### MMS CRANE REGULATIONS & ACCIDENTS

### Pedestal Crane Safety Workshop & Exhibition November 10, 2004 **Russell Hoshman Minerals Management Service Gulf of Mexico – OCS Region**



### **Regulatory** Authority

- The Minerals Management Service (MMS) is the regulatory body responsible for crane safety and operations on fixed platforms on the Outer Continental Shelf (OCS) of the United States of America.
- The United States Coast Guard (USCG) is the regulatory body responsible for crane safety on Mobile Offshore Drilling Units (MODU) and floating production facilities.



### **Basis for Regulations**

- >MMS Regulations
  - API Recommended Practice (RP) 2D, Fourth Edition
  - API Specification (SPEC) 2C, Fifth Edition
- ➤USCG Regulations
  - API Recommended Practice (RP) 2D, First Edition
  - API Specification (SPEC) 2C, Second Edition



### How Does the MMS want to Regulate Cranes?

- Through API Specification 2C revisions
- Through API Recommended Practice 2D revisions
- Write a new regulation only if MMS is unable to resolve an issue through the API



### HOW ARE REGULATIONS MADE?

- When the need of a new regulation is recognized by the MMS, a "Notice of Proposed Rule Making" is published in the Federal Register outlining the new proposed rule.
- There is a 90-day comment period in which industry can comment on this proposed rule.



### HOW ARE REGULATIONS MADE?

- An industry / government workshop may be held 45 days into the comment period to allow dialog between industry and government.
- A "Final Rule" is then published in the Federal Register. Within the "Final Rule," comments from industry are addressed. Industry comments are either accepted or rejected with a statement why. The "Final Rules" will have an effective date and the industry may be given a grace period to implement the new rule.



### HOW ARE REGULATIONS MADE?

# ➤A new regulation takes from one to five years to implement.



### API & REGULATION

The American Petroleum Institute revises their standards at least once every 5 years.

Each revision of the API document will have to be reviewed to determine if it should be incorporated into a regulation.



### API & REGULATION

- MMS incorporation of a new API Standard revision will have to go through the "Notice of Proposed Rule Making," "Comment Period" and "Final Rule" process.
- To incorporate a new revision into the regulations requires at least 18 months.



WHAT TRIGGERS A CHANGE TO THE STANDARDS OR REGULATION?

Accidents

Changing technology
 Need for consistency
 Need for clarity



## How Many Cranes?

- 2,440 pedestal-mounted cranes on
  4,093 fixed and floating production
  facilities operating in the Gulf of Mexico.
- Daily average of 158 platform rigs and MODUs operating in the Gulf of Mexico 1998 through 2003.

### ➤ Temporary Cranes ????



### Why is the MMS Concerned?

Since 1998, cranes on fixed platforms, MODU's and floating facilities have accounted for

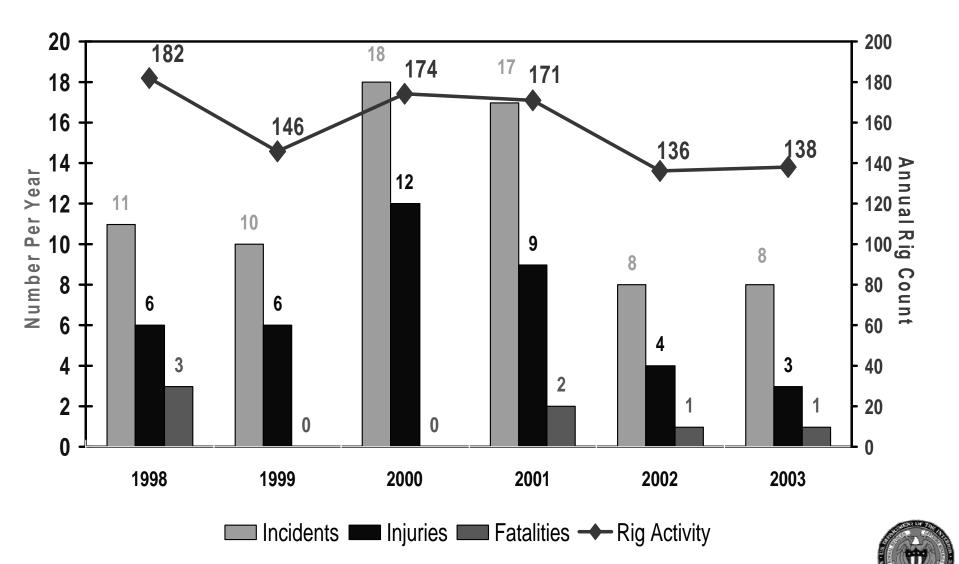
#### 16% of all injuries 17% of all fatalities

in the Gulf of Mexico.

