MEMORANDUM OF AGREEMENT
BETWEEN THE
MINERALS MANAGEMENT SERVICE – U.S. DEPARTMENT OF THE INTERIOR
AND THE
U.S. COAST GUARD – U.S. DEPARTMENT OF HOMELAND SECURITY

MMS/USCG MOA: OCS-04 Effective Date: 28 February 2008

SUBJECT: FLOATING OFFSHORE FACILITIES

A. PURPOSE

The purpose of this Memorandum of Agreement (MOA) is to identify and clarify responsibilities of the Minerals Management Service (MMS) and the U.S. Coast Guard (USCG) and to provide guidance for the appropriate agency approval of systems and sub-systems for floating offshore facilities. For the purposes of this MOA a floating offshore facility is defined as: 1) a buoyant facility that is permanently or temporarily attached to the seabed of the Outer Continental Shelf (OCS), or 2) that dynamically holds position over the OCS and is attached only via flow-lines, umbilicals or similar connections; these facilities are installed for the purpose of exploring for, developing, producing, transporting via pipeline, storing or processing minerals resources from the OCS. This term includes, but is not limited to, tension leg platforms, spars, semi-submersibles and shipshape hulls. For the purposes of this MOA, the term does not include derrick barges, floatels, tenders, mobile offshore drilling units or floating offshore facilities covered by the Deepwater Port Act which are the primary responsibility of the USCG and the Maritime Administration and regulated under the authority of 33 Code of Federal Regulations (CFR) Subchapter NN – Deepwater Ports.

This MOA updates Section 1 (Communications and Contacts) and replaces parts of Section 7 (Offshore Facilities System/Sub-system Responsibility Matrix) regarding floating offshore facilities of MMS/USCG MOA OCS-01: Agency Responsibilities, dated 30 September 2004. Implementation of this MOA will be in accordance with Section J (Memorandum of Agreements – Development and Implementation) of the Memorandum of Understanding (MOU) between the MMS and USCG, dated 30 September 2004. The participating agencies will review their internal procedures and, where appropriate, revise them to accommodate the provisions of this MOA.

B. STATUTORY AUTHORITIES

The USCG and MMS enter this agreement under authority of Title 14 United States Code (USC) §141 – Coast Guard Cooperation with other Agencies; 43 USC § 1331 et seq. - the Outer Continental Shelf Lands Act (OCSLA); 33 USC § 1321(j) – the Federal Water Pollution Control Act; and the Maritime Transportation Security Act of 2002 as codified in 46 USC, Chapter 701.

Applicable MMS regulations are found at 30 CFR, Subchapter B – Offshore, Part 250 – Oil and Gas and Sulphur Operations in the Outer Continental Shelf.

Applicable USCG regulations are found under 33 CFR, Subchapter N – Outer Continental Shelf Activities, Parts 140-147 and applicable parts of 46 CFR – Shipping and 33 CFR Chapter I, Subchapter H – Maritime Security.

C. JURISDICTION

The MMS, within the U.S. Department of the Interior (DOI), is responsible for managing the nation's natural gas, oil, and other mineral resources on the OCS in a safe and environmentally sound manner. Under the OCSLA and other authorities, the MMS regulates activities such as exploration, drilling, completion, development, production, pipeline transportation, storage, well servicing, and workover activities under its jurisdiction. MMS also grant rights-of-use and easements to construct and maintain facilities, and rights-of-ways for sub-sea pipelines, umbilicals, or other equipment.

The USCG, within the U.S. Department of Homeland Security (DHS), is responsible for protecting the marine environment, promoting the safety of life and property and ensuring security on the OCS. Under OCSLA, 33 CFR Subchapter N - Outer Continental Shelf Activities, and Title 46 USC – Shipping and Title 46 CFR, as well as other authorities, the USCG regulates OCS facilities, mobile offshore drilling units (MODUs) and vessels engaged in OCS activities, including, but not limited to, tank vessels, offshore supply vessels, and other vessels involved in OCS activities or transfers of certain cargoes.

