	CARDINAL SURVEYS COMPANY Safety Management System		Doc No:	RIGGING
			Initial Issue Date	JAN 1995
RIGGING MATERIAL HANDLING			Revision Date:	Initial Version
			Revision No.	02
			Next Revision Date:	N/A
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 1 of 3

Purpose

The purpose of this training program is to ensure a safe and incident free lifting operation in the onshore and offshore environment.

Scope

All CARDINAL SURVEYS COMPANY employees that work onshore or in the Outer Continental Shelf (OCS) are to receive training in "rigging". When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers CARDINAL SURVEYS COMPANY employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

Definitions

Rigging - the art or process of safely attaching a load to a hook by means of adequately rated and properly applied slings and related hardware.

Qualified Rigger - any person who attaches or detaches lifting equipment that has successfully completed training meeting the requirements set forth by American Petroleum Institute's Recommended Practice 2D 5th Edition (API RP-2D 5th Edition).

Outer Continental Shelf - means all submerged lands lying seaward and outside of the area of lands beneath navigable waters beginning three (3) miles from the coastline extending outwards and of which the subsoil and seabed appertain to the United States and are subject to its jurisdiction and control.


Key Responsibilities

Management shall determine if this program is required for regulatory compliance within his/her region. If this program is deemed necessary, then management shall determine which employees within his/her region is required to receive this training. Management shall select a training facility or use an in-house qualified trainer to supply the training.

Supervisors shall assist the managers in the tasks described above. The supervisor shall verify that each of their employees have the proper training before those employees report to duty onshore or on an OCS facility.

Employees shall assist their supervisors in tracking required training and follow safe rigging practices. The employee shall monitor all expiration dates pertaining to his/her required training and notify his/her supervisor in advance of any nearing expiration dates.

Only qualified rigger trained personnel can attach or detach lifting equipment to loads or lifting loads. CARDINAL SURVEYS COMPANY personnel DO NOT neither inspect nor operate offshore cranes.

	CARDINAL SURVEYS COMPANY Safety Management System	Doc No:	RIGGING
		Initial Issue Date	JAN 1995
RIGGING MATERIAL HANDLING		Revision Date:	Initial Version
		Revision No.	02
		Next Revision Date:	N/A
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page: Page 2 of 3

Procedure

General

Only “qualified riggers” are allowed to attach any loads to a lifting hook and only “qualified operators” are allowed to operate a crane while engaged in lifting operations onshore or on the Outer Continental Shelf.

API RP-2D has established a three-tiered classification. Employees will be certified in the applicable classifications as required before starting job assignments requiring rigging and lift operations offshore:


- Qualified rigger.
- Qualified inspector.
- Qualified operator. (CARDINAL SURVEYS COMPANY personnel DO NOT operate offshore cranes.)

Material Handling

- Rigging equipment shall be inspected to ensure it is safe. Rigging equipment for material handling shall be inspected prior to use and on each shift and as necessary during its use to ensure that equipment is safe.
- Defective rigging equipment shall not be used and removed from service.
- Rigging equipment shall not be loaded beyond its recommended safe working load and load identification shall be attached to the rigging.
- Rigging equipment not in use shall be removed from the immediate work area so as not to present a hazard to employees.
- Tag lines shall be used unless their use creates an unsafe condition.
- Hooks on overhaul ball assemblies, lower load blocks, or other attachment assemblies shall be a type that can be closed and locked, eliminating the hook throat opening. Alternatively, an alloy anchor type shackle with a bolt, nut and retaining pin may be used.
- All employees shall be kept clear of loads about to be lifted and of suspended loads. No employee shall be allowed under a suspended load.

Training and Education

A “Qualified Offshore Rigger” shall successfully complete an approved “Rigger” course. To successfully complete an approved “API2D Rigger” course, the CARDINAL SURVEYS COMPANY employee must verify that they have gained knowledge through participating in classroom lectures, participating with hands-on training and then successfully passing a written exam. Once the employee successfully completes the course, a “Rigger” card will be issued to that individual. During the classroom lectures, hands-on training and written exam the CARDINAL SURVEYS COMPANY employee shall display their competency in the following topics:

	CARDINAL SURVEYS COMPANY Safety Management System		Doc No:	RIGGING
			Initial Issue Date	JAN 1995
RIGGING MATERIAL HANDLING			Revision Date:	Initial Version
			Revision No.	02
			Next Revision Date:	N/A
Preparation: Safety Mgr	Authority: President	Issuing Dept: Safety	Page:	Page 3 of 3

- The selection of proper hardware (eye bolts, shackles, hooks, wire rope products, synthetic slings, chain slings, etc) for the correct application (weight, hitches, angles, temperatures, center of gravity, etc.).
- The inspection of the selected hardware before, during and after the lift.
- The proper methods of securing the load, attaching the load to the hook, lifting the load, handling of the load during the movement of the load, and lowering and placement of load.
- The proper storage of the rigging equipment. All CARDINAL SURVEYS COMPANY employees shall re-certify their “qualified rigger” training on a four (4) year basis.