2025 SPRAYFOAM Convention & Expo
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SPF Information
Trust but Verify

TOM HARRIS

TOM HARRIS PUR CONSULTING, LLC

Tom Harris
President, Tom Harris PUR Consulting, LLC

Tom is a 44-year veteran of the spray foam industry, is a graduate of Ryerson University's Chemical Engineering program, advanced studies in Business Management, Polymer Chemistry and Building Science. Tom has held various positions from Development Chemist, Technical Manager, Global Marketing Manager, Business Manager and Vice President of Building Science and Innovation in Canada and the United States with some of the biggest names in our industry including BASF, Honeywell, Demilec and Huntsman.

Tom's SPFA efforts include Chairman of the Consultants Committee, member of the Building Envelope Committee, Advocacy Committee, Training Committee and Geotech Committee.

As an independent consultant Tom is here to help you succeed.

tom@letstalkpur.com
763-772-3881

SPFA
SPRAY POLYURETHANE FOAM ALLIANCE

SPFA Antitrust Policy

"Our policy is to comply with all federal, state and local laws, including the antitrust laws. It is expected that all company member representatives involved in SPFA activities and SPFA staff will be sensitive to the unique legal issues involving trade associations and, accordingly, will take all measures necessary to comply with U.S. antitrust laws and similar foreign competition laws."

It is a per se violation of the federal antitrust laws for competitors to agree on prices, limitation of supplies, allocation of customers or territory, or boycotts. "Per se" means that no legal defense can be used to mitigate this automatic violation.

Even an agreement by competitors that is for the good of society and our industry may be a violation of the antitrust laws if it could affect competition.

If a topic of antitrust concern is raised at any time during a meeting, note your objection for the record. If the topic continues to be discussed, you should leave the room immediately and contact SPFA's general counsel and your company's attorney for further guidance.

Ensure that every SPFA meeting, where members are present, has an agenda, the agenda is followed, and minutes are kept by SPFA staff of the proceedings.

Understanding and acting on the requirements of U.S. and foreign antitrust and competition laws sometimes can be difficult. If you have a question about the propriety of activities or discussions in SPFA, you are encouraged immediately to contact your company's legal counsel and SPFA management.

Spanish Translation Disclaimer

This presentation will include subtitles generated automatically based on the speaker's voice using automated translation software.

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Today's Presentation

Learning Objectives

Identify Risk at every level of operation

Identify the primary pieces of information needed

Discuss components of a robust evaluation process

Examples from the field

SPF Information

We ***assume*** that because a product is available for sale, it's been tested and approved for the represented use.

SPF Information

5-hour Energy alleged that its energy drink shots were better than coffee and that doctors recommended it. Those claims were misleading and the makers of 5-Hour Energy were ordered to pay $4.3 million in penalties and fees.

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Data at every level

Raw Material Manufacturing

Resin Manufacturing

Transportation

Storage

Foam Manufacturing

Customer Satisfaction

Data at every level

Raw Material **Resin** **Foam** **Client**

Data at every level

Raw Material	Resin	Foam	Client

QC Checks (ISO ?)

Trend Charts

Retain Sample

Data at every level

Raw Material	Resin	Foam	Client
QC Checks (ISO ?)	Incoming RM QC		
Trend Charts	Weight/Flow		
Retain Sample	ISO Cert?		
	Spray QC (process)		
	Retain Sample		

Data at every level

Raw Material	Resin	Foam	Client
QC Checks (ISO ?)	Incoming RM QC	Approvals	
Trend Charts	Weight/Flow	C of A	
Retain Sample	ISO Cert?	Shelf-Life	
	Spray QC (process)	Daily WR	
	Retain Sample	Equipment	

Data at every level

Raw Material	Resin	Foam	Client
QC Checks (ISO ?)	Incoming RM QC	Approvals	Survey
Trend Charts	Weight/Flow	C of A	Follow up
Retain Sample	ISO Cert?	Shelf-Life	Review
	Spray QC (process)	Daily WR	
	Retain Sample	Equipment	

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	Spray QC (process)	Daily WR	
	Retain Sample	Equipment	

Evaluation Process

Institute an evaluation process for each/every job, and each/every product.