D. AGENCY RESPONSIBILITIES

1. COMMUNICATIONS AND CONTACTS

The participating agencies will identify in writing appropriate representatives for the purposes of keeping each other timely informed of issues, relevant applications, routine policy determinations, and to coordinate joint activities. For the USCG, the Assistant Commandant for Marine Safety, Security and Stewardship is responsible for identifying that representative. For MMS, the Associate Director of Offshore Minerals Management is responsible for identifying that representative.

These representatives will maintain an accurate and updated list of contacts for their respective agency and will make notifications to their counterpart of any changes to agency representatives.

Designation of agency representatives by function:

	USCG	**MMS**
Headquarters	Chief, Vessel & Facility Operating Standards (CG-5222)	MMS Agency Liaison to the Coast Guard

	USCG	MMS
USCG Districts/MMS Regional Offices	**Gulf of Mexico (GOM):** D8 Chief of Prevention **Alaska:** D17 Chief of Prevention **California:** D11 Chief of Prevention	**GOM:** GOM Regional Supervisor for Field Operations **Alaska:** Alaska OCS Regional Supervisor for Field Operations **California:** Pacific OCS Region Chief, Office of Facilities, Safety, and Enforcement
USCG Sector/Marine Safety Units (MSUs)/ MMS Districts	Officer in Charge, Marine Inspection (OCMI) at: **GOM:** Sector Mobile Sector New Orleans MSU Morgan City MSU Port Arthur Sector Houston/Galveston Sector Corpus Christi **Alaska:** Sector Anchorage **California:** Sector Los Angeles/Long Beach	District Manager at: **GOM:** New Orleans District Houma District Lafayette District Lake Charles District Lake Jackson District **Alaska:** Alaska OCS Regional Supervisor for Field Operations **California:** California District

2. Floating Offshore Facility System/Sub-System Responsibility Matrix

The table provided in Annex 1 of this MOA lists the lead agency for systems and sub-systems associated with floating OCS facilities to include, but not limited to, floating production storage (FPS) and floating production storage and offloading (FPSO) units. Other agency roles are identified where applicable. The lead agency is responsible for coordinating with the other agency as appropriate.

E. General Provision

Nothing in this MOA alters, amends, or affects in any way, the statutory authority of the MMS or the USCG. This MOA cannot be used to obligate or commit funds or as the basis for the transfer of funds. All provisions in this MOA are subject to the availability of personnel and funds. The MOA is not intended to, nor does it, create any right, benefit, or trust responsibility, substantive or

procedural, enforceable at law or equity by any person or party against the United States, its agencies, its officers, or any other person. This MOA neither expands nor is in derogation of those powers and authorities vested in the participating agencies by applicable law. It is the intent of the parties that the MOA remain in force even if a portion of it is determined to be unlawful, provided the remaining portion can be read coherently and understood.

F. AMENDMENTS TO THE MOA

This MOA may be amended by mutual agreement of the participating agencies as described in Section J of the MMS/USCG MOU dated 30 September 2004.

G. TERMINATION

The MOA may be terminated upon a 30-day advance written notification.

Chris C. Oynes
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Offshore Minerals Management
Minerals Management Service
U.S. Department of the Interior

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ANNEX 1

FLOATING OFFSHORE FACILITY SYSTEM/SUB-SYSTEM RESPONSIBILITY MATRIX

This table lists the lead agency for system and sub-systems associated with floating OCS facilities. Other agency roles are identified where applicable. The lead agency is responsible for coordinating with the other agency as appropriate.

