

Pollution Prevention



Toyota Industrial Equipment Mfg., Inc.

December 7, 2011

Pollution Prevention

- **IDEM Gov Awards: The Definition of Pollution Prevention**
- **Pollution Prevention Includes:**
- Any practice that (these practices are known as "source reduction"):
 - Reduces the amount of any hazardous substance, pollutant or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, or disposal, and
 - Reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants.
- Other practices that reduce or eliminate the creation of pollutants through:
 - Increased efficiency in the use of raw materials, energy, water, or other resources, or
 - Protection of natural resources by conservation.

Pollution Prevention

- Equipment or technology modifications; process or procedure modifications; product reformulation or redesign; substitution of raw materials; or improvements in housekeeping, maintenance, training or inventory control.
- To consider in-process recycling a pollution prevention activity, it must serve a productive function with the making of the commercial product for which the original process was designed and must be an integral part of that process (i.e., the production process cannot function without the recycling process).

Pollution Prevention

- **Pollution Prevention Does Not Include:**
- Energy recovery;
- treatment of a waste stream;
- disposal;
- recycling;
- any practice that alters a hazardous substance, pollutant or contaminant once it is generated;
- a practice that is not necessary for production;
- or practices that create new risks to human health or the environment.

Toyota Industrial Equipment Mfg., Inc

Pollution Prevention Project

Logistics

047.EMP Investigate Returnable Containers and Reduce Vendor Packaging Progress on Objectives & Targets

TOYOTA INDUSTRIAL EQUIPMENT MFG., INC.	ISO 14001 Management Review Investigate Returnable Containers and Reduce	DATE ISSUED 4/1/2011	PAGE NUMBER 1 of 1
		DATE REVISED	PROCEDURE 047.EMP
SECTION: Planning	SUB-SECTION: 4.3.4 Environmental Management Programs		Revision # 0
1.0 PURPOSE OF PROGRAM			
Investigate reducing the amount of shipping and packing materials received at TIEM from suppliers and vendors.			
2.0 SUMMARY OF PROGRAM DESCRIPTION			
Investigate ways of reducing the amount of shipping and packaging materials received from vendor and suppliers.			
Means to achieving: <ul style="list-style-type: none"> * Contact all vendors and suppliers and request a review of current packaging needs and practices. * Request that vendors and suppliers investigate ways to minimize excess packing and shipping materials while maintaining product quality and safety. * Investigate feasibility of returnable shipping containers, * Determining actual container size required for product being shipped to reduce the amount of overpack materials needed. * Consider packing multiple products in a single overpack container. 			
Group Responsible: Purchasing Time frame to achieve: FYE2012			
3.0 MILESTONES AND COMPLETION DATE			
<ol style="list-style-type: none"> 1. Send request to suppliers and vendors by 6-1-2011. 2. Receive information from vendors on feasibility and amount of reduction by 9-1-2011. 3. Calculate material reduction by 12-1 2011. 4. Review actual reductions and savings by 3-31-2012. 			
4.0 PROGRAM REVIEW AND MONITORING METHOD			
Monitoring: Vendors to report reduction amounts.			
Frequency: Monthly			
Program Review: Quarterly review by Management review committee.			
Action Plan: Contain the following elements: department objective, challenge, planned activity, target, schedule, PICA, evaluation results.			
In Budget <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			

Investigate Returnable Containers and Reduce Vendor Packaging

1.0 PURPOSE OF PROGRAM

- Investigate reducing the amount of shipping and packing materials received at TIEM from suppliers and vendors.

2.0 SUMMARY OF PROGRAM DESCRIPTION

- Investigate ways of reducing the amount of shipping and packaging materials received from vendor and suppliers.
- Means to achieving:
 1. Contact all vendors and suppliers and request a review of current packaging needs and practices.
 2. Request that vendors and suppliers investigate ways to minimize excess packing and shipping materials while maintaining product quality and safety.

