

PIMA Manufacturing Reliability Track

**The Human Factor in
Manufacturing Reliability**

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Solvay Paperboard, LLC







Solvay Paperboard at a Glance

- **Located in Syracuse, NY**
- **Founded in 1994, one liner machine producing 90,000 tpy, 71 employees**
- **Expansions in 1999 and 2002**
- **Currently three machines producing 700,000 tpy of liner and medium, 243 employees**
- **Private concern held by a partnership of four independent box manufacturers**

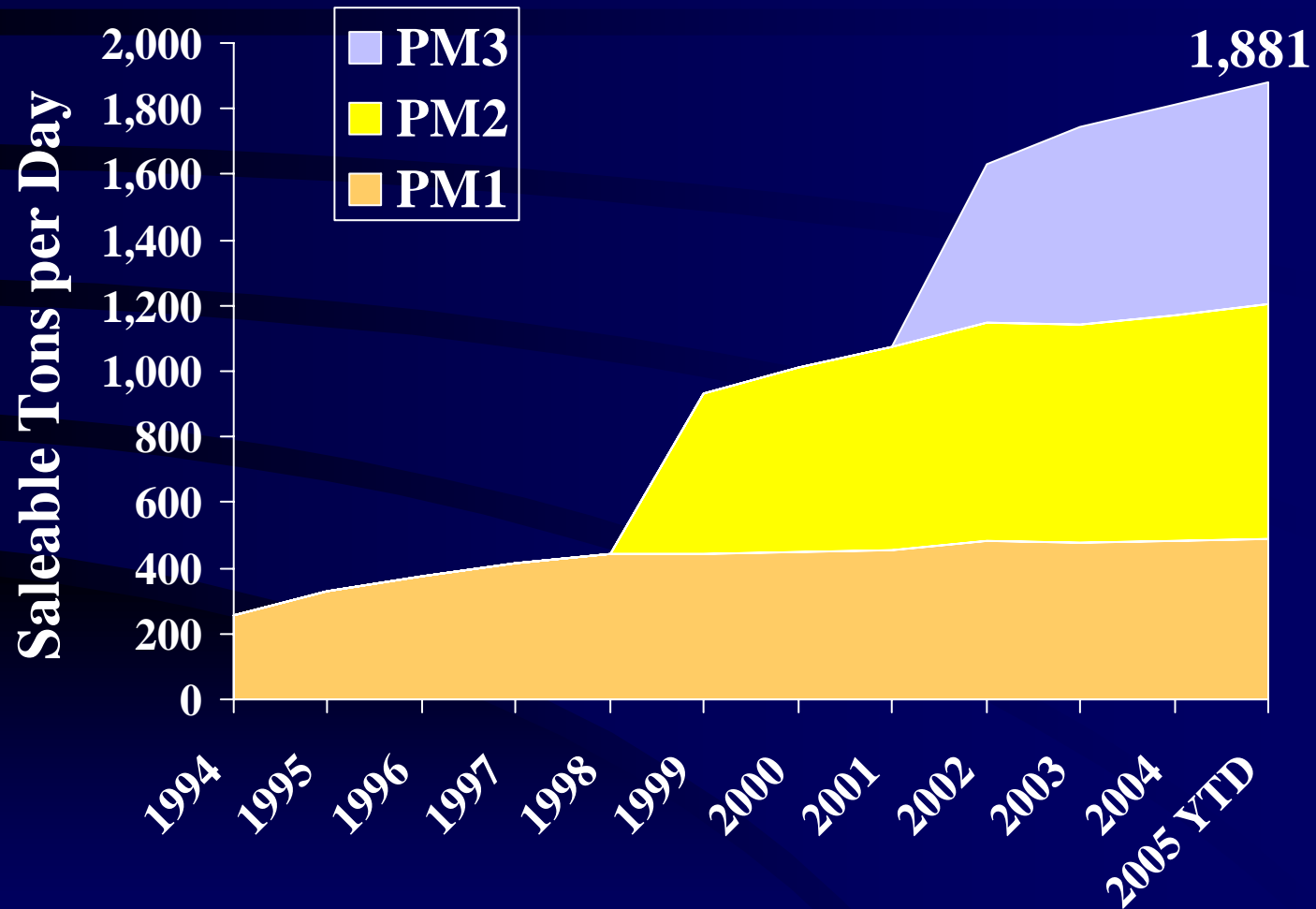
Solvay Paperboard at a Glance

- **Team Concept Work Culture**
- **100% Recycled Furnish**
- **Efficient/Simple Infrastructure**
- **High Efficiencies**
- **Bottom Decile Cost Position**
- **Innovative Waste Recycling**

Why Manufacturing Reliability Is Important to SPB?