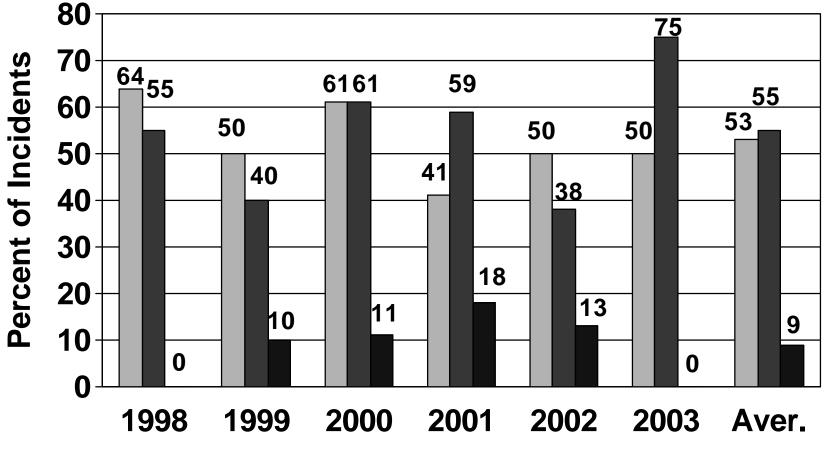




#### All Crane Incidents and Rig Activity in the Gulf of Mexico 1998 – 2003



#### Contributing Factors to Crane Accidents in the GOM



Equipment Failure Human Error Weather



### MMS Crane Work Group

Four crane fatalities in OCS waters in 1998 moved MMS to form a Crane Work Group to review accident trends and make recommended changes in crane policies.







- 1998 The MMS Crane Group identified that a large percentage of crane-related injuries on fixed platforms involved personnel associated with rigging.
- 1999 API revised the API Recommended Practice (RP) 2D (4<sup>th</sup> Edition, August 1999) to include rigger training requirements.
- 2000 MMS incorporated the new edition of API RP 2D into the regulation.







MMS, API and industry sponsored Crane Workshops in 2000, 2001, and 2003 to raise awareness about crane accidents.





- 2003 MMS incorporated the 5<sup>th</sup> Edition of API Specification 2C.
- 2003 MMS require the installation of antitwo block devices on all cranes by March 2005.
- 2003 API revised API RP 2D as the 5<sup>th</sup> Edition, June 2003, to include:
- Crane inspector training
- Positive locking latch on hooks used for personnel transfer
- Deck/structure evaluation for temporary cranes.



- 2004 API revised API SPEC 2C as the 6<sup>th</sup> Edition, March 2004. The dynamic load calculation section was expanded.
- 2004 MMS developed a crane and material handling incident database.
- 2004 MMS developed a standardized list of data for crane accident investigations involving serious injuries and fatalities.



#### August 2004 the MMS drafted a final rule to incorporate API RP 2D 5<sup>th</sup> edition and API SPEC 2C 6<sup>th</sup> edition.



### **MMS Future Actions**

Cosponsoring an API Crane Workshop June 2005 in Houston, Texas.

API RP 2D is currently being revised as the 6<sup>th</sup> edition.



### **MMS Future Actions**

New regulation or revision of API RP 2D to require that all cranes regardless of the date of manufacture have a static as well as a dynamic load chart calculated in accordance with API Specification 2C.

Reviewing a proposed regulation that would require cranes to be load tested once every 5 years.



### Comments / Questions

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OFFSHORE CRANE SAFTY WEBSITE IS LOCATED AT:

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