- Investigate feasibility of returnable shipping containers,
- Determining actual container size required for product being shipped to reduce the amount of overpack materials needed.
- Consider packing multiple products in a single overpack container.
- Group Responsible: Purchasing
- Time frame to achieve: FYE2012

047.EMP FYE2012 Investigate Returnable Containers and Reduce Vendor Packaging

Original: 8/31/11

Updated: 8/31/11

Action Plan				Schedule													Evaluation	
WHAT	HOW	WHO	WHEN	4/11	5/11	6/11	7/11	8/11	9/11	10/11	11/11	12/11	1/12	2/12	3/12	E	COMMENT	
A.																		
1. Contact Vendors and suppliers and request review of current packaging needs and practices	Email Returnable Container Investigation Worksheet	Log	1-Jun			★												
B. Activity Plan:																		
1. Identify parts w ith non-returnable cardboard packaging	Breakdown n box types from AS400 box master. Scan Procurement master for matching items.	Log	01-Jun-11			★												
2. Photograph each part and fill in Returnable Container Investigation Worksheet	Genchi at Line side with a camera	Log	01-Jun-11			★												
3. Email Returnable Container Investigation Worksheet to Vendors	Outlook	Log	01-Jun-11			★												
C. Results Confirmation Survey:																		
1. 0 of 17 parts are able to be changed		Vendors	01-Jun-11			★												
D. Decide Next Step for Continuous Improvement:																		
1. Identify parts w ith non-returnable packaging other than cardboard	Repeat previous process, email vendor, study feasibility	Log	01-Sep-11						★									

007.EMP FYE2012 REDUCE INCOMING PACKAGING & PACKING WASTE

Original: 6/4/11

Updated: 9/8/11

WHAT	HOW	WHO	WHEN	Schedule												Evaluation		
				4/11	5/11	6/11	7/11	8/11	9/11	10/11	11/11	12/11	1/12	2/12	3/12	E	COMMENT	
A. Baseline Air Sample Survey:																		
1. Reduce waste associated with incoming packaging	Look at packaging and packing materials per vendor	Purch toolcrib	Jun.11															
B. Activity Plan:																		
1. Implement those vendors who can utilize tool crib returnable totes	Offer totes to those vendors who hand deliver vs. UPS or other shipping	PU	Mar.31.12															
2. Reduce packaging material waste (internal packing)	request all vendors use only environmentally friendly packing. ie - bubble wrap or paper - do away with styrofoam	PU	Jul. 11															
C. Results Confirmation Survey:																		
1. Monitor those vendors that comply	Collect data on vendors	PU	Quarterly															
D. Decide Next Step for Continuous Improvement:																		
		PU	Mar.31.12															

047.EMP FYE2012 Investigate Returnable Containers and Reduce Vendor Packaging

Vendors on Returnable Totes

Alcorn
JMC
PTS
IRS

Vendors working on implementing

Quality Mill
Finishline
B&H Electric
General Rubber

Vendors working on reduction of packing material:

JMC
PTS
MQ Automation
Quality Mill
Safetywear

Involving Vendors and Suppliers

TIEM implemented an environmental management program that all vendors and suppliers for TIEM must be either ISO 14001 certified or have an equivalent EMS approved by a third party to be a supplier at TIEM.

026.EMP

1.0 PURPOSE OF PROGRAM

To coordinate relevant suppliers to the ISO 14001 standard.

2.0 SUMMARY OF PROGRAM DESCRIPTION

Suppliers to gain ISO 14001 certification by March 2008.

Means to achieving:

Provide initial training, documentation and support.

Group responsible: Purchasing

Time frame to achieve: March, 2008

3.0 MILESTONES AND COMPLETION DATE

1. Review current vendor status Quarterly.
2. Obtain Implementation targets from the Top 65 suppliers by June 06.
3. Obtain implementation targets from suppliers, not in the Top 65 list, by July 06.

TIEM is a member of

