

RIT Center for Quality and Applied Statistics Lean Six Sigma Green Belt Training



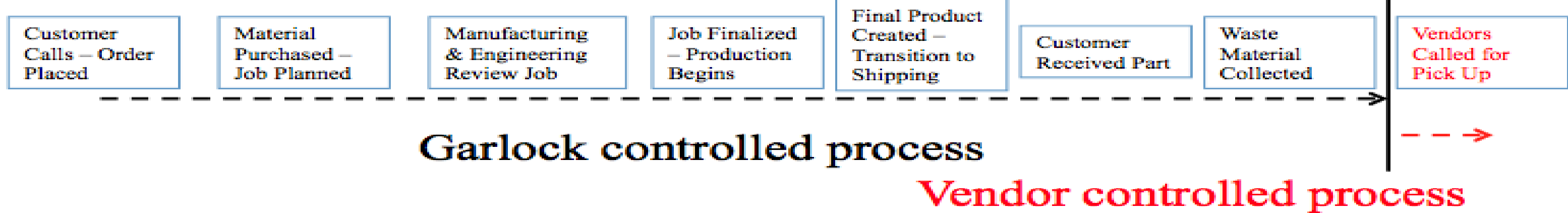
Waste Management Improvement Project



BACKGROUND

Garlock Sealing Technologies is a global leader in high-performance fluid sealing and protection of pipelines. The Garlock waste stream is currently measured and controlled through third party vendors. As a result, there is a strict dependency upon these vendors for data integrity, execution, and process control. The current process from customers calling in their orders to their orders being picked up is as follows:

Flow chart/ Voice of Customer



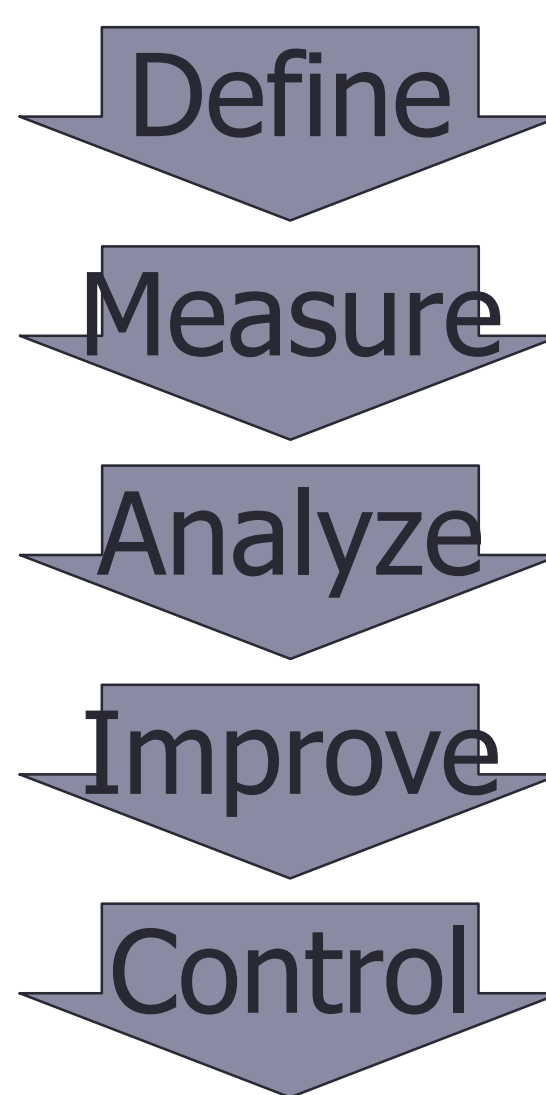
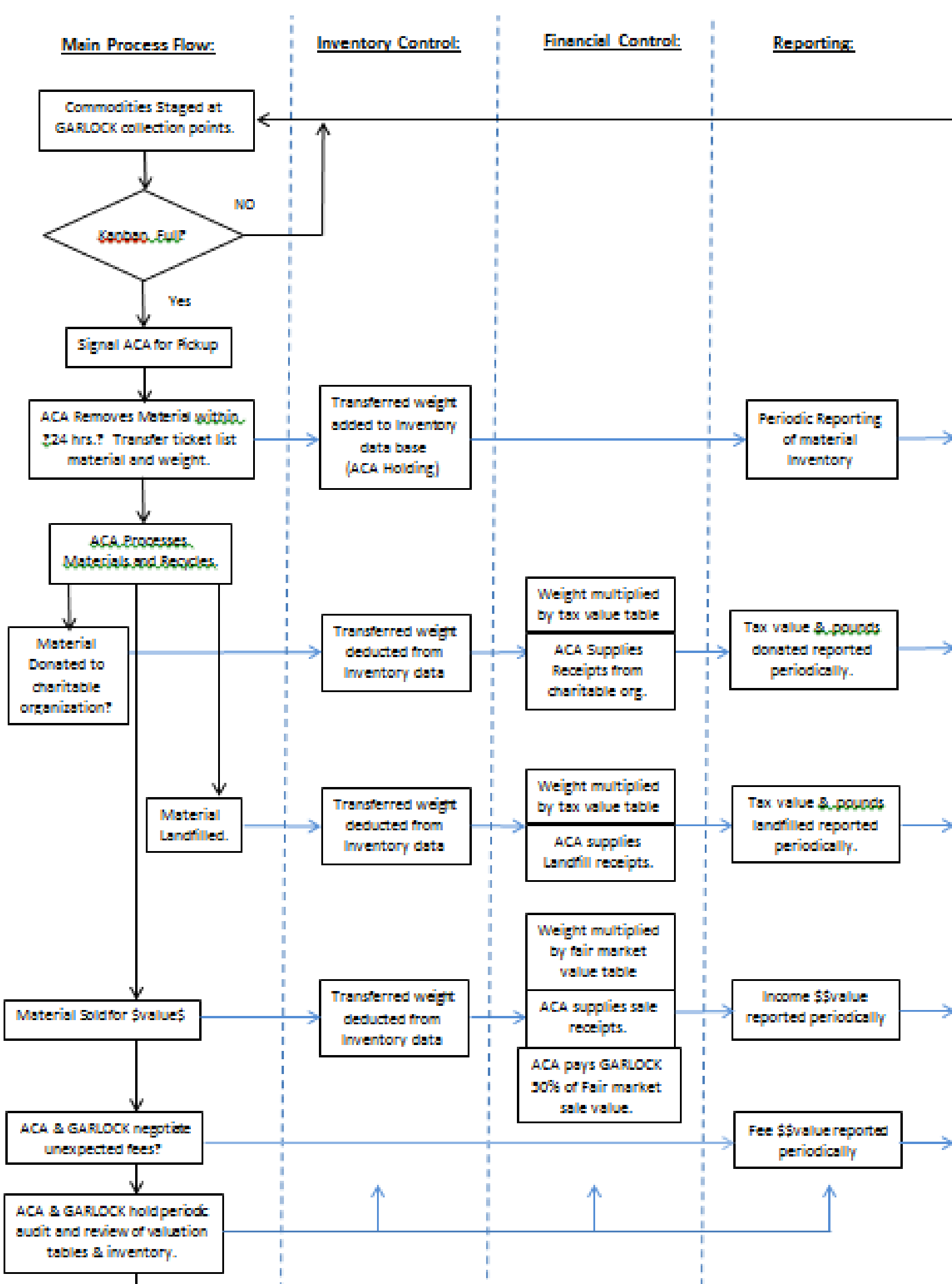
Consequently, measurements of scrap materials collected depend on the post shipment data supplied by the vendor. The data is believed to be inaccurate, incomplete, and often received by Garlock three months late, with significant cost impact.

