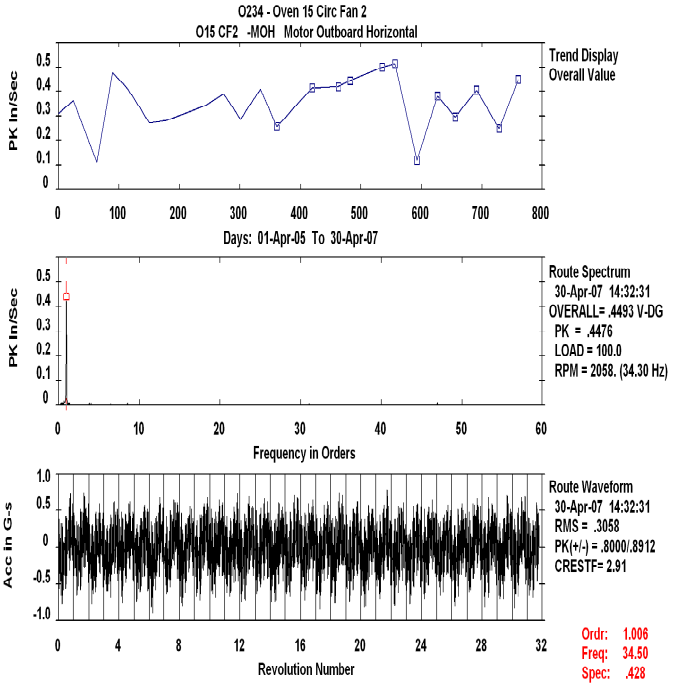
Urgency :

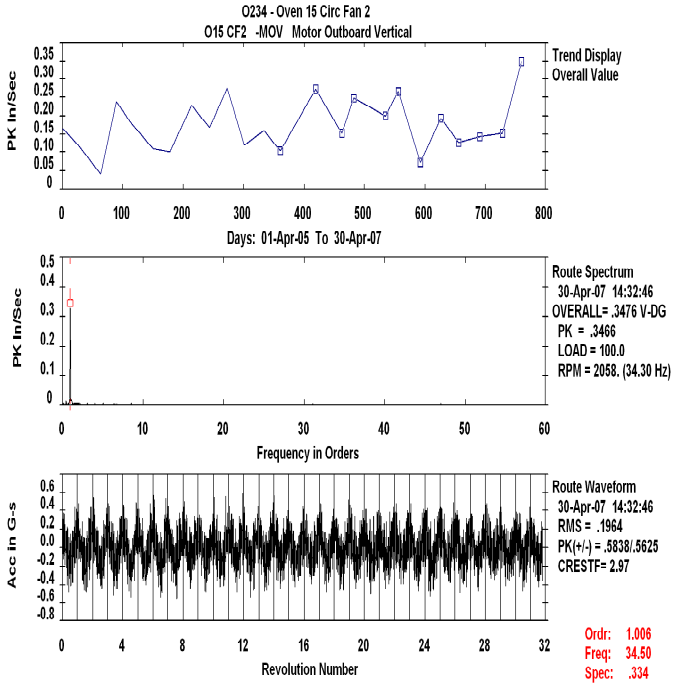
Watch

Title: 30-Apr-07 - Imbalance - Motor

Explanation: The motor points have an increasing 1x turn speed vibration indicating imbalance in the motor.

No maintenance recommended at this time. Continue to monitor next month.





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Predictive Maintenance Detail Report

05/08/07
DAGOLI/1

Area **O234** **Ovens 2, 3, 4 & 15**

Equipment **O15 CF3 Oven 15 Circ Fan 3**

Urgency :

Watch

Title: 30-Apr-07 - Imbalance - Motor

Explanation: The motor points have an increasing 1x turn speed vibration indicating imbalance in the motor.

No maintenance recommended at this time. Continue to monitor next month.