Clean As You Go and Best Practices for Foreign Object Debris (FOD) Prevention in the Workplace

Sofema Aviation Services (SAS) www.sassofia.com takes a deep dive into understanding the prevention of Foreign Object Debris (FOD)

Introduction

Effective implementation of the "Clean As You Go" practice for FOD prevention necessitates a structured approach encompassing Sorting, Standardizing, Simplifying, Sweeping, and Self-Discipline.

Despite potential challenges, the key to successful deployment lies in fostering a culture of cleanliness and discipline, coupled with proactive communication, training, and leadership commitment.

This ensures not only a cleaner, safer workplace but also a more efficient and productive one.

Leadership commitment is crucial for the success of any safety and FOD prevention program. Ensure that management actively participates in safety initiatives, sets an example by following safety protocols, and provides the necessary resources to support these efforts.

Clean As You Go

Clean As You Go practice for FOD prevention encompasses several essential elements: Sorting, Standardizing, Simplifying, Sweeping, and Self-Discipline.

- To successfully implement these practices, organizations should involve employees in the process, communicate effectively, provide regular training, and foster a culture of cleanliness and discipline. By doing so, workplaces can not only achieve a cleaner and safer environment but also improve efficiency and productivity.

Foreign Object Debris (FOD) is a significant issue in many workplaces, particularly in manufacturing and production environments. FOD can cause machinery malfunction, compromise product integrity, and even pose safety hazards to personnel.

To combat FOD, organizations have turned to the best practice of "Clean As You Go," underpinned by the Six S's of Housekeeping.

Housekeeping 5S's

The Six S's of Housekeeping

- Sorting

- Standardizing,
- Simplifying,
- Sweeping, and
- Self-Discipline
- Safety

Serve as a foundation for effective deployment of the Clean as You GO Strategy.

Six S's of Housekeeping and FOD Prevention

Sorting

- Sorting involves systematically reviewing the work area and removing unnecessary items.
- It requires thorough documentation, agreement among staff, and buy-in from management.
- A significant challenge here can be resistance from employees due to changes in their work environment, which can be addressed through open communication and involvement of staff in the sorting process.

Steps to Deliver the Objective of Sorting

- Eliminating every unnecessary obstacle in the workplace
- Removing or reducing anything that could disturb the workflow
- Removing all items that aren't in use
- Implementing measures to prevent the accumulation of clutter
- Separating waste from value, with the following questions:
    o What is the purpose of this machinery, tool, or other equipment?
    o Who are the employees that use it?
    o How frequently do they use it?
    o What was the last time it was used?

The Goal of Effective Sorting

- Increase the amount of useful space
- Keep Workbenches, floors, and other surfaces clean
- Improve the safety of your workspace
- Reduce time lost looking for items
- Encourage regular cleaning and recycling of items

Standardizing

Standardization aims to maintain uniformity in work area upkeep. It includes the designation of specific areas for tools and equipment, establishment of accountability rules, and the incorporation of these rules into training programs and audits. The challenges with standardization often lie in ensuring consistency across different shifts and diverse workforce, which can be mitigated through clear communication and regular monitoring.

Steps to Deliver the Objective of Standardizing

- Do not have anything that doesn't belong in the workplace.
- Arrange all the items in such a way that they are easily found and can be easily used
- Ensure that all tools are as close as possible to the workspace.
- Maintain maximum safety in the workplace, with the goal of making the workflow as smooth as possible and protecting people while doing so. Some companies add a sixth S to the 5S methodology for "safety".
- To assign fixed locations for machinery and items (and group them accordingly)
- To use labels, visual signs, checklists etc. so that items are easily found and returned in place

Simplifying

Simplifying involves clear and understandable directions, procedures, and rules. It's crucial to maintain simplicity in instructions to ensure broad comprehension and adherence.

- Challenges to simplicity may include the complexity of tasks and employee resistance to changes.
- These can be mitigated by involving employees in procedure development and maintaining open channels for feedback and improvement suggestions.

Sweeping

Sweeping refers to the establishment and enforcement of cleanliness routines. It involves enforcing the "Clean-As-You-Go" rule, defining end-of-shift cleaning responsibilities, and creating cleanliness checklists for each work area. The primary challenge with sweeping is ensuring compliance, which can be addressed through proper training, regular audits, and rewards for consistent adherence.

- "Sweeping" involves establishing and enforcing cleanliness routines to prevent Foreign Object Debris (FOD) in the workplace.
- It emphasizes the importance of immediate and continuous cleaning to avoid the accumulation of debris, which could lead to potential hazards or disruptions.

Key Aspects of Sweeping:

Clean-As-You-Go Rule: The Clean-As-You-Go rule requires employees to clean up after themselves during their work shifts. This means ensuring that any debris or waste generated during the course of their tasks is promptly and properly disposed of.