PROJECT GOAL

The goal of this project is to measure all scrap material at its pickup point and immediately record it in the database. A secondary goal is to reduce waste stream costs and landfill content.

METHODS

A new scrap material input sheet was introduced at one Garlock site that included pictures of the controls for operators moving material onto providers' trucks. The new input sheets were compared against records of the number of bins of material shipped. Discrepancies between the two sheets confirmed the inaccuracy of the data from current providers. Very high fees were found with a low value for the sale of scrap materials. Discussion was held with a nonprofit provider and potential savings were calculated based on the projected scrap material rates. Below is a flow chart of the new method for measuring scrap materials and recording it in the database with the nonprofit provider, along with the process taken to execute this project.



Garlock is dependent on vendor communication when scrap material physically leaves the facility. The current vendor is charging high fees, as well as possibly giving inaccurate and incomplete data to Garlock. We need to see if the vendor is reporting inaccurate data. Switching to other vendors will also be discussed.

Measurement of the scrap material depends on the post shipment data supplied by the current vendor. We will use a new input sheet created to see if accurate measurements are reported. We will then compare what was recorded to what was actually picked up by the vendor.

The data from the new input sheets were deemed inaccurate when compared to the amount of scrap material that was actually picked up. Multiple fees are charged to Garlock by the vendor without justification. Dropping the current vendor and using a nonprofit provider will lead to potential savings based on calculated potential scrap rates.

A flow chart of a new method for measuring scrap materials and recording the data was created and will be executed. Our goal is to reduce waste stream costs and landfilled content.

To ensure the new changes are kept, we will establish a monthly tracking chart for scrap material data and periodically meet with the nonprofit provider. We can already see that fees are significantly reduced and more material is being recycled with the new vendor.

RESULTS

By switching to the nonprofit provider, Garlock's fees have been significantly reduced. The vendor has also demonstrated the capability to recycle rubber by grinding to mulch that, in previous years, has gone to landfill.

CONCLUSIONS

Switching to a new provider for scrap material pickup has been a clear success. The nonprofit provider charges less fees and includes more efforts to be environmentally conscious. The process to reduce waste stream costs and landfill content will be replicated at multiple buildings on the GARLOCK campus and will eventually be rolled-out to Garlock's corporate partners.