Hazardous Waste Management

Introduction

Synertech's unrivalled expertise and experience in the design, development, installation and support of innovative radio frequency identification (RFID) business systems and information management solutions enables the company to offer a fully integrated management system that delivers performance-enhancing benefits associated with key aspects of Hazardous Waste handling, vehicle movement and process compliance.

Traxsense

Synertech's Traxsense software platform brings to life innovative, automated monitoring and tracking solutions by providing clients with dashboards and analytics to easily track all assets and to monitor business performance indicators. Smart sensor enabled assets are transformed into intelligent data sources. These smart assets are connected in real-time which provides organisations with controlled and auditable IOT information. Traxsense not only provides for immediate management decisions, it also harnesses the power of data analytics for business optimisation.

Background

Hazardous waste refers to any physical, biological, or chemical item, which has the potential to cause harm to living organisms or the environment.

Hazardous waste management involves reducing the amount of hazardous substances produced, treating hazardous wastes to reduce their toxicity, and applying sound engineering controls to reduce or eliminate exposures to these wastes.

Due to its nature and the severe consequences leading a from lack of control, the Hazardous Waste industry is highly regulated

and calls for accurate data on process conformance. Businesses need to be able to show the trail up until destruction of the material in near real time and keep historical documented proof. Utilising the latest in AIDC (Automated Identification and Data Capture) technologies, Synertech's Hazardous Waste Management product aims to fulfil the need of this demanding industry and the regulations that govern it.

Bio-Waste

Solution Overview

Synertech assists organisations with Automated Identification and Data Capture (AIDC) tracking and tracing technology that augments sound engineering controls.

The solution interfaces with the organisation's waste collection scheduling and invoicing system(s) in order to provide a comprehensive track and trace enabling for the organisation's legal obligations to demonstrate automated records for the collection, weighing, transport, storage, and disposal of waste.

Through Synertech's Traxsense software platform and a variety of hardware options, the Hazardous Waste disposal lifespan is automatically tracked with real-time visibility. By RFID tagging the waste container, providing each transport vessel with its own unique identifier as well as through integration with our own weighbridge automation system, complete cradle to grave traceability becomes reality. Through its lifespan of transactions, the container is not only tracked as it moves through fixed portals, but mobile RFID readers provide the ability to deploy to large fleets expanding the reach to virtually anywhere. The use of this technology helps to ensure compliance with local legislation as well as the standards set out by ISO 14000 with specific regard to the management of the storage, transport, treatment and disposal of hazardous waste material and the tracking of these materials. GPS coordinates are associated to each transaction and the sign on glass ability (ePOD), ensures accountability whilst reducing paper usage. Through our revolutionary technology, the system automatically attaches the weight received from a scale to the waste container.

By adopting this AIDC tracking and tracing technology solution, which is based on Radio Frequency Identification (RFID) technology, manual intervention in the process is reduced by means of the paperless proof of collection and delivery of waste. Unauthorized movements of waste can be managed with automated exception alerts and the waste manifests updated accordingly.

The RFID based solution that Synertech provides is more than just a hardware or software system. It is engineered on a set of components, specifically selected on pre-defined criteria. As a base, all system components are taken into consideration to adhere to local and international standards.

Key features at a glance

- Web based platform provides access from anywhere to virtually unlimited users
- In-house software development and manufacturing ensures configuration for any client's unique requirements
- Multiple AIDC devices and IOT sensors feeding data into the system for rich data
- Integration with already existing systems
- Real-time process visibility leading to analytics for Business Intelligence and process refinement

Business benefits at a glance

- Real time & automated data reporting
- Live Dashboards providing a quick accurate overview for effective management
- Live exception reporting and alerts when process deviation occurs
- Improved process control

Hazardous Waste Drums

- Increased data accuracy through automation, minimising human error
- Compliance control traceability and visibility
- Paper reduction
- Optimization of human capital and fleet resources

After-Sales Service

- Warranty – All systems are backed by a 12-month warranty on materials and workmanship commencing from date of delivery
- Maintenance and support - A range of technical support and maintenance options are available based on formal service level agreements
- Training - Various training options are available ranging from comprehensive classroom training to on-the job training. All systems are provided with training documentation

Summary

Designed, developed and implemented by Synertech, a proudly South African company with more than a decade of success at the forefront of supplying innovative RFID technological solutions to clients across a broad range of industry sectors, the company's hazardous waste management solution offers unprecedented value and operational business benefits.

RFID Enabled Waste Buckets

Living Technology
Synertech