

LIVE FREE OR DIE
NEW HAMPSHIRE
Department of Environmental Services

Lean Manufacturing & Pollution Prevention

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New Hampshire project objectives:

- Determine if it's possible and practical to integrate Lean and P2 methodologies.
- Develop a working relationship between two mutually-unfamiliar programs (NH Pollution Prevention Program & NH Manufacturing Extension Partnership).

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<p><i>Lean Manufacturing</i> is activities or strategies that:</p> <ul style="list-style-type: none"> • Eliminate or reduce the expenditure of resources for anything other than what is of value to the customer • Make better use of production time, raw materials or energy • (Thereby reducing waste) 	<p><i>Pollution Prevention</i> is activities or strategies that:</p> <ul style="list-style-type: none"> • Eliminate or reduce the volume or toxicity of wastes • Conserve water or energy • Reuse materials & wastes • (Thereby increasing efficiency)
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Integrating Lean and P2 methods – similarities:

<u>Lean</u>	=	<u>P2</u>	
Value Stream Mapping	=	Process Flow Diagramming	
Kaizen Event	=	Brain Storming	

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Integrating Lean and P2 methods – differences:

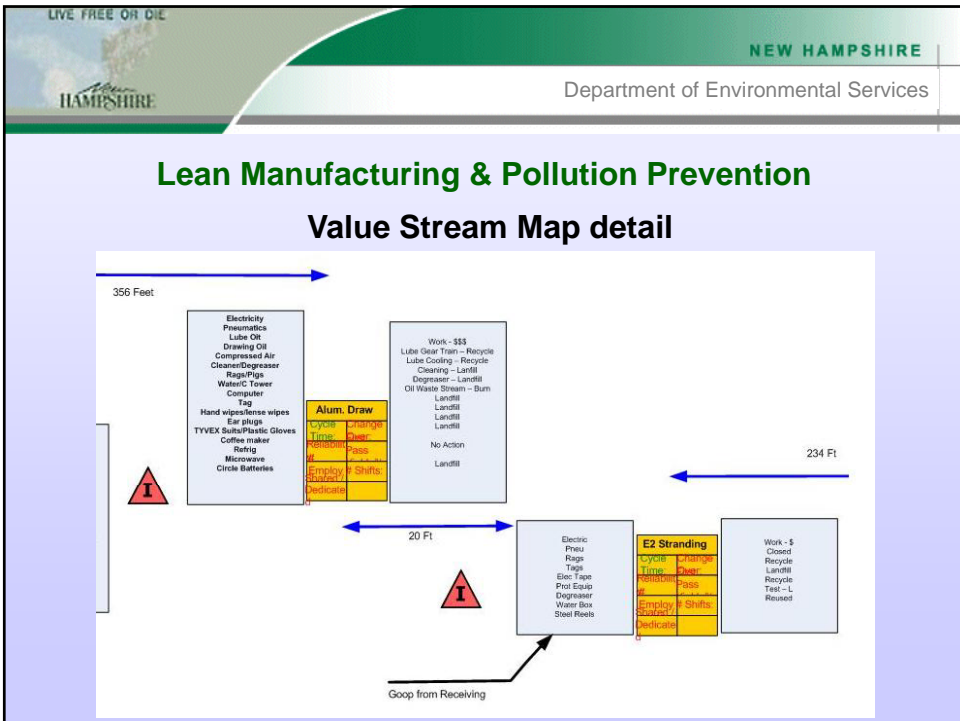
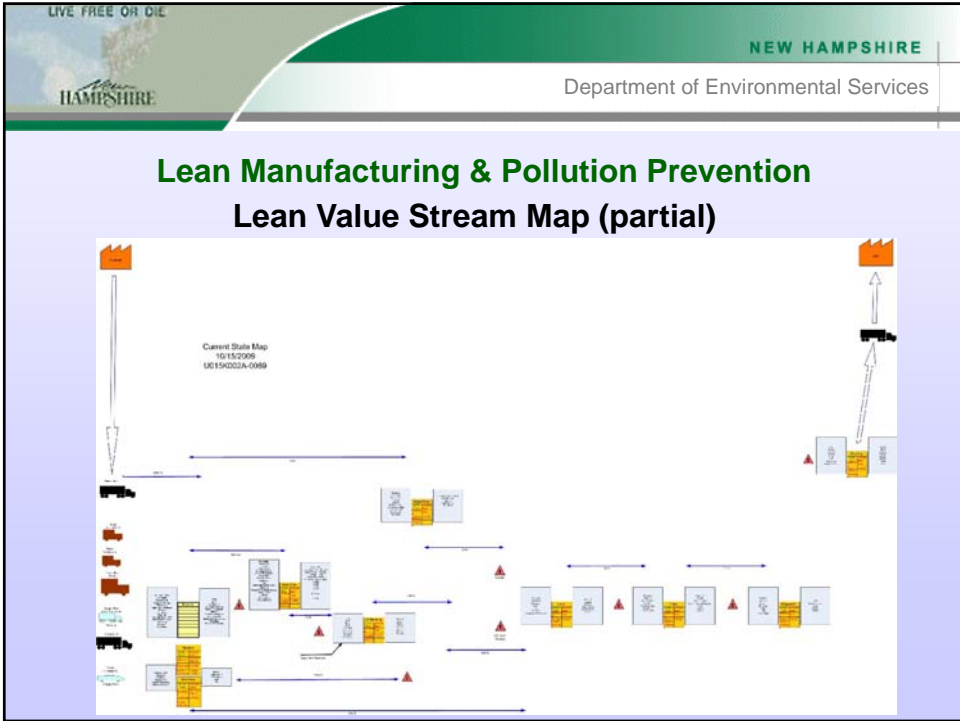
<p><u>MEP (Lean Programs)</u> ≠</p> <p>Paid consultants Private business program Subcontracted specialists 3 to 4 day process Strategies implemented & measured</p>	<p><u>NHPPP (P2 Programs)</u></p> <p>Free Services “State” program 1 to 2 day process Services generally end with report</p>
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Integrating Lean and P2 methods – differences:

<p><u>Lean variables</u> ≠</p> <p>Cycle Time Distances Lead Time Changeover Takt Time Raw materials</p>	<p><u>P2 variables</u></p> <p>Hazardous matls. Equipment losses Operating flaws Spills, Leaks Hazardous Wastes Emissions/discharges</p>
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The New Hampshire experience:

- CIL, Inc. – What is Lean? Who are the players?
- BAE Systems – Can we work together?
- High Liner Foods – Where does P2 fit in?
- Hendrix Wire – It all comes together.

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The New Hampshire experience:

Lessons Learned:

- Lean and P2 methods are compatible.
- Building a relationship is crucial.
- Lean and P2 usually develop the same strategies.
- Each can serve as a resource to the other.

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The New Hampshire experience:

Next Steps:

- More combined assessments?
- Mutual program promotion
- Other combined activities

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The New Hampshire experience:

- The project was a success in that the objectives were achieved.
- Each program developed an understanding and respect for each other.
- NHPPP and NH MEP aren't getting married, maybe just going steady.