Create a checklist for each material/job and include it in file.

Does my foam (chemical purchase) meet the requirements to be used.

- SDS
- TDS
- US Test methods and US laboratory
- US Material Standard (Insulation Type / Sealant)
- Third Party Evaluation
- Code Compliance
- Labeling (FTC)

Examples

Promotes use as an “insulation” for use between studs, open surfaces etc. (A sealant intended as a bead but can be “sprayed”)

No SDS available

- blowing agent?
- safety (PPE / Exposure)

No US testing (DIN tests)

Data provided not based on US test methods

No third-party evaluation

Not US FTC compliant as an insulation

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Considerations for Material Purchase

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Considerations for Bid Submittal

Does my proposal/intention meet the requirements?

- Enough R to eliminate potential for condensation (prescriptive / performance)
- Is my foam the correct choice (open / closed / hybrid)
- Will I need auxiliary heat (what type / when)
- Isolation and Ventilation strategy (site specific / Re-entry / Re-occupancy)
- Substrate prep (inspected / prep / replace / protection)
- Fire protection requirements
- Safety Items required (site specific)
- Contract Docs / Disclaimers / Warranties

Daily Work Reports

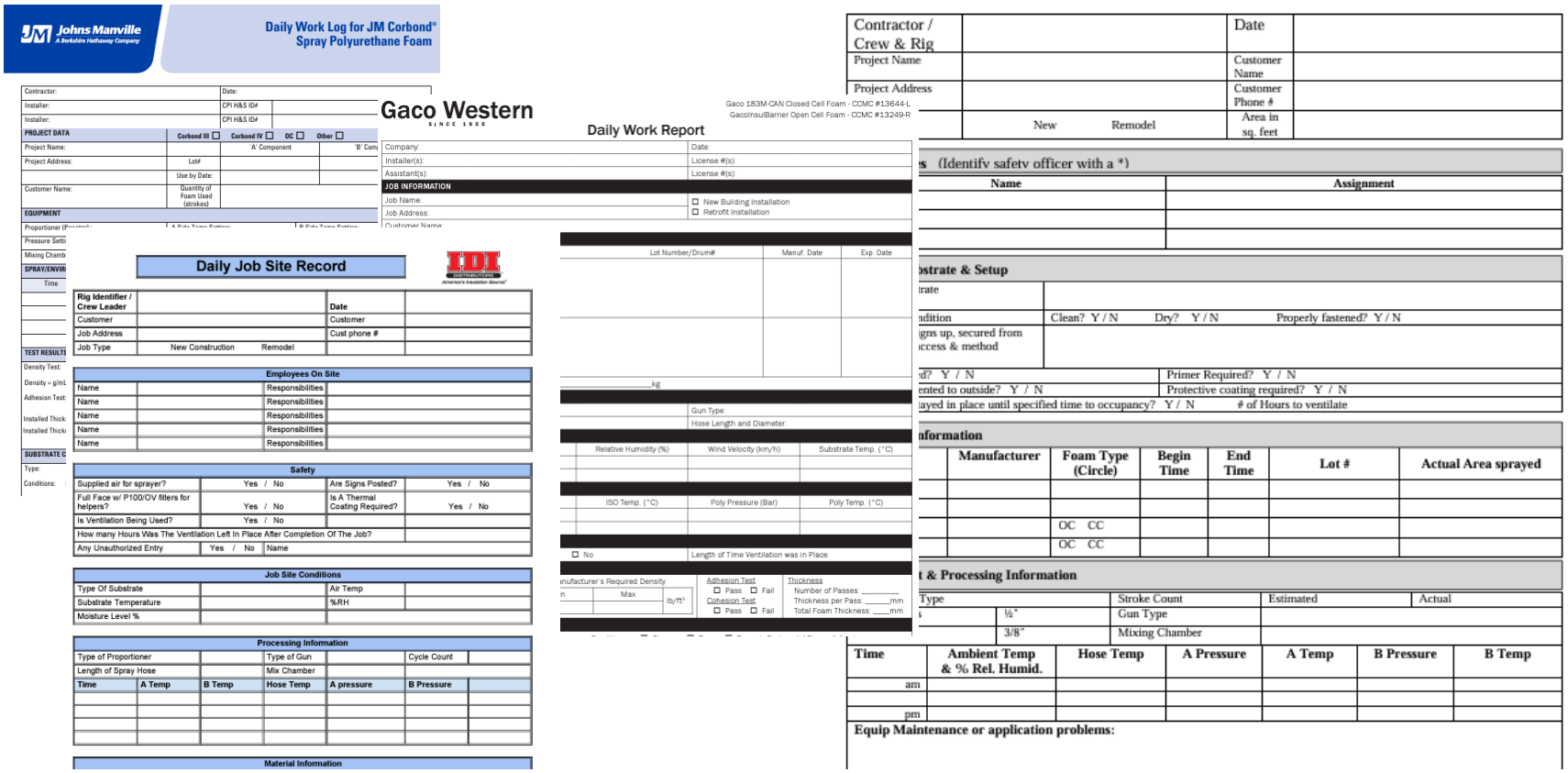
DWR's document key aspects of the work performed on that day.