- End-of-Shift Cleaning Responsibilities: Employees are assigned specific cleaning responsibilities at the end of their shifts. This ensures that the work area is left clean and organized for the next shift.
- Cleanliness Checklists: Employers may develop checklists that detail the cleaning tasks to be performed regularly in each work area. These checklists serve as reminders for employees and help maintain consistency in cleaning practices.

Challenges in Sweeping:

The primary challenge in sweeping is ensuring compliance with the established cleaning routines. Some employees may overlook or neglect their cleaning responsibilities, leading to the potential buildup of debris over time.

- To address compliance challenges, comprehensive training on the importance of sweeping and FOD prevention is essential.
- Employees should understand the negative consequences of FOD and the impact of their cleaning efforts on overall workplace safety and efficiency.

Note Regular audits and inspections can help monitor adherence to cleanliness routines.

- Employers can provide feedback to employees based on audit results, recognizing and rewarding those who consistently follow the cleaning procedures.
- This positive reinforcement encourages others to take their sweeping responsibilities seriously.

Self-Discipline

Self-Discipline, emphasizes individual responsibilities in maintaining a clean and FOD-free workplace.

It includes:

- Tool accountability,
  - Employees are expected to be accountable for the tools and equipment they use. This includes ensuring that all tools are returned to their designated locations after use and reporting any missing items promptly
- Reporting missing items, and

- Ensuring the workspace is free of personal items.
  - Personal items should not be left in work areas. Keeping the workspace free of personal belongings helps reduce the risk of FOD and maintains a professional and organized environment.
- The main challenge here is fostering a culture of accountability and discipline among employees, which can be cultivated through leadership example, regular reminders, and recognition for good practices.

Challenges in Self-Discipline:

- Fostering a culture of self-discipline can be challenging, as it requires a collective effort from all employees to adhere to the established guidelines consistently.
- Leadership plays a crucial role in promoting self-discipline among employees. Leading by example and adhering to the rules themselves sends a powerful message and sets the standard for others to follow.
- Regular reminders and communication from management about the importance of self-discipline can help reinforce the message.
- Recognizing and rewarding employees who consistently demonstrate self-discipline further reinforces the desired behavior.
  - This recognition can be in the form of verbal praise, certificates, or other incentives that encourage continued adherence to FOD prevention practices.

Safety

Focuses on identifying hazards and setting preventive controls to keep workers safe during work operations and ensure that the work environment meets required safety standards.

Safety is the topmost priority in every workplace. Having a safe and clean working environment helps:

- Create a positive impact on productivity and quality.
- Encourage a stress-free and healthy atmosphere where workers can feel safe and secure; and
- Makes it easy to recognize potential hazards and install safety controls.

Additional Guidance on Safety, Identifying Challenges, and Mitigating Risks in Clean As You Go and FOD Prevention:

- Implement comprehensive safety training programs that cover both FOD prevention and general workplace safety. Ensure that all employees, including new hires and contractors, receive proper training.

- Training should include information on potential hazards, safe work practices, emergency procedures, and the importance of FOD prevention. Regular safety meetings and toolbox talks can reinforce these concepts and keep safety top of mind for all employees.
- Conduct regular hazard identification and risk assessment in the workplace. Involve employees in this process as they have firsthand knowledge of potential FOD sources and safety risks. Identifying potential hazards and risks allows for proactive mitigation strategies.
- Establish a clear and easy-to-follow process for reporting incidents related to FOD and safety hazards. Encourage employees to report any near misses, incidents, or unsafe conditions they encounter. Investigate all reported incidents thoroughly to determine root causes and implement corrective actions to prevent recurrence.
- Regularly conduct housekeeping inspections to ensure compliance with the "Clean As You Go" strategy and FOD prevention practices.
  - Use checklists to assess work areas, tools, and equipment for cleanliness and proper organization. Address any deficiencies promptly and provide feedback to employees.
- Identify the appropriate personal protective equipment required for different tasks and ensure that employees are trained in its correct usage. Make sure that PPE is readily available and regularly inspected for wear and tear.
- Involve employees in the development and improvement of FOD prevention measures and safety protocols. Recognize and reward employees who actively participate in safety initiatives and consistently adhere to the "Clean As You Go" practices.
- Promote a culture of continuous improvement by encouraging employees to suggest safety enhancements and FOD prevention ideas.
  - Regularly review and update FOD prevention procedures and safety protocols based on lessons learned and best practices.
- Establish FOD safety committees comprising representatives from different departments.
  - These committees can work together to address safety concerns, conduct safety audits, and share best practices.
- Maintain open lines of communication with employees regarding safety and FOD prevention. Encourage employees to provide feedback, share their experiences, and voice concerns.
  - Address their feedback and communicate the actions taken to enhance safety in the workplace.

Next Steps

Please see www.sassofia.com or www.sofemaonline.com training in FOD related to Engine Workshops and Component Overhaul is available please see the following Aviation Production & Overhaul – Foreign Object Damage Awareness Training (FOD) Initial – 1 Day for comments or questions please email team@sassofia.com