- **Our business model relies on high reliability**
- **JIT material and finished product systems**
 - **Three days of OCC inventory on hand, all under roof**
 - **All manufacturing is made to order, no inventory. All product ships within one day**
 - **OCC pick up tied directly to product shipment**
 - **OCC pick up on-time rate over 99%**
 - **Majority of shipments handled by domiciled contract carrier or by rail**

The Results



The Results

Liner Machines

- **Average Linerboard PM efficiency 95%**
- **Yield percentage 99%+**
- **Unscheduled downtime approx. 2.5%**
- **Break Lost Time approx 1.0% – 1.3%**

The Results

Medium Machine

- **Average Medium PM efficiency 92+%**
- **Yield percentage 99.5%+**
- **Unscheduled downtime approx. 5.0%**
- **Break Lost Time approx 2.5%**

Team Concept Work Culture Results Through People



Team Concept Work Culture Results Through People

- **Mill Needs Hierarchy**
 - **Mill needs**
 - **Team needs**
 - **Individual needs**
- **Mill Priority System**
 - **Safety**
 - **Quality**
 - **Cost**
 - **Productivity**

SPB Team Concept Elements

Results Through People

- **Consensus Decision Making Process**
- **Performance Planning and Review (PPR)**
- **Performance Issue Resolution (PIR)**
- **Pay For Skills**
- **Peer Promotion**
- **Standing Committees**

Consensus Decision Making Process

- **Consensus IS.....**
 - **Finding a solution which can be supported by all team members**
 - **Everyone supports the decision**
 - **Everyone understands the decision and can explain it**
- **Consensus IS NOT.....**
 - **A unanimous or majority vote**
 - **Everyone being perfectly satisfied**
 - **Without conflict or strong differences in the beginning**

Consensus Decision Making Process

- **Begins with.....**
 - **All boundaries being communicated**
 - **Identify a common goal**
 - **Open discussion by all participants**
 - **Resolve extensive disagreement**
 - **Confirm small agreements often**
 - **Stay in process until consensus reached**

Performance Planning and Review

- **Focus employees on tasks that have the greatest impact on overall business performance**
- **Ensure that individual objectives align with broader objectives of the mill and company**
- **Recognize achievement of results as well as demonstration of sound business principles and processes that get results**
- **Currently utilized for all salaried employees**
- **Migrating process to all mill employees**

Performance Issue Resolution

- **Coaching is a form of feedback and is an on-going activity that ensures performance expectations are being met**
- **Team responsibility to recognize and resolve any performance issues of their members**
- **Every employee's responsibility to bring issues they cannot resolve one-on-one to the Team's attention**
- **Process Steps**
 - **Informal Coaching**
 - **Formal Coaching**
 - **Decision Making Leave (DML)**
- **Management Role/Boundaries**

Pay For Skills

- **Compensation based upon Knowledge and Peer Recognition**
- **Training Process overseen by Training Advisory Committee, Shift Teams and Home Station Groups**
- **Promotion from one Job Family to next overseen by Peer Promotion Committee**
- **9 Skills in Production, 3 in Maintenance**

Technician Progression System

Job Family IV

Stock Prep
Tech

Dry End
Tech

Wet End
Tech

T7-9

Job Family III

Winder Tech

Stock Prep
Assist

T5-6

Job Family II

Winder Assist.
Tech

Mobile Equip
Outbound

Inbound
Warehouse
Tech.

T2-4

Job Family I

Team Support
Tech.

T-1 Entry

Maintenance Technician Progression System

Job Family III

Senior Shift
Maintenance
Technician

BU Senior
Maintenance
Technician E&I

BU Senior
Maintenance
Technician
Mech

Reliability
Maintenance
Technician

MT 3

Job Family II

Maintenance
Technician
Day/Shift

MT 2

Job Family I

Entry
Maintenance
Technician

MT1

Training Process

Academic Training

- Technical Training Manuals
- Critical Task Procedures
- Technical & Non-Technical Training

Qualifications

- **Written Tests**
- **Safety Walk-thru**

On the Skill Training

- Hands on training
- Team members as mentor
- Start-ups & shutdown

Qualifications

- **Consensus of Home Station Group & Area Manager**

Skill Demonstration

- Actual Skill Performance
- Minimal Supervision
- Minimum hours 96 - 240 hours

Qualifications

- **Consensus of Home Station Group & Area Manager**
- **Final Walk-thru**

Standing Committees

- **Solvay uses Standing Teams to manage our business**
 - **Management Empowered Teams to be responsible & accountable for decisions**
- **As compared to.....**
 - **Management asking for volunteers to help make recommendations to solve a problem**

