Focused Facility Review Program and Safety Management

Shannon J. Shaw

Petroleum Engineer

Minerals Management Service

Pacific OCS Region

California District Office

Safety & Environmental Management Program (SEMP)

- Developed to reduce the risk of undesirable events associated with oil and gas operations on the outer continental shelf

- Works to establish a commitment to safety throughout the organization…from platform to boardroom

- Shifts emphasis to performance-based regulations

- Promotes government-industry partnership

Purpose of FFR

- Supplement established MMS inspections

- Promote collaborative analysis efforts

- Facilitate continual improvement in offshore safety

- Emphasize the critical role of human, organizational, and management influences on safety and environmental protection

FFR Matrix Categories

- Facility Condition
- Safety Systems
- Documents
- Training
- Environmental
- Electrical
- Policies/Performance

Supplement Established MMS Inspections

- "Fresh Eyes"

- Observation items are identified instead of INCs…unless immediate threat to safety or environment exists

- Not device oriented

- Concentrates on the system as a whole

- Complements annual and monthly inspections

Promote Collaborative Analysis

- Integrated review team:
    - MMS inspectors, engineers, specialists
    - United States Coast Guard (USCG)
    - Operator's specialists

    - Observers

- Constructive atmosphere

- Provides opportunities for mentoring

- Sharpens interdisciplinary skills

Facilitate Continual Improvement in Offshore Safety by Emphasizing the Critical Role of Human, Organizational, and Management Influences on Safety and Environmental Protection

- Considers technical and human factors
- Encourages improved communication throughout all organizational levels
- Emphasizes safety and environmental protection <u>before</u> production

MMS: Mission

To manage the mineral resources on the Outer Continental Shelf (OCS) in an environmentally sound and safe manner and to collect, verify, and distribute mineral revenues from Federal and Native American lands in a timely manner
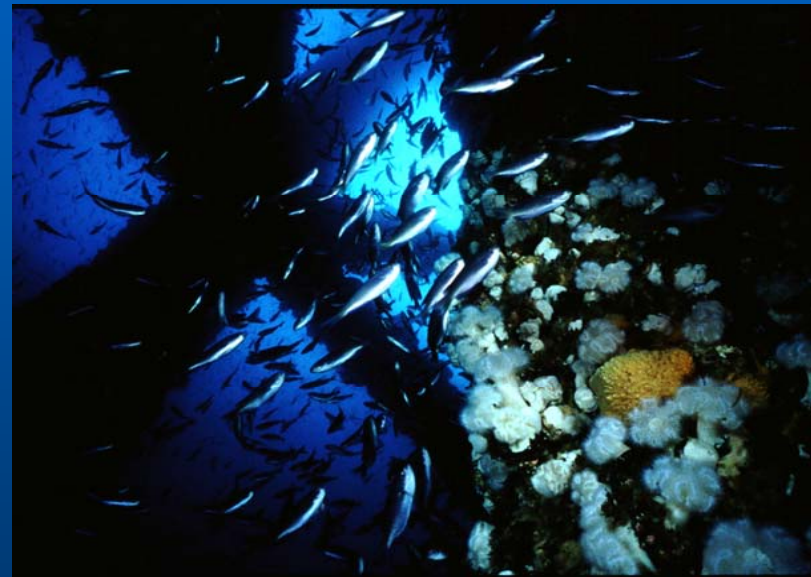
On the U.S. OCS today . . .

- **There are over 8500 active offshore leases; nearly 4000 operating platforms; the deepest of these in more than 1000 meters of water**

- **Yearly production from these facilities is about 500 million barrels of oil and 140 billion cubic meters of gas**

Why We Regulate

- **The law requires MMS to ensure:**
  - safety
  - protection of the environment
  - conservation of resources

President's Executive Order on Regulations (September 1993)

American People Deserve a Regulatory System that:

- *Works for Them/Not Against Them*

- *Protects Health/Environment, Promotes Safety*

- *Does not Impose Unreasonable/Unacceptable Costs on Society*

- *Recognizes Private Sector/Markets as Best Engines for Economic Growth*

Roles of MMS and
The Oil and Gas Lessee

- The lessee is responsible for safety and protection of the environment
- MMS establishes requirements (30 CFR 250)
- The lessee must meet the requirements
- MMS inspects to ensure compliance
- MMS initiates enforcement actions to remedy non-compliance (PINCs)

Inspections

- **Drilling**
- **Production**
- **Completion**
- **Workover**
- **Measurement**

- **Pipeline**
- **Site Security**
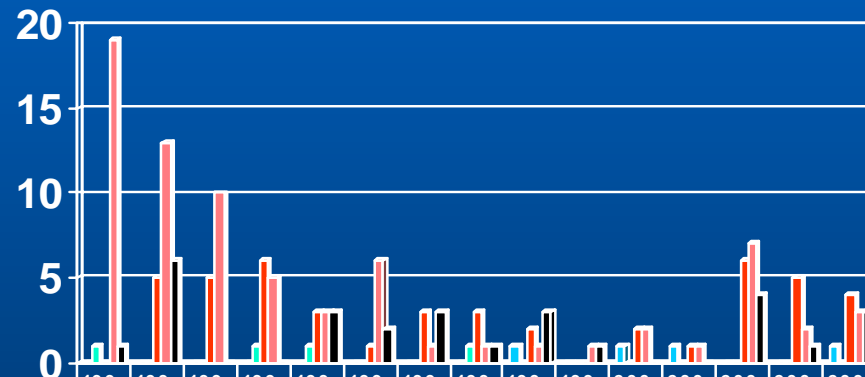- **Pollution**
- **Abandonment**
- **Compliance**

Overall…

MMS inspects approximately 60,000 components (wells, tanks, vessels, compressors, pipelines, pumps, etc.) and generates about 20,000 inspection reports annually

Accidents Reported to MMS for 1990-2004 Pacific OCS Region

Legend: ☐ Blowouts ☐ Fatalities ☐ Fires/Explosions ☐ Injuries ☐ Spills/Other

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Blowouts	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1
Fatalities	1	0	0	1	1	0	0	1	0	0	0	0	0	0	0
Fires/Explosions	0	5	5	6	3	1	3	3	2	0	2	1	6	5	4
Injuries	19	13	10	5	3	6	1	1	1	1	2	1	7	2	3
Spills/Other	1	6	0	0	3	2	3	1	3	1	0	0	4	1	3

Accident Investigations

- Determine Root Causes

- Identify Trends

- Issue Safety Alerts to Prevent Recurrence

- Revise Regulations if Needed

Safety Award For Excellence

- Large Operators

- Small Operators

- Contractors

- Collaboration with MMS on Enhancement of Safety/Environmental Protection

Continuous Communications, Continual Improvement

- **Encourage Open, Two-Way Communications**

- **Annual Performance Review**

  - **Discuss Problems and Share Best Practices**
  - **Feedback for MMS Regulatory Process**
  - **Suggest Remedies for Poor Performance**