

IADC provides cargo handling guidelines

DATA FROM THE IADC Accident Statistics Program show that for the past 15 years, accidents involving rig crews who are transferred to workboats for handling cargo transfer account for an annual average of 7% of all Lost Time Incidents in the US Gulf of Mexico. IADC recently examined this issue and is taking steps to reduce injuries to drilling rig personnel in the Gulf.

A special IADC Task Group has developed guidelines to enhance rig-workboat safety in the document "Guidance for Packaging and Transportation of Cargo for US Offshore Operations". The Task Group was comprised of **Casey Davis, Pride International; Ronald Fitch, Diamond Offshore Drilling Inc.; Dan Holbert, Rowan Companies; Randy Sivils, GlobalSantaFe; and Alan Spackman and Joe Hurt, IADC.**

The guidance objective was adopted to assist offshore operators and contractors in developing safe work practices for the tasks of packaging and transporting cargo to and from offshore facilities. It addresses minimum requirements promulgated by both regulation and industry "best practices".

US GULF PRACTICES

It has long been the practice in the Gulf of Mexico for the operator to supply roustabouts from the rig crew to be transferred to the workboat to unload supplies. In nearly every other operating area of the world, workboats carry designated crew assigned to this task so no rig crew personnel are re-located to the workboat. The rig crew handles loads only aboard the rig.

"In no place in the world other than the Gulf of Mexico is a roustabout required to leave the rig and go to the boat to rig up cargo and offload it," said **Marion Woolie**, IADC Secretary-Treasurer and Senior Vice President of Operations at **GlobalSantaFe**.

"Everywhere else in the world," Mr Woolie continued, "the boats come out with a rigging crew that loads the cargo and knows how it has been loaded.

"In no other part of the world does one leave the rig and become a member of

the boat crew that is unfamiliar with the loads and how they were arranged and the associated hazards."

"Quite honestly," Mr Woolie said, "the Gulf of Mexico practice is behind the times. It is not that we are trying to implement something that is the leading edge of safety. We are trying to catch up with the rest of the world."



Marion Woolie

NEW GUIDELINES FOR US GULF

The document discusses minimum training requirements, guidelines on cargo handling including slings and shackles, pre-slinging, palletized materials, boat loading and unloading recommended practices, and responsibility for loading and unloading.

The guidelines suggest that an on-site competency-based training program and job safety analysis (JSA) on the application of cargo and equipment rigging procedures should be administered by a Qualified Person before any personnel are permitted to rig or sling loads.

A Qualified Person is defined the same as in API Recommended Practice 2D (API RP 2D), Operation and Maintenance of Offshore Cranes.

The following elements at least should be included in a training program:

- Safe loading, unloading and back-loading procedures.
- Crane actions, movements and signals.
- Responsibilities and authorities of personnel involved in typical cargo handling operations at the site.

- Procedures for responding to injuries to personnel, dropped or leaking cargoes and other accidents.

- Personnel protective equipment requirements.

- Responding to unusual occurrences.

- Visual inspection of slings and sling identification.

Additionally, the qualified person should ascertain whether assigned personnel are able to carry out their duties.

To promote personnel safety and efficiency of cargo operations, the guidelines say that all cargo, including tubulars, should be pre-slung at the point of origin or prior to offshore transport. The rigging should be designed so personnel can hook and unhook cargoes from the deck, dock, rig or platform without having to climb onto the cargoes. Proper length slings will largely eliminate any need for personnel to climb or use ladders to hook and unhook cargo.

Mr Woolie says pre-slinging is a giant step toward catching up with the rest of the offshore world. Many of the deepwater Gulf of Mexico operators have already adopted a number of the guidelines and practices, including making pre-slinging of cargoes mandatory. Several of the deepwater operators also require riggers on the workboats.

The reason is that pre-slinging cargoes is safer and more efficient. Turn around time is quicker with pre-slung materials compared with having to sling up each joint of casing, for example.

"Pre-slinging of cargoes is so efficient as far as turn around of boat time, yet still a lot of operators resist it," Mr Woolie said. "GlobalSantaFe worldwide pre-slings all of the materials that are transported to its rigs whether the operator requires it or not."

The guidelines also state that all tubulars such as casing, drill pipe, tubing, etc., should be pre-slung or placed in engineered tubular handling devices that re pre-slung prior to transport.