- Materials and Equipment
- Application specifics (location / system used)
- Individuals on site
- Testing and results (Density / Adhesion / Thickness)
- General notes (problems / observations)

- Take photos of every job (Promotional and Documentation)

Daily Work Reports

DWR's available from many sources



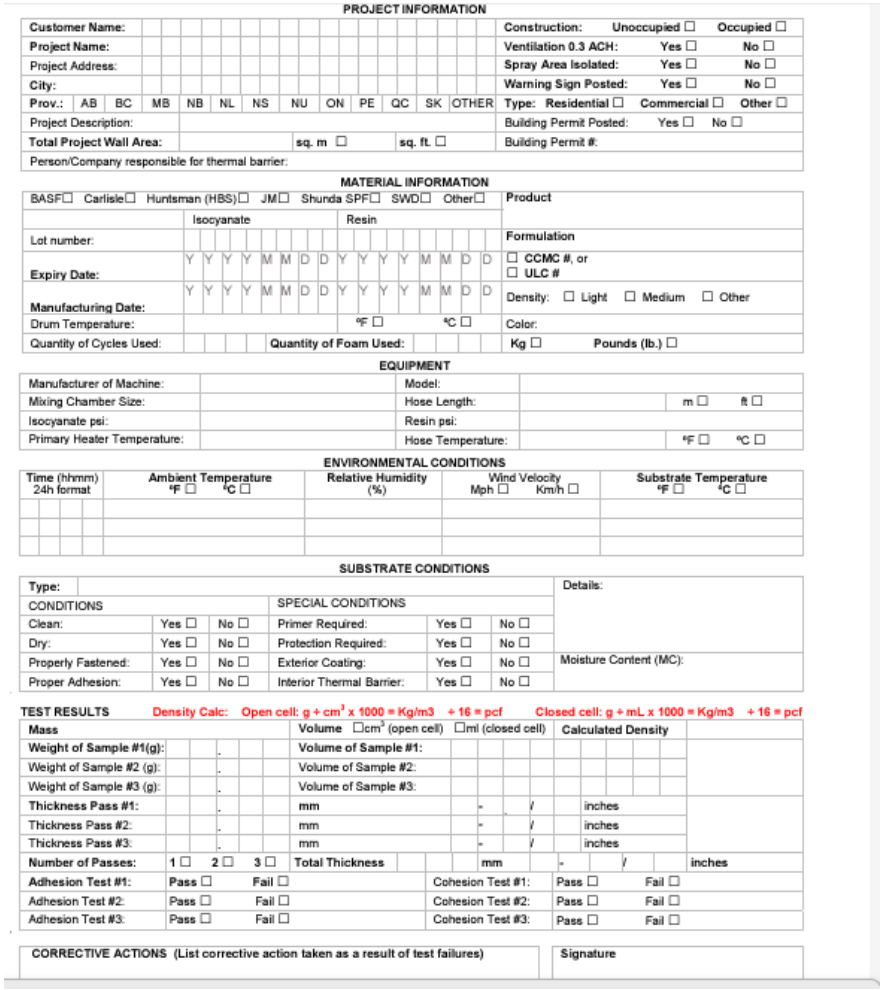
Johns Manville — Daily Work Log for JM Corbond® Spray Polyurethane Foam

