Critical points:
- Develop Operations involvement from the start.
- Provide continuous feedback to Operations (i.e. follow-ups resulting from the findings).
- Design each Data collection route to take less than 30 min.
- Develop an Automated Reporting System.

Future of the program:
- Continue expansion to all mill areas, through the SRCM process.
- Implementation of ODR through Automated Diagnostic System (pDIS).
- Target ZERO unpredictable failures.

CMMS Software, Asset Health Management Software and Predictive Maintenance Instruments/Software:

- Skf Monitoring Suite 7.0.1.32.0 Includes Aaptitude Decision Support System, Skf Analyst, Skf Monitor, Skf Oil Analysis, Skf Human Interface Modules
- Riotech Standard 1, 4.3.28 Wireless Vibration Monitoring Software
- Rovewer, Client Wireless Monitoring Software
- Vibration Calculator, Vibration Points Set Up Tool
- Thermal Alignment Offset Tool
- Flir Quick Report 1.2, Thermal Scan
- Riovewer, Client Wireless Monitoring Software
- Expertise, Oil Condition Based Greasing
- Opc2, Open Communication Software
- Mops Data Historian, Skf Oil Analysis, Skf Human Interface Modules
- Cmms Avantis Pro, Riovewer, Client Wireless Monitoring Software
- Cmms Avantis Pro, Skf Monitoring Suite 7.0.1.32.0 Includes Aaptitude Decision Support System, Skf Analyst, Skf Monitor, Skf Oil Analysis, Skf Human Interface Modules
- Btarcm.com On-Line Monitoring System
- Eplus Esso Lubrication Software
- Flir Quick Report 1.2, Thermal Scan
- Expertise, Oil Condition Based Greasing
- Opc2, Open Communication Software
- Mops Data Historian, Skf Oil Analysis, Skf Human Interface Modules
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- Btarcm.com On-Line Monitoring System
- Eplus Esso Lubrication Software

Instruments:
- Skf Ax 2 Newest Route Based Data Collector
- Skf Gc 1 Route Based Instrument
- Skf Crmv60 1 Route Based Instrument
- Skf Dmre 5 Continuous Cm Diagnostic System, 2 Turbines, 2 Pumps
- Skf Imx 2 Continuous Protection And Diagnostic System, Chippers
- Skf Wmx 50 Wireless Cm Units, Millwide
- Skf Microlog Inspector 6, Odr, Operator Driven Reliability
- Riotech Wireless Units 2 Monitors
- Crane And Kiln
- Skf Baker Off-Line El Motor Monitoring System
- Skf Baker Off-Line Monitoring System
- Bently Nevada 3000 1 Turbine Protection System
- Abb 1 Turbine Protection System
- Fluke Thermal Imaging Camera
- Flir Thermal Imaging Camera
- Flir Thermal Gun
- Ge Borescope
- Pruftechnik Optiline Laser Alignment Tool
- Pruftechnik Easy Laser Alignment Tool
- Ultrasound Sdr 206, Leaks, Slow Speed Applications, Noise
- Ultrasound Caddy 3 Condition Based Greasing
- Skf Mcd 2 Condition Based Greasing

Utilities ODR, from left: Dave Ingham, (PdM Supervisor), Jamie MacDougall, (Shift Engineer), Ken Hunter-Oglow (Woodroom Operator), Perry Parker, (Assistant Chief Engineer), Pat Farrell (Recaust Field Operator), Steve Turner (Recaust Field Operator), Kirk Cottle, (Execution Manager, Dragan Trivanovic, (PdM Manager)

Zellstoff Celgar

Zellstoff Celgar’s Operator Driven Reliability (ODR) program began in the middle of 2010 with the receipt of a proposal from SKF. The proposal outlined the objectives of an ODR program, the methodology of implementation, training and work plan. The main objective of the program was to involve the Operations department in some of the maintenance activities. This would free up some maintenance resources to focus on more advanced preventative and predictive maintenance strategies.

The success of the program required the full support of the management team and operations department. Taking ownership and providing the driving force from inside Zellstoff Celgar, while maintaining a close partnership with SKF would be vital to its success. Management and Operations recognized the value of this collaborative, proactive approach and support and endorsement was received.

The next step was to build the program. No one knows the equipment better than those that are operating it every day, so the involvement of the Operations team was fundamental to building the routes, inspection schedules and procedures.

Now, three years later, we have expanded from the pilot project on the #2 Machine to four other areas; #1 Machine, Power Boiler, Recast and Woodroom. Next on the list is the Digester area.

We currently inspect 400 machines per week through the ODR schedule. On average 37 follow-ups result from the route information. This new inspection process has changed how our PdM Group functions. Instead of standard route based data collections, our technicians now spend much of their time on follow-ups identified through the ODR program as well as our continuous monitoring systems. The overall result is earlier detection on worn and failing equipment, and a high level of operator ownership.

• Target ZERO unpredictable failures.
• Implementation of ODR through Automated Diagnostic System (@DS).
• Continue expansion to all mill areas, through the SRCM process.
• Develop Operations involvement from the start.
• Provide continuous feedback to Operations (i.e. follow-ups resulting from the findings).
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Critical points:
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Future of the program:
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