



Shingo Prize Public Sector 2008



Achievement Report

Patriot Missile Launching Station

Letterkenny Army Depot
Building 10, One Overcash Avenue
Chambersburg, PA 17201-4150

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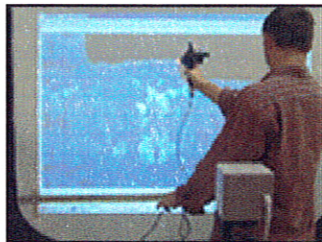
Section 1 – Cultural Enablers (continued)

STAR4D Painter Training

The Spray Technique Analysis and Research for Defense (STAR4D®) training program meets the needs of military spray technicians and training instructors. The STAR4D painter training process is "hands-on" training where LEAD painters are able to use new technologies while applying coatings that they use here at the depot. The primary purpose of the STAR4D program is to identify the concerns of the military refinishing industry and practice strategies and techniques that will enable them to use less material and improve finish quality. The program typically covers everything from the chemistry of how and why different types of paint work in different conditions, to proper mixing application of coatings and materials, as well as operation and maintenance of equipment.

The Iowa Waste Reduction Center (IWRC) is the only facility outside of the military to provide such training to Army Civilians, and the STAR4D program is customized to meet the needs of each individual training class and organization. A certificate of completion is awarded to successful STAR4D trainees at the conclusion of the three day course. To date, 23 LEAD Paint Division personnel have graduated from this course.

Base upon LEAD's commitment to training its painters and reducing waste, STAR4D is considering provided the depot with the latest version of their painting simulator that is used at their facility. LEAD is being considered as a satellite training facility for the STAR4D program.



Success Story - Employee Feedback for STAR4D Training:

“The STAR4D schooling is an excellent experience. I appreciate the opportunity to expand my knowledge and skill base with true professionals in my line of work. The instructors worked right along with us and made us feel like a part of their shop. The classroom instruction was excellent. The virtual reality painting is very helpful in discovering our individual painting technique and what we need to change or improve to produce a better end product. I would recommend this training for all painters.” – Barbara K. Whitsel

“This course was wonderful - it is packed with good information. I personally learned a lot that we can use on a daily basis. I think every painter on depot should attend” – Ken Fahrney

Section 1 – Cultural Enablers (continued)

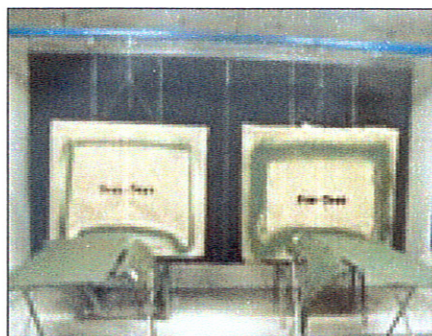
Hazardous Material Storage

LEAD held a Lean event in the Hazardous Material (HAZMAT) Storage Area in building 37. Originally, HAZMAT collection was accomplished at random stations throughout the building, making collection and control laborious. As part of this event an area was cleaned and organized, and all hazardous material was inventoried, properly labeled, and stored according to the type of material. All Material Safety Data Sheets (MSDS) binders and inventory records were updated. This area now serves as the building collection point and it is pumped outside for easy convenient pick up and control.

In an initial three day course, LEAD employees are trained to handle and dispose of HAZMAT from the various areas of the depot. A refresher is offered semi-annually for all the employees that took the initial training. This ensures that the employee is reminded of the correct processes and procedures, and that the proper information is communicated to the shop floor in order to handle the HAZMAT correctly.

Letterkenny Painters “Think Green”

Proper painting techniques in conjunction with improved material transfer efficiency work to reduce the amount of waste in the form of paint solids and air emissions. This means that the depot purchases less paint, uses less paint, and disposes of less paint and solvent related waste. Letterkenny’s Paint Division is participating in the University of Northern Iowa’s STAR4D Program, which teaches environmental strategy and specializes in the use of water dispersible coatings, which generate far fewer volatile organic compounds and hazardous air pollutants into the environment. LEAD is looking toward the future and is actively seeking environmentally friendly paint related materials and coatings. LEAD painters have learned to see waste at the Iowa Waste Reduction Center (IWRC) and are finding ways to reduce hazardous waste streams in their facilities, while helping Letterkenny to remain a “Green Depot”. The tables below illustrate the benefits to be gained by training in proper painting techniques and learning to reduce waste, which include material savings and reduced VOC emissions and hazardous waste disposal.



A comparison of parts coated before and after training. Notice the drastic reduction in the amount of overspray on the backdrops from before (right) to after (left).

Section 1 – Cultural Enablers (continued)

The results below are for all STAR4D training classes to date

Number of Students: 374	Pre Test	Post Test	Difference	% Change
Transfer Efficiency	55.25%	64.71%	9.46%	17.12% Increase
Mil Build Average for:				
Hood	2.95	3.10	0.15	5.08%
Fender	3.17	3.02	0.15	4.73%
Gallons of Coatings Used	0.14	0.13	0.01	7.14% Reduction
Pounds of VOC Released	0.42	0.38	0.04	9.52% Reduction