Nopparoot Thammajirote 2013: Sustainable Logistics Organization for Supply Chain of Plastic Resin Industry. Master of Engineering (Engineering Management), Major Field: Engineering Management, Faculty of Engineering at Si Racha. Thesis Advisor: Professor Emeritus Ampika Krairit, M.S. 116 pages.

The main objective of this research is the improvement of supply chain management which must consider environment issue in the business of packing, warehousing, and transportation of plastic pallet by green supply chain management for sustainable organization, researching combined with green design, green procurement, green manufacturing, green logistics with 6 steps; Getting Started, Planning, Generation, Evaluation and Prioritization of Green Options, Implementation of Green Options, Monitoring and Review, and Sustaining Green, for reduction of economic loss , electricity energy loss, fuel loss, carbon dioxide emission, and societal impact. The result for this research is a reduction of economic loss of about 47,306,091 baht/year, a reduction of electricity energy of about 76 megawatt-hour/year, a reduction of natural gas vehicle fuel of about 1,123,200 kg./year, a reduction of liquid petroleum gas for forklift truck of about 33,814 kg./year, a reduction of diesel for transport truck of about 1,156,272 ltr./year, a reduction of carbon dioxide emission 6,007 tons/year, and not having society complaint. This operation can be achieved with top management commitment making all activities along supply chain were balanced between economy side, environment side, and society side.

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Student's Signature Thesis Advisor's Signature