



U.S. Army Red River Depot

US Army Red River Depot's Hazardous Materials Management System (HMMS) Achieves Stellar Record with State Agency

The United States Army's Red River Army Depot (RRAD), located in the northeast corner of Texas, is a 600,000 square foot production complex located on more than 18,000 acres of land among 1,400 buildings. It serves as an ammunition depot storage site and maintenance facility for the Bradley Fighting Vehicle, Multiple Launch Rocket System, and combat tactical wheeled vehicles. In addition, RRAD's rubber production facilities remanufacture track shoes, track shoe components and road wheels for those vehicles.

Many of its storage and maintenance processes — which include metal cleaning, painting, paint removal and electroplating — require the use of numerous chemicals or materials that generate significant quantities of waste. RRAD's Environmental Division staff members carefully track and manage thousands of transactions involving material receipt, inventory and waste generation to assure full compliance with state, federal and U.S. Army regulations, governing "Right-to-Know," chemical inventory, materials management and waste storage and disposal laws. For more than 16 years, RRAD's HMMS material and waste program has earned high marks from outside entities, including regulatory agencies.

Renita Foster, a civilian supervisor in the RRAD Environmental Division, reports that one key factor in the depot's successful track record has been its extensive use of *Sphera Hazardous Materials Management System (HMMS)* software. *HMMS* is the only cradle-to-grave hazardous material and hazardous waste management software on the market that was developed in partnership with the US Department of Defense (DoD) user community.

Red River Army Depot environmental personnel use Sphera *HMMS* to quickly and easily track their chemical inventory from pre-acquisition, receipt, labeling, and storage through usage. The *HMMS Waste Management* module lets Depot personnel track waste from the point of generation, through storage to disposition. Foster and her colleagues use *HMMS* to maintain up-to-the-minute status and location of chemicals as they move through RRAD's massive manufacturing complex.

RRAD established a stellar record with regulators for waste management conformance and reporting that the State of Texas elected not to conduct annual HW inspection at the depot in 2010 and 2011.

CHALLENGE

- Manage high volume of hazardous materials and waste in compliance with state, federal and military regulations
- Provide up-to-the-minute visibility into status and location of materials & waste onsite
- Identify opportunities to reduce materials inventory, thereby eliminating need for waste disposal.

SOLUTION

Hazardous Material Management System (HMMS)

- Waste Management
- Material Management

RESULTS

- More than 16 years proven performance streamlining regulatory compliance.
- Thousands of material transactions tracked from pre-acquisition, receipt, labeling and storage through use and waste disposal
- Zero non-conformance in waste container identification/labeling and inventory management with progress starting after just one year
- RRAD waste management program is so effective that the State of Texas elected not to conduct its annual inspection in 2010 & 2011
- System helps environmental division staff identify Pollution Prevention (P2) opportunities.

Red River Army Depot's Model Program for Materials and Waste Management

Foster's involvement with *HMMS* began in 1993, when RRAD was using the *HMMS Materials*. Renita Foster, a civilian supervisor in the RRAD Environmental Division, reports that one key factor in the depot's successful track record has been its extensive use of *Sphera Hazardous Materials Management System (HMMS)* software. *HMMS* is the only cradle-to-grave hazardous material and hazardous waste management software on the market that was developed in partnership with the US Department of Defense (DoD) user community.

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Foster had previously worked with Depot Information Technology (IT) staff members to develop a homegrown system to manage all waste transactions and assist in environmental compliance. In 1993, however, *HMMS* developers approached Foster about an opportunity to offer input into a new waste management solution that they were developing. *HMMS* managers recognized that Foster could provide valuable insight into functionalities that would be most useful for government and military personnel who are responsible for environmental compliance. Foster spent 3 weeks with *HMMS* IT staff members, providing functionality specifications for the development of the *HMMS* waste module.

Within a year, Red River Depot was among the first facilities to implement *HMMS Waste Management* software. It did not take long for the system to generate improvements in the depot's waste management performance.

"The biggest opportunities for improvement in waste management were in the identification and labeling of Hazardous waste containers. With the *HMMS* system we've eliminated non-conformances down to zero on identification and labeling, and inventory management" Foster said, proudly. "We noticed major improvements within a year of the implementation."

"Now, when the state and the EPA come in for an inspection, I immediately have the information they want, with 75 percent coming from the *HMMS* program, and then they go out to our storage facilities and everything is uniform and standard," she added. "I can tell that they think we are doing

a great job because I was requested to speak at the State of Texas Investigators Conference in 2010 to showcase the Depot's compliance efforts in hazardous waste using the *HMMS* system."

Foster notes that *HMMS'* interoperability with the Defense Logistics Agency (DLA/DRMO) system is another factor in the Depot's success. DLA tracks and monitors all shipping activities for the Depot. DLA transactions are received directly from *HMMS*, so the environmental team has up-to-date information on all waste related activities involving receipt, shipment

and disposition of containers from their facility. When containers arrive at the disposal facility, DLA deliver a confirmation record directly to *HMMS*, which completes the Depot's cradle-to-grave tracking to maintain compliance.

In addition to its support of Red River Army Depot's day-to-day compliance requirements, *HMMS* provides reports that help Foster and her colleagues identify and act on costly materials usage trends and waste generation.

"The *HMMS* system helps us focus on things that are really costing the Depot money and find areas where we have high volume of waste generation. *HMMS* produces costing reports associated with those volumes. We can look at trends and decide our priority, saving money and reducing volume," said Foster. "We can also go into *HMMS* and identify the increases and areas of decreases in waste generation. This lets us pinpoint areas where we need to ask if pollution prevention efforts or process changes are needed to reduce chemical consumption."

RRAD's successful environmental program using the *HMMS* system has been a catalyst for other military facilities to implement *HMMS*. Foster has been the lead *HMMS* trainer for the DoD since the early 1990's and has trained hundreds of government personnel at Army, Airforce, Marine, Navy and NASA facilities. She has also been actively involved in the *HMMS* Core Working Group's activities, serving the entire user community by supporting the effective utilization of technology resources to continually improve environmental performance at federal and military agencies.

"With the HMMS system we've eliminated non-conformances down to zero on [waste] identification and labeling, and inventory management."

Renita Foster,
Civilian Supervisor,
US Army - Red River Army Depot