# HAZARD MONITORING

HAI	RVESTENGINEERINE	nk pr	hware Rev	H
	Bin 8 Bottom Conveyor T Status:	ail Section (Node	ID: 37)	Bir
Status	Warning: North misalignme	nt.		W
Event	Status:			۱.
Resolution	Input 1: Allignment - North + 28 F	+ 27 F	Details	
S History	Input 2: Bearing - North	-10 F	Details	Se
Administrative Tools	Input 3: Allignment - South	-13 F	Details	s
About	Input 4: Bearing - South 27 F	-10 F	Details	
🖒 Log Off	Input 5: Speed - Tail Shaft	180 RPMs	Details	
			Details	8
	Signal Battery Comm Link Boost	Details	Close	
	Running 🚦 Normal 📕	Warning I	Forced Shutdown	

Bin 8 Bottom Conveyor					
Status:					
Warning: Tail section north misalignment.	00021.0 Running Hours				
Silence Alarm Reset Forced Shutdown	180.0 RPMs				
Sections:					
Section A: Tall Section Status: Warning: North misalignm	ent.				
Section B: Head Section E Status: Normal					
Section					
Section	1111				
Section EE EE I					
Section					
Alarm ! Bypassed	Disabled				

## **Lowest Installed Cost**

Industrial Wireless Technology

### Complete Monitoring

Alignment Slow-downs **Bearings** Plug Switches

### Simple

Intuitive Operation Fast and Easy to Learn No Small Displays or Coded Messages

### Reliable

Self Diagnostics **Exceptional Moisture Resistance** Prompt Knowledgeable Service

### Fewer False Alarms

Automatic Setpoint Adjustment **Cold Weather Starting Option** 

### Connected

**Connect to Your Controls Connect to Your PLC Connect to Your Network Connect to The Web** 



ENGINEERING LLC



#### **RELIABLE - SIMPLE - COMPLETE**

Reliable, yet less expensive. Is that possible? Yes! For years much of the cost of an installed hazard monitoring system has been in piping and wiring. Our systems

Event Resolutio

(S) History

Tools

📣 About

🔥 Log Off

User Name: John Smith

North Receiving Belt

North Receiving Leg

West Receiving Drag

West Receiving Leg

Shipping Leg

Main Bins Conveyor

West Transfer Conveyor

Bin 1 Bottom Conveyor

Bin 1 Top Conveyor

Bin 2 Battom Conveyor

Bin 2 Top Conveyor

Bin 3 Bottom Conveyor

Bin 3 Top Conveyor

Bin 4 Bottom Conveyor

Bin 4 Top Conveyor

Bin 5 Bottom Conveyor

User Goup: Plant Manage

Bin 5 Top Conveyor

Tank 1 Bottom Conveyor

Tank 1 Top Conveyor

Tank 2 Bottom Conveyor

Tank 2 Top Conveyor

Drier Reclaim Leg

Drier Reclaim Drag

Dust Reclaim Feed 1

160

120

80

40

— Warning

Dust Reclaim Feed 2

Dust Reclaim Main

Running 🚦 Normal 🔜 Warning 📒 Forced Shutdown

were designed to communicate wirelessly from the start. It wasn't an add on or a modification. Consistent operation is ensured with self diagnostics, transmission logging, and redundant receivers. It is now possible to invest in better sensors, better displays, and more intelligent controls, providing system reliability, ease of use, and fewer false alarms. Buy functionality not costly installation.

#### ALL STATUS AT A GLANCE

On the status screen, a single indicator for each piece of equipment shows when the equipment is running and its status. A user can instantly spot a problem and then touch the display screen to bring up specific information for

the equipment. Users with proper authority, can silence alarms or clear a forced shutdown, all from one screen. An hour meter, and all sensor status is also displayed when a piece of equipment is selected. As an option, we can provide a graphic view of your facility with information overlaid.

