



Rapid Response

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Facility Checklist to Identify Environmental Waste Requested by Dave O'Connell, Idaho TechHelp

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Request:

Is there a fairly concise, but comprehensive list of environmental assessment points to use during lean events and facility walkthroughs to identify environmental opportunities that we may not otherwise uncover?

Key Findings

While there are many environmental audit tools and checklists, PPRC decided to publish our own list based on the lean and environment that began in Washington State. This work involved the Washington State Department of Ecology (Ecology), and the Washington Manufacturing Extension Partnership (MEP), Impact Washington (IW) who worked together to conduct [three successful pilot projects](#) in Washington. Ecology contributed the environmental expertise to the projects, while IW contributed the lean expertise. These two groups began integrating lean and pollution prevention/environment in 1997 and cross-trained each other in their respective expertise areas. This resulted in an initial draft of the checklist for the lean experts to identify “environmental pain” and the environmental experts to identify “lean pain” at a facility. PPRC used this as a starting point to compile a more comprehensive checklist.

Background

Recently, lean practitioners have become more interested in incorporating environmental considerations into lean activities. Lean methods seek to eliminate waste, and inherently results in some environmental savings for companies that implement lean. However, traditionally the seven deadly wastes of lean (see Figure 1) are identified from the productivity and competitiveness standpoint more so than environmental.

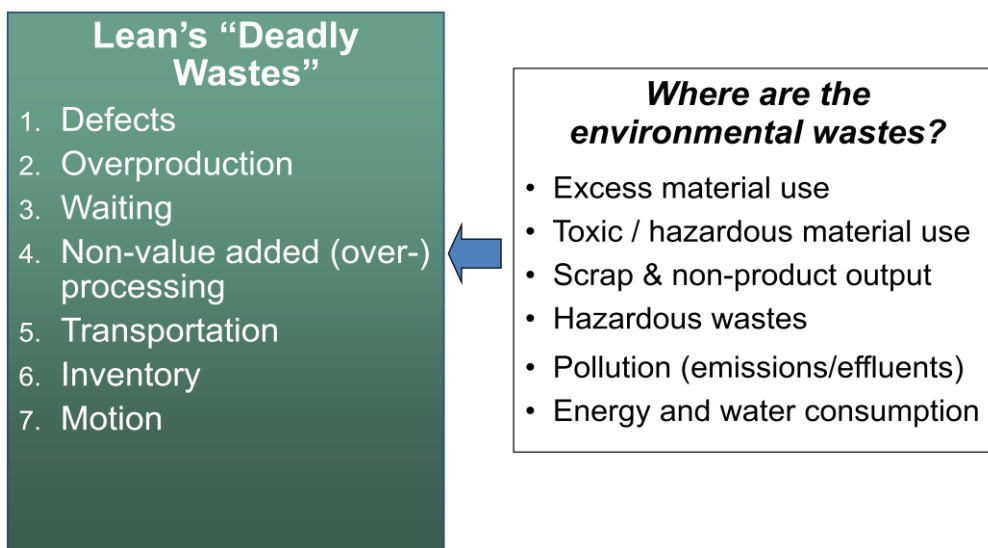


Figure 1: Comparing Lean and Environmental Wastes and Overlaps

Many lean practitioners, especially the [network of MEPs](#) that PPRC knows, are now integrating environmental considerations into lean activities.

Conclusions

The [Facility Environmental Checklist](#) is intended to be a helpful tool for lean practitioners, or others, to identify some environmental opportunities at a manufacturing facility. The checklist points (visual, auditory and olfactory indicators) and questions are presented in three pages total, and are categorized under the following headings:

- Corporate
- Energy Use
- Fuel Use
- Steam Systems
- Water Use
- Wastewater Generation
- Emissions and Air Quality
- Hazardous Materials and Chemicals: Inventory and Use
- Hazardous Waste – Generation, Accumulation, and Storage
- Stormwater

The questions apply generally to any industrial plant and not to a specific industry. The list provides triggers for identifying potential environmental opportunities, but is not all-inclusive, as this would be prohibitive to quick reference and use during a facility walkthrough.

Please contact PPRC for additional research for solutions to specific findings within this checklist, and/or more comprehensive or industry-specific checklist(s) and information, or referrals to technical or regulatory expertise on any of the listed opportunities.