



MTS SYSTEMS CORPORATION - Policy

TITLE:**MTS – Eden Prairie Operations Group- Lean supply chain - chemical management policy****NUMBER:****EHS-100-103****REVISION:****A****EFFECTIVE DATE:****12/30/2015****PAGE:****1 of 4**

1.0 Purpose

This policy is intended to support and guide all MTS-Eden Prairie Operations Division employees and related procurement and management support staff in regard to incorporating a more integrated system of supplier lead times and delivery schedules as they pertain to requested and purchased chemical supply materials.

2.0 Scope

Applies to all MTS-Eden Prairie Operations Division departments and their employees/support staff

3.0 Definitions

“ Policy” - A policy is a document that establishes MTS operating principles or general rules regarding administrative matters. The effective date may be different from the issue date.

“Lean” - is a systematic method for the elimination of waste within a manufacturing process. Lean also takes into account waste created through overburden and waste created through unevenness in workloads).

“Chemical Material” – A substance with a definite chemical composition”, it can either be a pure chemical element or a pure chemical compound (liquid, solid, or composite).

“Supply Chain” – the sequence of processes involved in the production and distribution of a commodity.

“Office Areas” - defines any and all locations where production/processing of materials and equipment are not designated or allowed and where computer, phone, paperwork, and other similar desk only activities and actions are performed (does not apply to dual use desk/work bench areas located in select locations – they are considered low level production/manufacturing areas)

“Value” – a capability provided to a customer at the right time at an appropriate price, as defined by the customer

“Waste” – any activity that consumes time, resources, or space but does not add any value to the product or service



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4.0 Policy

In the course of performing or fulfilling work obligations, projects, and related processes it may become necessary for MTS – Eden Prairie Operations employees to adopt a more “Lean” based approach and philosophy when it comes to the procurement, shipping, receiving, handling, and distribution of chemical items and related products throughout the production, manufacturing, research and support areas. This process would require establishing a distinct, cooperative/collaborative supplier relationship in which such materials and supplies would be easily, and readily available, in amounts and areas when and as needed, and in just the right place and amounts for production activities.

The focus of such an effort would be to eliminate wastes generated from excess or dated/expired materials, while reducing inventory/supply and storage pressures by synchronizing the flow of needed chemicals to areas, minimizing and reducing transaction and production costs, developing rapid/quick response capabilities, all while managing supply uncertainty and risk, while aligning with core, customer driven production schedules and demands.

5.0 Process

5.1 Managers, supervisors and procurement staff will attempt to develop and foster the following lean based principles and practices:

Design supplier network architecture – based upon identified customer and business strategic goals and initiative. Management staff will identify core suppliers (generally fewer in number), utilizing measured and sustained past performance criteria.

Develop complementary supplier capabilities – ensure supplier capabilities and confirm core competencies, targeting supplier development in order to encourage and delegate greater responsibilities for inventory support and control to the supplier

Create flow and pull throughout the supplier network – increased process linking (IT/IS infrastructure) in order to support greater two-way information exchange and more synchronized material delivery

Establish cooperative relationships and effective coordination mechanisms – foster mutual assistance and joint problem solving, maintain open and timely communication, increase strategic partnership and alliances with those identified as reliable and effective in order to support increased interdependence and a “shared destiny” common interest, so all involved will understand what the desired business outcome is and drive towards that goal

Maximize flexibility and responsiveness – support and encourage rapid response capabilities by creating more seamless information flows and supporting flexible contracting

Supplier integration – include suppliers, as applicable, into some of the development and process design phases to target cost reduction opportunities and a more design to cost approach

5.2 Synchronizing Delivery with Production demands

Synchronizing production and delivery throughout a supply chain network is one of the central pillars to the lean approach and concept, entailing the following program elements MTS could adopt over time:



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- Integration of supplier lead times and delivery schedules as much as possible
- Utilize such tools as cycle/takt time determinations, load leveling, line balancing or when applicable, one piece flow systems to tie into suppliers and directly reflect customer demands, while minimizing storage and raw material supply demands
- Attempt to minimize inventory through all tiers of the supply chain for all chemical products and materials – focus on the most common materials/those more readily obtained from suppliers and warehouses
- On-time supplier delivery to point of use for chemical items and materials as much as possible (options for as needed warehouse and other potential arrangements with suppliers)
- Drive suppliers towards zero quality defects and reduce overall source or incoming inspection needs
- Expect and evaluate suppliers based upon increasing their efficiencies and the benefits to production from on-time, as needed materials (when applicable) = continuous drive to improve turnaround times and products by monitoring and measuring performance- highlight such progress in a visible and notable way, and encourage the development of more environmentally and health/safety improvements for materials and items utilized (alternative or replacement options and development possibilities explored)

5.3 Mutual benefits derived from establishing strong strategic partnerships and alliances

- Reduced transaction costs (less information gathering time/effort and cost, less contract negotiation and billing/processing time)
- Improved resource planning and investment decisions
- Greater production predictability and efficiency
- Improved deployment of complementary capabilities
- Greater knowledge integration and R&D effectiveness – better understanding of feasibility, best approaches and the overall capacity of clients/markets to deliver
- Incentives for increased innovation (through potential cost-sharing, risk sharing or knowledge-sharing efforts)
- Increased mutual commitment to improving joint long-term competitive performance for both MTS and its suppliers/providers



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6.0 Policy Owner

Operations Division- Materials Management, Production Planning / Procurement, and the Environmental Health and Safety Department

7.0 References

Toyota Motor Company – Lean Manufacturing principles and just in time practices

REVISION HISTORY

Rev	Description of Change	Effective Date
1	Initiation Lean Chemical Supply Chain Management Policy	12-30-15