



Greening of Food and Beverage Industries in North Carolina

Center for Sustainability
College of Engineering and
Technology



East Carolina University®



- Project funded by the Environmental Protection Agency (EPA).
- This project provides P2 assessments, on-site training and technical assistance to the food and beverage industries of NC.
- One-day site visit , the site assessment team usually consists of two engineering faculty, 1 graduate student, 3 senior level (Mech./Elect./Env.) engineering students.
- During the visit, the team will identify areas of potential necessary environmental improvement.
- Additionally, data will be collected from each site to include but not be limited to, energy, water, and sewer usage and costs, and production characteristics.



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Energy Savings Potential Areas

- Lighting (indoor and outdoor)
- Lighting control
- Chillers
- Boilers and steam systems
- Ventilation systems
- Air conditioning systems
- Office equipment
- Domestic hot water
- Building insulation
- Infiltration (air leakage into buildings)
- Compressed air

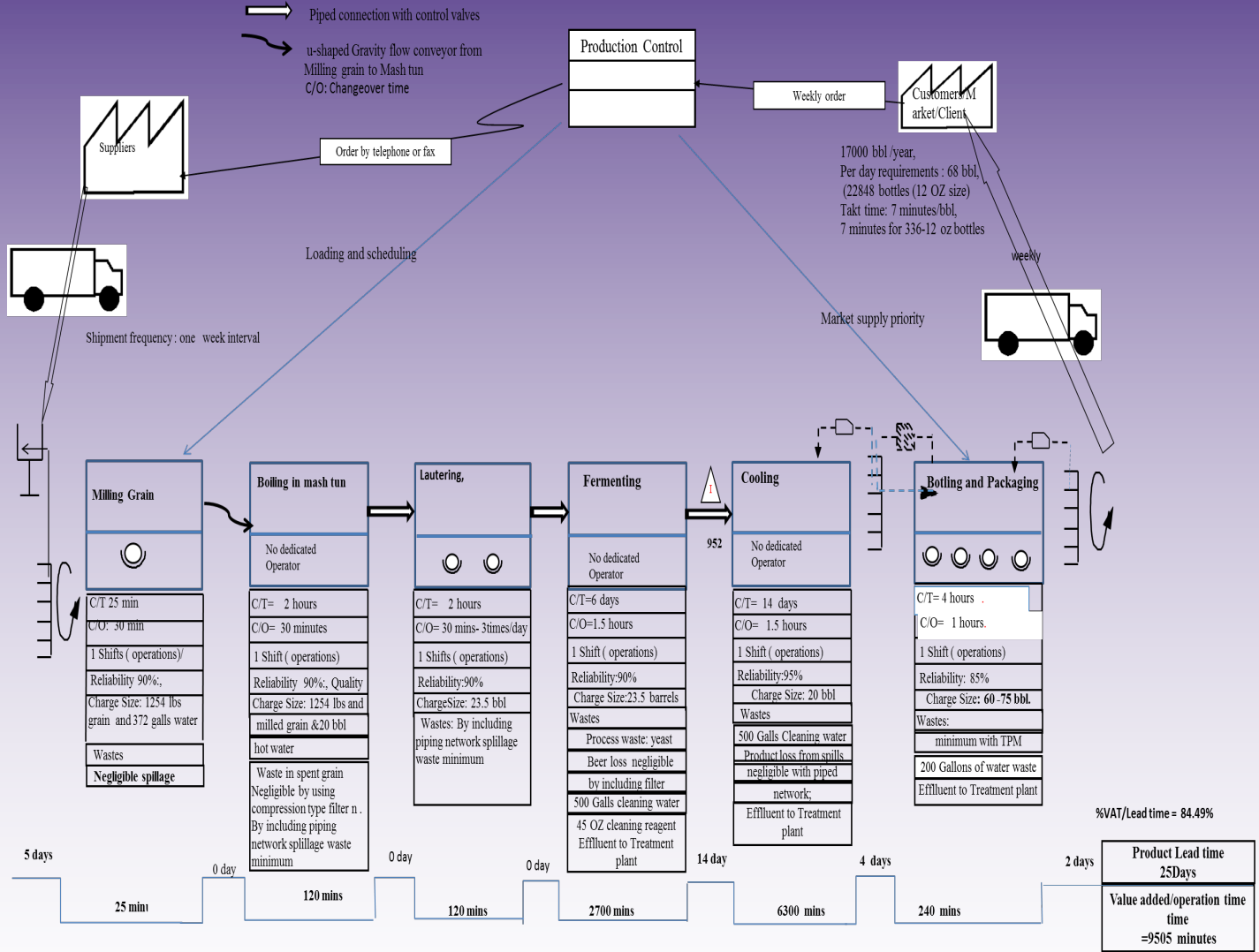


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Summary of Lean Assessment Recommendations (AR)

AR No.	Description	Average Annual Savings	Average Implementation Cost	Payback Period (years)
1	Install a grain silo nearby the grain milling and include a grain pump to supply grain to milling			
2.	a) Reduction of malted grain inventory b) Include Kanban controlled grain ordering and monitoring			
3	Valve controlled piping network and sump pump based supply system to reduce product loss			
4	Include Filtering system to separate Yeast from the product, reduce environmental concerns from Yeast when it is flowing to river or town sewer.			
5	Implement Total Productive Maintenance System for packing line to reduce line down time, loss of product, beer cans, and bottles			

Future State Value Stream Map





Contact Us

Center for Sustainability
College of Engineering and Technology
East Carolina University
RW-208B Rivers Building
Greenville, NC 27858-4353

Phone: 252-328-9469

email: sustainabilitycenter@ecu.edu

Web: <http://www.ecu.edu/cs-cet/sustainability/>



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