Color Code
MMS is the responsible agency
USCG is the responsible agency
MMS/USCG or USCG/MMS have joint responsibilities (Note: Lead agency is stated first)

Item	System	Sub-System	Responsible Agency	Other Agency Role(s) and Comments
1	**Design & Operating Overview/Plan**			
1.a		Deepwater Operations Plans/New Technology Document where applicable	MMS	See applicable section on System Description/Components at end of table.
1.b		Design Basis Document	USCG	See applicable section on System Description/Components at end of table.
1.c		Platform Verification Program (PVP).	MMS	Includes the nomination of a Certified Verification Agent (CVA).See applicable section on System Description/Components at end of table.
2	**Unit Design, Fabrication, Installation, Modifications and Repairs**			
2.a		Non-ship shape hull	USCG/MMS	All design, fabrication, and installation activities of all non-ship-shape floating facilities will be reviewed by both agencies.
2.b		Ship-shape hull	USCG/MMS	USCG - All aspects of the design and fabrication of ship-shape floating facilities will receive review.
				MMS may require a CVA for the hulls of moored or dynamic positioned units
2.c		Top side structures	USCG/MMS	USCG-Responsible for structures relating to marine systems, lifesaving equipment, accommodations, crane foundations, and other appurtenances.
				MMS-Responsible for all structural components related to drilling, production, completion, well servicing and workover operations.
2.d		Turret and turret/hull interface structure	MMS/USCG	USCG and MMS will each review the design of the turret and turret/hull interface structure for all floating facilities.
2.e		Design met-ocean conditions	MMS/USCG	MMS establishes site specific design met-ocean criteria.
				USCG establishes design met-ocean criteria for intact and damage stability.

2.f		Risers (drilling, production, and pipeline)	MMS	Pipeline risers may be subject to jurisdiction of the U.S. Department of Transportation (DOT), Pipeline and Hazardous Materials Safety Administration (PHMSA) as defined in the 1996 DOT/DOI Pipeline Memorandum of Understanding (MOU) on Outer Continental Shelf (OCS) Pipelines.
3	**Floating Stability**			
3.a		Non-ship- shape floating facilities	USCG	USCG reviews and approves stability and sends copies to MMS.
3.b		Ship-shape floating facilities	USCG	USCG reviews and approves stability and sends copies to MMS.
4	**Station Keeping**			
4.a		Foundations	MMS	
4.b		Mooring and tethering systems	MMS/USCG	MMS is responsible for site specific mooring analyses. Both agencies will review synthetic mooring applications.
4.c		Design of dynamic positioning systems	USCG	
4.d		Operation of dynamic positioning systems	USCG/MMS	MMS is responsible for criteria for shut-in and disconnect when out of the watch circle. USCG mandates all other operational criteria.
5	**Drilling, Completion, Well Servicing & Workover Operations**			
5.a		See applicable section at end of table on System Descriptions/Components.	MMS	
6	**Production Systems**			
6.a		See applicable section at end of table on System Descriptions/Components.	MMS	
6.b		Produced hydrocarbons, fuel and flow assurance fluid tanks	MMS	All tanks outside of the hull of the unit
			USCG	All tanks inside of the hull of the unit
7	**Pipeline Operations and Components**			
7.a			MMS	Pipelines may be subject to jurisdiction of DOT, PHMSA as defined in the 1996 DOT/DOI MOU on OCS Pipelines.
8	**Offloading Equipment & Procedures**			
8.a			USCG	MMS – To first discharge manifold. USCG has lead on all other units. See diagram at applicable section at end of table for System Descriptions/Components
9	**Utility Systems**			
9.a		Boilers, pressure vessels, waste heat recovery systems (from any engine exhaust), water heaters and other piping or machinery	USCG	Listed equipment/systems associated with the unit's emergency and ship-service systems only.
			MMS	Listed equipment/systems supporting drilling, production, completion, well servicing and workover operations, such as waste heat or steam generation.

