

Lessons Learned in Managing and Preventing Foreign Material Incidents

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FROM DETECTION TO DECISION: PART 2

Lessons Learned:
Managing & Preventing
Foreign Material Incidents



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WEBINAR PANELISTS



Maryam Blythe
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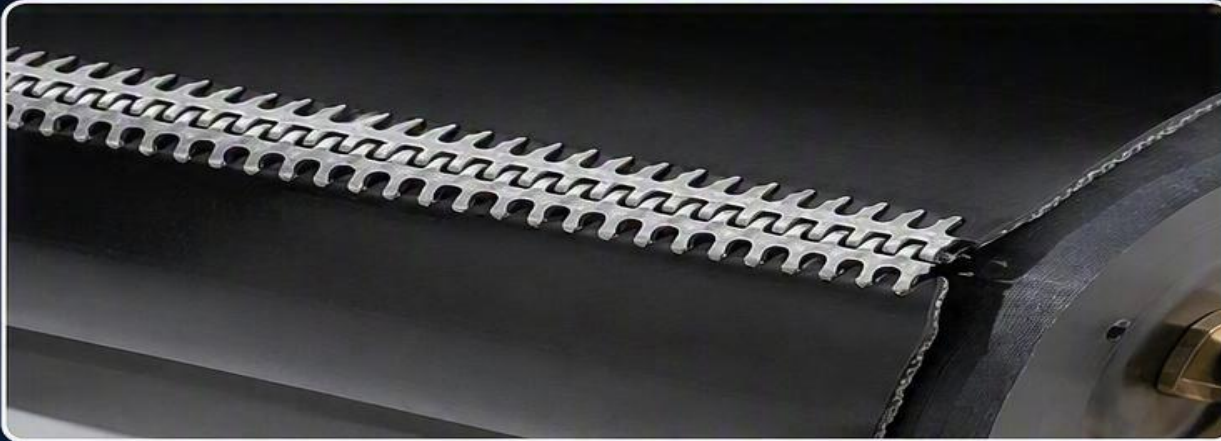


Craig Lorei
Eriez
Manufacturing



Paula Schwarz
Flex Xray

CHALLENGING ASSUMPTIONS: ARE YOUR CONTROLS REALLY EFFECTIVE?



FAILURE:

Foreign Material Hazard Designed Into Equipment



ASSUMPTION:

PMs & Pre-Ops = Controlled Risk



REALITY:

Metal connector became the foreign material source



SOLUTION:

Design Out the Hazard
Welded belt design



FAILURE:

Understanding What “Metal Detectable Plastic” Truly Means



ASSUMPTION:

Metal Detectable = Will Always Be Detected



REALITY:

Detection depends on:

- Fragment size
- Additive concentration
- Orientation
- Detector capability



SOLUTION:

Validate Detectability
Test realistic fragments in actual product conditions



COMMON LESSON: MONITORING COSTS MORE THAN A FIT-FOR-PURPOSE DESIGN

WHEN PEOPLE KNOW, **BUT ACTION DOESN'T FOLLOW**



INTACT TEST PIECE



TEST PIECE FOUND DAMAGED



INFORMATION KNOWN
WITHIN OPERATION



CONCERN NOT ESCALATED
QUICKLY ENOUGH



PRODUCT PROTECTION
ACTIONS DELAYED



**POTENTIAL FOREIGN
MATERIAL RISK
TO CONSUMERS**



DAMAGED / FRAGMENTED TEST PIECE

WHAT WE FIRST THOUGHT



DETECTION FAILURE

- Equipment limitations
- Small fragments
- Challenging detection conditions

WHAT WE LEARNED



ESCALATION & DECISION-MAKING FAILURE

- Information existed
- Concern wasn't escalated
- Response expectations unclear
- Investigation started too late



**TECHNOLOGY IDENTIFIES HAZARDS.
CULTURE DETERMINES WHETHER PEOPLE TAKE ACTION.**



AUDIENCE POLL

**Which presents the greater
risk in your facility?**

- ☐ Detection capability limitations
- ☐ Failure to report issues
- ☐ Delayed escalation
- ☐ Unclear response expectations

**SCAN QR CODE
TO VOTE**

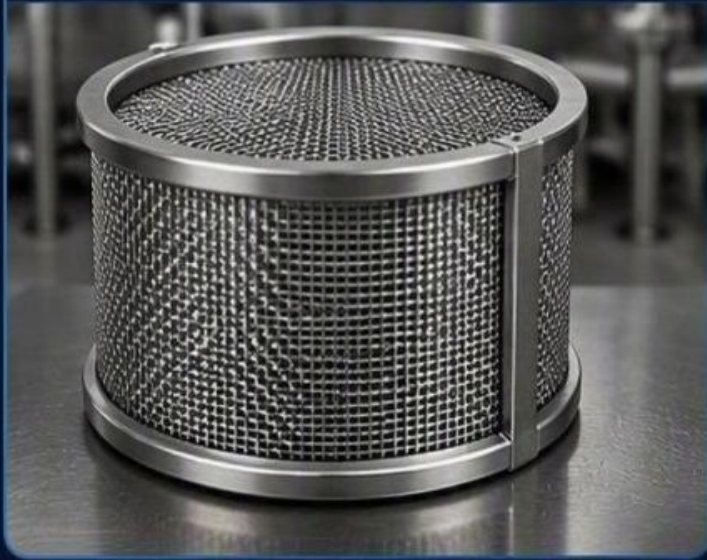


WHEN THE HAZARD OCCURS **AFTER THE CONTROL**



WHAT WE ASSUMED

- Screens & Filters Controlled Risk
- Hazard Assessment Complete
- No Additional Detection Needed



