Basic Training in Foreign Object Damage Prevention

- Safeguarding Your Manufacturing Environment
- Safeguarding Your Company’s Reputation

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Key Terms

- FO (Foreign Objects)
- FOD (Foreign Object Damage or Foreign Object Debris)
- FOD Program
- FOD Inspection
- FOD Sensitive Areas
- Clean-As-You-Go
- Consumables
- Small Parts
- Tool Accountability
- 6S
- FOD Point Of Contact

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FOD Is Serious!

• Foreign Object Damage Costs!
• The cost can be measured in:
  – Delays
  – Returns
  – Reputation
  – Military Readiness
  – Jobs
  – Lives

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Potential FOD Threats

• Almost anything can be a FOD threat
  – Pens, Coins, Wire Scraps, Cups, Staples, Paperclips, Tape, Nuts, Bolts.
  – Grease, Paint, Cleaning Solvents, Lubricant Oils, Tacky Residue (from masking tape, etc.)
  – Birds, Rodents, Snakes, Insects (and that old Pizza Crust too!)
How Do I Prevent FOD?

- Practice Good Housekeeping.
- Clean As You Go!
- Know the FOD Sensitive Areas in your facility.
- Tool Accountability.
- Hardware Accountability.
- Report Missing, Lost, and Found Items.
- Always be prepared for FOD Inspections.
- Know your FOD Point Of Contact.

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Housekeeping

• The largest contributor to FOD is uncleanliness.
• Use the 6S concept to organize your work area
  — Sort
  — Straighten
  — Shine
  — Standardize
  — Safety
  — Sustain
Clean As You Go!

• Keep your house in order!
• Ensure that all space and surfaces in close proximity to the product during every phase of manufacturing, testing, transportation, and storage are free from foreign objects.
• Cleaning as you go ensures that immediate risks to the product are removed ASAP.

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FOD Control Areas

- Areas within the facility are organized according to their sensitivity to FOD damage.
- FOD Awareness Areas are at a relatively low risk level for FOD incidents. Be aware!
- FOD Control Areas are at a medium risk for FOD incidents. Be cautious!
- FOD Critical Areas are at a high risk level for FOD incidents. Be vigilant!
Tool Accountability

• Tool control and effective FOD prevention are critically linked.
• You must control your tools, parts, and equipment.
• Available Methods
  – Shadow Boxes
  – Tethers
  – Chit Systems
  - Tool Inventory Sheets
  - Tool Kits
  - Sponge Count Sheets

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Hardware Accountability

- Small parts and loose hardware pose a major FOD risk in manufacturing environments.
- This includes new hardware used during assembly and older hardware replaced during maintenance activities.
- Kitting is the process of preparing the exact amount of hardware necessary for a particular task (no more and no less).
Report Missing, Lost, and Found Items.

• This is a critical component to our FOD Prevention Program.
• All employees MUST report lost or unaccounted for hardware and tools.
• This is not about punishing a mistake, it is about preventing potential damage BEFORE something happens.
FOD Audits

- FOD Audits and Inspections can happen at anytime.
- Findings are used to identify problems and to help develop lasting solutions.
- Always be prepared for company – it could be a customer, the tool representative, or an auditor.
- Keep your house in order.
Your FOD Point Of Contact

• All FOD incidents must be brought to the attention of your FOD Point Of Contact for investigation, cause and corrective action.
• All Foreign Object Damage should be reported immediately and investigated as soon as possible.
• We can only improve that which we track.