

Waste Fuels Information Management System

A data management solution designed for waste fuels processing facilities

High fuel costs have forced many cement plants to search for alternate fuel sources. This search has encompassed non-hazardous fuels, such as tires and industrial waste, and hazardous (EPA regulated) fuels in both solid and liquid form.

The *Waste Fuels Information Management System (WFIMS)* from Process Solutions is a comprehensive software suite for the management of analysis, approval, handling and processing of waste material streams used as an alternative fuel source in cement kilns.

WFIMS can help cement companies significantly improve operating efficiency by providing complete traceability of pre-qualified waste streams, shipments, containers and analytical samples, and facilitating reporting requirements for customers and regulators.

The primary components of the *WFIMS* Suite are:

1. Laboratory Data Management
2. Qualification Creation
3. Qualification Approval
4. Waste Tracking
5. Tank Management

Laboratory Data Management

The *Laboratory Data Management* module eliminates the requirement for hand-copying and multiple handling of sample analysis results. It automates the process of performing a direct comparison between shipment samples and a defined profile for a pre-qualified waste stream. This laboratory quality-assurance tool facilitates process and product review, by providing easy-to-use data entry screens in a user-friendly data structure. The strength of this module lies in its link to a wide and growing range of laboratory instruments from many suppliers. Electronic capture of information frees up laboratory staff to perform other tasks and eliminates transcription errors.

Qualification Creation & Approval

This module provides a mechanism for organizing and storing the extensive data associated with the pre-qualification of waste streams, including the registration of samples to be analyzed by the laboratory, and the linkage to the analytical results stored in the laboratory module.

QualCreate manages all pre-qualification records for waste streams against which shipments of material may be submitted for processing. Within this module, the Bill-To customer and generating facility (generator) for every submitted waste stream is identified, waste profile survey data is entered and qualification sample(s) are registered.

QualApprove provides an automated method to notify those responsible for approving each waste stream that has been submitted for pre-qualification, and allows them register their approval decision.

Waste Tracking

This module provides a complete end-to-end method of recording waste material transactions, from initial scheduling of incoming shipments through receiving, storage, and processing, including the creation and processing of outbound shipments to alternative waste handling facilities.

Data regarding pre-qualifications (waste profile surveys and waste material generator details) is maintained through the *QualCreate* module, and retrieved as required by the *Waste Tracking* module.

Waste Tracking covers processing (scheduling, receiving and shipping) of waste material, inventory management in storage/processing locations, and interactions between the materials handling functions and the analytical and management functions of a waste fuels processing operation.

The data gathered in the tracking system provides the basis for a range of regulatory and customer reporting requirements.

Waste Tracking supports the recording and tracking of bulk shipments and individual containers into storage, and of the movement of containers through batch sampling and transferring into fuels processing. It includes an inventory verification function that provides periodic inventories of all containers in storage and reconciliation of records based on inventory results.

Tank Management

Tank Management includes the recording of information about tank configurations, the unloading of shipments into tanks, inter-tank transfers and tenders. These tank “transactions” are used to calculate the current tank analytical properties such as BTU, Chlorine, and Water and EPA and State waste codes.

Tank Management also includes an optimization module which recommends the optimum allocation of shipments and tank transfers among the blending tanks based on site targets. These targets may be set based on chemical properties, fuel quality and/or site emission quotas.

Instrument Calibration & Maintenance

The *Instrument Calibration & Maintenance* module is a data management tool dedicated to recording calibration and service history for instruments and equipment. It can be used with the *Laboratory* module, to automatically supply instrument calibration factors during analysis, or as a stand-alone package that helps a waste processing facility manage its laboratory instruments and analytical solutions, as well as its process instrumentation.

Calibration data can be pre-entered into this module without the data becoming active or valid until the calibration is authorized. All historical information is maintained for reference.

Data Query and Reporting

Each production facility has its own unique requirements, so no single reporting format can satisfy each all requirements. To satisfy a facility’s reporting needs, WFIMS employs reporting tools such as Microsoft® Excel, Symantec® Crystal Reports™, and our own easy-to-use *Query* tool that extracts data for ad-hoc reporting. Many common reports such as State manifests and EPA reports are preconfigured.

Customer Assurance and Support

Process Solutions has been focused on providing technology solutions to the Cement Industry for over 20 years. This concentration on supporting many facets of cement operations has given us a solid understanding of the varying needs, issues and working environment of the industry.

We work with clients to design and/or customize their solution, and later to install, implement and maintain the necessary software and hardware. This process typically includes an on-site survey to confirm site specific requirements before detailed planning and implementation start.

We offer a full 12-month warranty on all of our solutions, and provide customized ongoing maintenance and support agreements. Our Customer Care team provides 24/7 Help Desk support, and develop their in-depth site knowledge by performing the on-site installations.

We strive to establish long-term partnerships with our clients, helping them get the most from their existing solution(s), while at the same time further developing our portfolio to satisfy their needs in the longer term.

Process Solutions continually updates and improves core technologies. We rely on user feedback to make our software better suited to the industry, and all of our software can be tailored to individual site requirements.



Summary

WFIMS provides a complete data management system for a waste fuels processing facility and improves facility operation by:

- ↪ Eliminating multiple, manual data entry for tracking, inventory, billing and regulatory reporting
- ↪ Improving communication between the receiving, laboratory and fuel handlers
- ↪ Accurately tracking shipments of bulk or container fuels from receipt to destruction
- ↪ Simplifying regulatory reporting and reducing complexity of internal reporting

If you would like to discuss our *Waste Fuels Information Management System*, please contact our Quality & Environmental Solutions Manager:

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