RAW PRODUCT



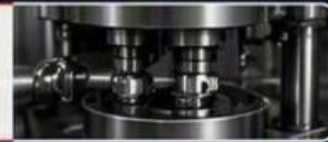
MESH FILTER
(CONTROL POINT)



FILLING & CAPPING



SET SCREW RELEASED
AFTER CONTROL POINT



SEALED BOTTLE
CONTAINING SET SCREW



CONSUMER RISK



WHAT ACTUALLY HAPPENED

- Contamination Introduced After Controls
- Set Screw Released During Capping
- Entered Sealed Bottle
- Existing Controls Could Not Prevent It



EQUIPMENT
AGING



MAINTENANCE
TRENDS



EQUIPMENT
MODIFICATIONS



NEW FAILURE
MODES

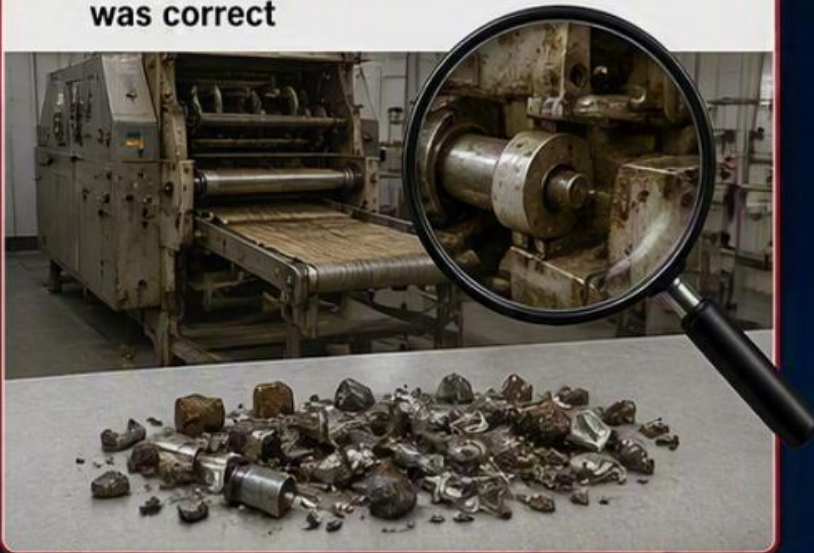


THE LAST POINT OF CONTAMINATION AND THE LAST POINT OF DETECTION ARE NOT ALWAYS THE SAME.

EFFECTIVE ROOT CAUSE ANALYSIS REQUIRES EVIDENCE, NOT ASSUMPTIONS

WHAT WE ASSUMED

- Aging equipment was the source
- Wear and tear caused contamination
- Most obvious explanation was correct



METAL FRAGMENTS FOUND
at End-of-Line Detector



INITIAL ASSUMPTION
Aging Bakery Equipment =
Source of Contamination



INVESTIGATION CONTINUES
Evidence Didn't Support
Initial Theory



ACTUAL ROOT CAUSE
Missing Screwdriver
Caught in Equipment



**METAL & PLASTIC
FRAGMENTS GENERATED**
Through Repeated Crushing



SYSTEM IMPROVEMENTS
Implemented

WHAT WE LEARNED

- Missing screwdriver trapped in equipment
- No formal tool accountability process
- Root cause was a system failure, not equipment wear



SYSTEM IMPROVEMENTS



Locked
Toolboxes



Shadow
Boards



Numbered
Tools



Immediate Missing
Tool Escalation

 **STRONG SYSTEMS REMOVE UNCERTAINTY. STRONG SYSTEMS DON'T RELY ON MEMORY.**

 **EFFECTIVE ROOT CAUSE ANALYSIS REQUIRES EVIDENCE, NOT ASSUMPTIONS.**

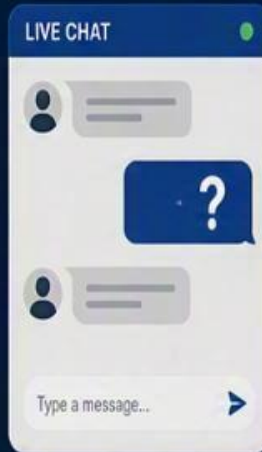
FINAL REFLECTIONS & AUDIENCE Q&A



QUESTIONS FROM THE AUDIENCE

 Submit your questions in the chat

- Prevention
- Detection
- Investigations
- Response & Escalation
- Lessons Learned



FINAL QUESTION FOR PANEL & AUDIENCE



"If there was one lesson from today's discussion that you wish every food manufacturer would take back to their facility tomorrow, what would it be?"



Panelists respond



Audience shares thoughts in chat

TODAY'S KEY THEMES



1. DESIGN OUT HAZARDS

The strongest control is often eliminating the hazard at the source.



2. CHALLENGE ASSUMPTIONS

Controls should be validated, challenged, and periodically reassessed.



3. BUILD A SPEAK-UP CULTURE

People ultimately determine how risks are identified, escalated, and managed.



Foreign material incidents rarely result from a single failure.

Strong programs are built on design, systems, leadership, culture, and continuous improvement.



PROTECT PEOPLE



CHALLENGE ASSUMPTIONS



CONTINUOUSLY IMPROVE

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