Standing Committees

- **Vertical Teams**
- **Home Station Groups**
- **Production/Maintenance Training Advisory Committee (PTAC, MTAC)**
- **Peer Promotion Committee**
- **New Employee Hiring Committee**
- **Safety Leadership Team**
- **Lockout/Vessel Entry Committee**
- **Activities**
- **Quality Management Team**

Vertical Teams

- **Shift Teams are responsible for the production process 24 hours – 7 days**
- **Shift Teams are Self Directed**
- **Shift Teams are led by Shift Team Coordinators**
- **STC's are not Bosses... they are Leaders**
- **Both report to the Production Manager**

Shift (Vertical) Teams

Home Station Groups (Horizontal Teams)

	A	B	C	D	Maint.
Paper Machine	Wet End Dry End	Wet End Dry End	Wet End Dry End	Wet End Dry End	Maint.
Stock Prep	SPOT SPAT	SPOT SPAT	SPOT SPAT	SPOT SPAT	Maint.
Winder	WAT WT	WAT WT	WAT WT	WAT WT	Maint.
Inbound Warehouse Technician	IWT	IWT	IWT	IWT	Maint.
Mobile Equipment Outbound	MEO	MEO	MEO	MEO	Maint.
Shift Maintenance	Shift Maint.	Shift Maint.	Shift Maint.	Shift Maint.	Shift Maint.

Focus Five

- **Operating Vertical Teams in our concept begin the day with a short team huddle**
- **Focus 5 is intended to bring the team together and begin with a common understanding of the issues to face the team that day**
- **Standing Agenda is Safety, Quality, Cost, Production**

Home Station Groups

- **Standing teams comprised of horizontal Qualified Area Technicians**
- **Responsible for Continuous Improvement within their functional area in:**

Safety

Production

Quality

Training

Cost

Housekeeping

Home Station Group Roles

- **Shutdown planning**
- **New equipment checkout / startup planning**
- **Chemical use reduction**
- **Fiber loss reduction**
- **Training material development**
- **Housekeeping improvement**
- **ISO 9001 systems development**

Production Training Advisory Committee

- **Responsible for overseeing all aspects of the Production Training process**
- **Administer the Knowledge portion of the Pay for Skills system**
- **Insuring the Skills Inventory on each shift and between shifts is the best it can be**
- **Comprised of representatives from each shift**

Peer Promotion Committee

- **Oversee the administration and equity of the Technician promotion process**
- **Responsible for the Peer Review portion of the Pay for Skills system**
- **Guidelines, criteria, and the selection process to be developed and improved by the committee**
- **Representative from each shift from Job Family IV**

New Employee Hiring Committee

- **Responsible for the recommendation of new hires for which they will directly interact**
- **Develop Position Description, Attributes, Skill, Education, and Cultural Requirements**
- **Screen candidates**
- **Conduct interviews**
- **Make recommendation for Hiring Decision**
- **Management makes final Economic / Legal Employment conclusion**

Team Concept Work Culture Results Through People

- **Commitment versus Compliance**
- **Value Based Organization**
- **Teams of people can make better decisions than one person, creates synergy**
- **Decisions made by Teams have better commitment**
- **Takes more time and is MUCH HARDER**
- **Not perfect**
- **We believe it is worth it!**

Team Concept Work Culture Results Through People

- **Meet Matt H.,**
- **His individual success is an example of how the people systems work in a win – win fashion at SPB**
- **Matt exemplifies our core values and has played a large part in Solvay Paperboard's success through the years**

Team Concept Work Culture Results Through People

- **Matt is 31 years old**
- **T8, DET and WET Qualified**
- **Here through both expansions**
- **Has worked up through most of the positions within the operating ranks**
- **Peer promoted based on his team skills, leadership abilities, technical knowledge and personal character – versus seniority based system promotion**

Matt H. Progression

Job Family IV

5/2000

Dry End
Tech

Wet End
Tech

10/2003

T7-9

Job Family III

4/1998

Winder Tech

T5-6

Job Family II

2/1997

Winder Assist.
Tech

Mobile Equip
Outbound

Inbound
Warehouse
Tech.

7/1996

T2-4

Job Family I

11/1995

Team Support
Tech.

T-1 Entry

Team Concept Work Culture Results Through People

- **Has participated in Shoe Press User conferences and equipment selection efforts**
- **Currently heading up a refiner plate optimization effort**
- **Facilitates team meetings**

Thank You for Your Attention

Q&A