Companies preparing "loose" material for transport such as bottle racks, tool boxes, welding machines, etc., should

ensure that the cargo is designed appropriately for hoisting, that load bearing points and rigging have been inspected and the weight prominently marked.

Since pallet loading and securing practices that may be acceptable for warehousing and road transport may not be appropriate for offshore cargoes, the following precautions should be observed:

Cargo should not be accepted for transport if it is on damaged pallets.

Arrangements for securing the cargo to the pallet and against shifting should be examined for adequacy

The center of gravity of the cargo should be above the center of the pallet, and top-heavy loads should not be accepted. A load is considered top heavy if the height of its center of gravity is greater than 50% of the minimum dimension of the pallet.

The guidelines also address boat loading and unloading recommended practices including responsibility for loading and unloading supply vessels and inspection of all cargo. Inspections should be made to determine that:

- Containers used to transport cargo are fit for service.
- Cargo weights are clearly marked

and indicted on the manifest.

- Other particulars of the cargo conform to the manifest.
- Slings on pre-slung cargo have been inspected for safe working condition and fit for purpose.
- Cargo in containers with slings attached is positioned to allow access for hook-up from the side of the container and not the top of the container of other cargo.

These inspections also apply when cargo and material are being received from the facility to the supply vessel.

Other cargo for transportation to offshore facilities could at times include hazardous material, in which case particular attentions should be paid to, among other things:

- Appropriate description of the material and its proper name.
- Selection of packaging appropriate for the material.
- Completion of shipping papers and/or manifest.
- Provision of emergency response information, e.g., Material Safety Data Sheets.
- Provision of a 24-hour telephone.

The guidelines also suggest that procedures should be established for all offshore facilities for the categorization, packaging and marking of all wastes prior to transportation to shore. Finally, written procedures should be established for engineered or non-routine lifts, and such operations should be planned and directed by a Qualified person, be subjected to a JSA and documented in a written lifting plan.

THE CHALLENGE

Now that cargo handling guidelines have been established, the challenge is for the IADC membership as well as the operators to implement the guidelines and to pre-sling their cargoes, says Mr Woolie.

Since the guidelines were just introduced in November 2001, it is still too early for a significant response.

"This has been a 10-year battle," Mr Woolie said. "It could take all of 2002 to try to build a groundswell. The membership agreed on these guidelines and it is up to them to implement them "

"It is up to the drilling contractors to go to their customers and demand that they pre-sling their cargo," Mr Woolie said "Let's work on getting the roustabouts off the boats." ■

IADC North Sea Chapt to study rig mechanisation

THE IADC NORTH SEA Chapter, at its Annual General Meeting agreed to put together a Task Force to address North Sea mechanisation. Members are invited to make comments, as the plan is still being formulated.

While mechanisation can enhance rig operations, it's important to remember that it is not a panacea for rig safety.

Observed North Sea Chapter Chairman **Bob Mankin** of **Maersk Contractors**, "The key to sound safety practices lies in the commitment to and implementation of a solid safety management system.

"Safety is not about the machines," Mr Mankin said. "It's about the people who run them."

The first step in the new study will be to share knowledge with the HSE. Remarked IADC Director-European Offshore Affairs **Dennis Krahn**, "They keep good statistics, they have generous

'Safety is not about the machines. It's about the people who run them'

**—Bob Mankin,
IADC North Sea Chapt Chairman**

funds for research, and they are fair. We need to take advantage of all three."

The chapter will also seek information from North Sea contractors, beginning with a survey of which rigs are mechanized and which are not. MR Krahn said that some members have already done studies on retrofit mechanization and have freely offered IADC the information. The relevant information will be used, with anonymity for the contributors. Since many members also operate rigs in Norway, this will provide an

opportunity to contrast experiences in that market with the UK.

HSE will communicate with rig and equipment designers, Mr Krahn said. "HSE has indicated that they will share their information with us. We'll engage the designers later, on an as needed basis."

The resulting report will aim at providing contractors with data-based guidance in the wisdom of mechanising.

The final report will also assure HSE that the experts in the field, IADC North Sea contractors, have presented them with information they could not have otherwise assembled

Rig designers will gain details about the challenges in developing safer and more workable designs.

IADC's goal, Mr Krahn said, is to deliver wells to operators at as low cost as is reasonably practical. ■