Gaco Western — Daily Work Report

Daily Job Site Record

Daily Work Record - Insulation

All jobs in Canada



PROJECT INFORMATION

Customer Name:		Construction:	Unoccupied ☐ Occupied ☐
Project Name:		Ventilation 0.3 ACH:	Yes ☐ No ☐
Project Address:		Spray Area Isolated:	Yes ☐ No ☐
City:		Warning Sign Posted:	Yes ☐ No ☐
Prov.: AB BC MB NB NL NS NU ON PE QC SK OTHER		Type: Residential ☐	Commercial ☐ Other ☐
Project Description:		Building Permit Posted:	Yes ☐ No ☐
Total Project Wall Area: sq. m ☐ sq. ft. ☐		Building Permit #:	
Person/Company responsible for thermal barrier:			

MATERIAL INFORMATION

BASF☐ Carlisle☐ Huntsman (HBS)☐ JM☐ Shunda SPF☐ SWD☐ Other☐		Product	
	Isocyanate / Resin		
Lot number:		Formulation	
Expiry Date:	Y Y Y Y M M D D	☐ CCMC #, or ☐ ULC #	
Manufacturing Date:	Y Y Y Y M M D D	Density: ☐ Light ☐ Medium ☐ Other	
Drum Temperature:	°F ☐ °C ☐	Color:	
Quantity of Cycles Used:	Quantity of Foam Used:	Kg ☐ Pounds (lb.) ☐	

EQUIPMENT

Manufacturer of Machine:		Model:	
Mixing Chamber Size:		Hose Length:	m ☐ ft ☐
Isocyanate psi:		Resin psi:	
Primary Heater Temperature:		Hose Temperature:	°F ☐ °C ☐

ENVIRONMENTAL CONDITIONS

Time (hh:mm) 24h format	Ambient Temperature °F ☐ °C ☐	Relative Humidity (%)	Wind Velocity Mph ☐ Km/h ☐	Substrate Temperature °F ☐ °C ☐

SUBSTRATE CONDITIONS

Type:					Details:
CONDITIONS			SPECIAL CONDITIONS		
Clean:	Yes ☐	No ☐	Primer Required:	Yes ☐ No ☐	
Dry:	Yes ☐	No ☐	Protection Required:	Yes ☐ No ☐	
Properly Fastened:	Yes ☐	No ☐	Exterior Coating:	Yes ☐ No ☐	Moisture Content (MC):
Proper Adhesion:	Yes ☐	No ☐	Interior Thermal Barrier:	Yes ☐ No ☐	

TEST RESULTS Density Calc: Open cell: g ÷ cm^3 x 1000 = Kg/m3 ÷ 16 = pcf Closed cell: g ÷ mL x 1000 = Kg/m3 ÷ 16 = pcf

Mass		Volume ☐cm^3 (open cell) ☐ml (closed cell)		Calculated Density
Weight of Sample #1(g):		Volume of Sample #1:		
Weight of Sample #2 (g):		Volume of Sample #2:		
Weight of Sample #3 (g):		Volume of Sample #3:		
Thickness Pass #1:		mm	- /	inches
Thickness Pass #2:		mm	- /	inches
Thickness Pass #3:		mm	- /	inches
Number of Passes:	1 ☐ 2 ☐ 3 ☐	Total Thickness	mm - /	inches
Adhesion Test #1:	Pass ☐ Fail ☐	Cohesion Test #1:	Pass ☐ Fail ☐	
Adhesion Test #2:	Pass ☐ Fail ☐	Cohesion Test #2:	Pass ☐ Fail ☐	
Adhesion Test #3:	Pass ☐ Fail ☐	Cohesion Test #3:	Pass ☐ Fail ☐	

CORRECTIVE ACTIONS (List corrective action taken as a result of test failures)	Signature