#### REAL-TIME INFORMATION

Information is displayed as it happens. There are no polling delays because the intelligent transmitter nodes send information whenever there is a change. The live chart display is

a convenient way to view the current status of a sensor. Interactive history charts are also available. And like all displays, they're also available on your network and the Web.





Main Bins Conveyor

Warning: Snub Pully Bearing West over temperature.

Norma

Section C: Drive East

ection D: Drive West

Norma

Live Chart showing

setpoints and run time

conveyor speed,

Alarm 🚺 Bypassed 🗾 Disabled 🔜

2011-02-09 04:24:03

10:17<sup>1</sup> 10:18<sup>1</sup> 10:19<sup>1</sup> 10:20<sup>1</sup> 10:21<sup>1</sup> 10:22<sup>1</sup> 10:23<sup>1</sup> 10:24<sup>1</sup> 10:25<sup>1</sup> 10:26<sup>1</sup> Tail Shaft Speed

Status



10:27

Close

If you're planning new controls, then a single ethernet cable will link advanced hazard monitoring to your PLC. But even if your controls are older, we can supply a hardwired interface that ties everything together.

#### BETTER PROTECTION - FEWER FALSE ALARMS

Minimize false alarms and still provide the best protection possible. Setting a bearing alarm at 130 degrees may be fine for a hot summer day, but when its 10 degrees outside, the bearing may self destruct before the alarm sounds. Ambient sensors placed on each side of the equipment are used to automatically adjust the setpoints to eliminate that problem and give the operator an early indication of a potential failure.

False alarms can also occur in cold weather when belts are wet or icy and startup may be prolonged. The cold weather start option carefully tracks speed and start time to prevent equipment damage while minimizing unnecessary shut downs.



#### ACCOUNTABILITY

When an event occurs, it is automatically logged. A user can view a graph of the event, and after investigating, document the cause and the resolution. To ensure the integrity of the log, only users with the proper authority can edit or close events. Event logs may be printed for documentation.

#### Security

The plant administrator can set the level of access and control for each user. Internet access is secure with our proprietary server and full password protection.

#### FULL INTEGRATION WITH YOUR CONTROLS

#### WEAR DETECT SENSORS and SELF DIAGNOSTICS

Until now, only a visual check would show a worn out rub block. But with InstaLink, a warning will be displayed if a block is worn too much. Transmitter self diagnostics, transmission logging and sensor correlation ensure the system is operating properly.

PROMPT, KNOWLEDGEABLE SERVICE

## SYSTEM FEATURES

- Exceptional moisture resistance
- Transmit-on-change keeps all data current
- Continuous self check and transmit routines
- Redundant receivers
- Multipoint ambient compensated setpoints
- Seamless connection to PLCs and other controls
- History logs and printable graphs
- Live Chart real time display
- Cold weather starting option
- Interval monitoring option
- Email and dial out for user selected events
- Scalable, add more transmitter nodes at any time
- User friendly slow-down test and documentation
- **96 nodes per system with up to 576 sensors**
- Made with all non corrosive materials
- Serviced and sold by Harvest Engineering LLC

### QUICK CHANGE

Positive locking. No tools required. No small parts to drop. All stainless and aluminum.



#### Specifications and features subject to change without notice.

### RUB BLOCK WITH WEAR DETECT





The **only** rub block that displays an on screen warning when the block is worn out. Brass with a heavy aluminum backer to prevent extreme temperature buildup.

### TEMPERATURE SENSOR



Temperature sensors may be screw mounted or magnetically attached to bearings, gear boxes, or motors. Weatherproof cables and connectors are standard. If a sensor is unplugged, an error is generated immediately.

### SPEED SENSOR WITH NO MOVING PARTS

Speed and slow-downs are combined in one sensor with no moving parts. A small magnet attaches to the shaft or bearing. **Not affected by moisture.** 

#### SENSOR CONNECTOR WEATHERPROOF WITH GOLD

PLATED CONTACTS



Dirty on the outside, but clean and dry on the inside. Just plug in sensors and tighten the retaining ring. **No miswiring, and no more tiny wires to strip and connect.** 

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