Electronic format can streamline HSE information

A NEW TWIST to its Global Excellence Management System (GEMS) was recently launched by Diamond Offshore Drilling Inc.

GEMS is the company’s quality program that was developed in the early 1990s to monitor its safety and quality efforts. The new GEMS system has broadened its scope to embrace a user-friendly format that brings “knowledge management” to crew members working in the field around the world.

“We now have a quality system with an easy-to-use electronic format to monitor, control and continually improve our performance,” explains Glen Merrifield, Vice President of Management Systems.

“The key element is the search engine that can query all documents in the system for information relating to the search criteria,” he says. “Employees previously needed to do a manual search through several thick manuals and now they click a few buttons and within seconds they have material that is linked to external regulatory agencies and customer requirements.”

For example, employees can type in the word “lifeboat” on the computer and a rapid search is done for all documents relating to lifeboats. A list shows where any documents on lifeboats can be found and provides instant links to the information.

IN-HOUSE PRODUCTION

Helping to coordinate the in-house effort is Annette Prewitt, Quality Assurance Manager. The first step was to review the requirements from regulatory agencies, quality programs and Diamond Offshore’s customers. Table 1 includes programs from the U.S. Department of Interior’s Minerals Management Service (MMS), International Maritime Organization (IMO), American Petroleum Institute and International Standards Organization (ISO) 9002 & 14001.

“The review showed that the majority of requirements were very similar,” she said, “and a follow-up gap analysis determined which requirements from customers and agencies were missing from GEMS. At that point, GEMS was expanded to meet those requirements.”

For the program’s cost-effectiveness, Mr. Merrifield and Ms Prewitt tackled program development through the use of existing software. Compact disks are created in-house. So far, the team has produced two issues of CDs and the information contained on the disks replaces more than two dozen bulky manuals.

GEMS IN ACTION

Many crew members throughout the company’s fleet were at first skeptical about the new electronic format but they now realize the advantages. One example of how GEMS brings effective knowledge management to the field personnel occurred on the Ocean Epoch.

During the rig’s upgrade in a shipyard in Singapore, the rig received two new SeaTrax cranes. Barge Captain Mike Rigdon remembered a safety incident regarding the access area to cranes and used GEMS to conduct a search for “Cranes Access.” His brief search brought up a Safety Alert on a crane incident and the appropriate requirement for handrail heights on the access platform to the crane.

“After taking measurements on the related areas of the new cranes, we determined that the hand rails would indeed need to be raised,” said Mr. Rigdon.

“This is what GEMS is all about,” said Ms Prewitt. “This example on the Ocean Epoch demonstrates that the goal of GEMS is easy access to information, and then the use of that information to maintain safety and efficiency in our workplace.”

GEMS is also proving itself in planning for rig safety meetings. Prior to each meeting, personnel can use the search engine to look up a specific topic and have information ready for the meeting. This is an asset for Job Safety Analysis (JSAs) and pre-tour meetings.

A STEP CHANGE

There are no more outdated manuals. A new disk is issued every six months and all components are updated. Critical HSE items that are added or modified in the interim are sent electronically to the worldwide fleet and included in the next issue.

With security programmed into the system, a step change in document control has been achieved.

At each new issue, the master CD from the previous issue is archived instead of a truckload of paper.

CUSTOMERS COMMENT

Paul Ardoin, HSE Coordinator for BHP Petroleum, appreciates the searchability aspect of GEMS.

“Conducting key word searches with GEMS is very easy. This provides quick access to information that rig personnel in the field need. It is not much good to have information if it can’t easily be located.

“For example, the GEMS system offers good Job Safety Analysis principles for each task. We have always told people what they need to know, but we never showed them the information before. Safety is our highest priority, meaning...
Diamond Offshore’s gap analysis chart (portion of each program shown below)

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