Project Information

Material Information

Equipment Info

Environment

Substrate

Testing

- Adhesion
- Cohesion
- Density
- Thickness

Signature

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Information is Power

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Equipment Data

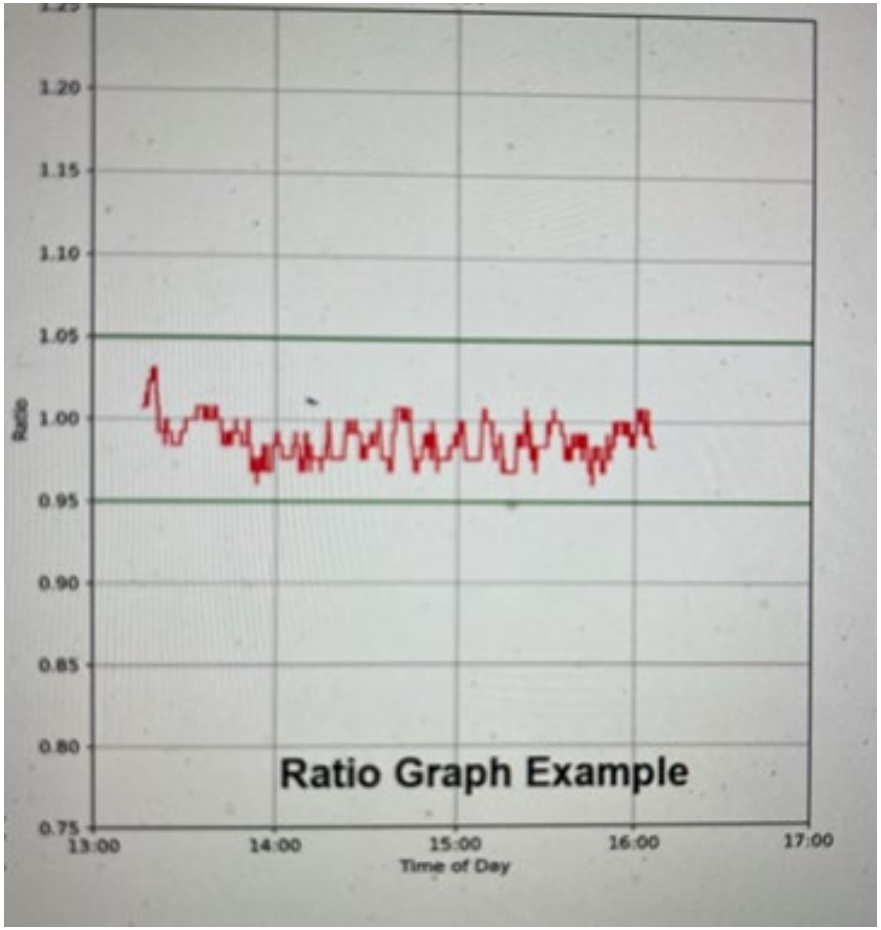
Biggest shift in our industry over the past 5 years is related to ratio monitoring and control.

Trending towards “output monitoring and report” capability

Ratio Monitoring	Fixed Ratio Pressure imbalance leading to poorly mixed foam
Ratio Adjustments	Mass Flow Meter / Pump RPM

Comes down to Installed Foam Quality

Equipment Data



Leading manufacturers offer ratio **monitoring** and **reporting**.

Some proportioners provide ratio **monitoring** and **continuous ratio control** capability.

Why???

Make More Money	Increase Bid Closure Rate	Accuracy
	PM Schedule	Predict

With more information, the ability to predict (reduce) downtime coupled with accurate historical data results in more accurate bids.

Reduce Liability	Hold onto Money	Evidence

With more information, the liability is shifting towards the contractor/installer.

Summary

Data and Information is / can be generated at the point of manufacture of raw materials, blended resin systems and field installed insulation foam.

Product users/purchasers **must** verify the appropriate information is provided by the manufacturer or brand owner.

Processing and manufacturing trends include more accurate material metering including field installation ratio monitoring and control.

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With Access comes Accountability and Liability