9.b		High pressure (HP) washdown	USCG	Listed equipment/systems associated with the unit's emergency and ship-service systems only.
			MMS	Listed equipment/system components and piping supporting drilling, production, completion, well servicing and workover operations.
9.c		Seawater supply	USCG	Includes sea chests and sea chest values supplying water to such systems as ballast system, fire main system and engine cooling system.
9.d		Compressed air	USCG	Listed equipment/systems associated with the unit's emergency and ship-service systems only.
			MMS	Listed equipment/system components and piping supporting drilling, production, completion, well servicing and workover operations.
9.e		Potable wash and sanitary water	USCG	
9.f		Sewage unit & piping	USCG/MMS	USCG - All hardware and associated equipment
				MMS-NEPA and EPA; Discharge permits
9.g		Diesel fuel systems	USCG/MMS	USCG is responsible for diesel fuel systems related to marine systems, lifesaving equipment, accommodations, and cranes.
				MMS is responsible for all diesel fuel systems related to drilling, production, completion, well servicing and workover operations.
9.h		Bilge & ballast, including pumps, and related control systems	USCG	
9.i		Fuel gas from well	MMS	When powering drilling, production, completion, well servicing and workover operations.
			USCG	Down-stream of the prime movers emergency cutoff valve when powering emergency and ship-service systems only.
10	**Elevators for Personnel**			
10.a			USCG	
11	**Helicopter Landing and Refueling**			
11.a		Decks, fuel handling, and storage	USCG	
12	**Fire Safety Equipment and Systems**			
12.a		Fire protection, detection, and extinguishing	USCG	See applicable section on System Descriptions/Components at end of table.
12.b		Structural fire protection for accommodations	USCG	See applicable section on System Descriptions/Components at end of table.
13	**Safety Systems**			
13.a		Emergency shut-down (ESD) systems and components	MMS	For MMS required systems.
13.b		Remote shut-down devices	USCG	All remote stopping devices required for USCG-regulated systems.
13.c		Gas detection systems and components	MMS	

13.d		All safety systems and components associated with drilling, production, completion, well servicing and workover operations, including, but not limited to the control of the well.	MMS	
13.e		General alarm	USCG	Includes public address system when integrated with general alarm system
14	**Electrical Design & Equipment**			
14.a		Production	MMS	See item 6 on System Description/Components at end of table.
14.b		Systems solely dedicated to drilling, completion, well servicing and workover operations	MMS	See item 5 on System Description/Components at end of table. This includes both permanent equipment and equipment installed for a finite time and designed for removal (temporary equipment).
14 .c		Systems sharing power with both ship-services and drilling, completion, well servicing and workover operations.	USCG/MMS	Systems dedicated solely to ship-services are the responsibility of USCG.
14.d		Emergency lighting power generation and distribution	USCG	
14.e		Hazardous areas classification	USCG/MMS	MMS and USCG will use industry standards, where applicable to minimize duplication of effort for industry.
15	**Aids to Navigation**			
15.a			USCG	
16	**Communications**			
16.a			USCG	
17	**Pollution Prevention**			
17.a		Pollution not associated with vessel transfers	USCG	Garbage, maintenance waste and plastics per the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78)
17.b		Petroleum and other product transfers to and from a vessel (includes offloading of produced hydrocarbons)	USCG	
17.c		All floating facilities while in transit or off station	USCG	
17.d		All floating facilities on station or moored	MMS/USCG	MMS - All oil production related equipment (See item 5 – Drilling, Completion, Well Servicing and Well Workover; and Item 6 – Production Systems); but excluding oil storage tanks on FPSOs or similar units USCG - All other equipment and oil storage tanks on FPSOs or similar units
18	**Cranes and Material Handling Equipment**			
18.a		Crane design, certification, and operations	USCG	
18.b		Material handling equipment solely dedicated to drilling, completion, well servicing and workover operations.	MMS	

18.c		Material handling equipment dedicated solely to ship-services, lifesaving, marine system maintenance etc.	USCG	
18.d		Lifting and hoisting equipment associated with the derrick.	MMS	
19	**Ventilation**			
19.a		Areas dedicated to drilling, completion, production, well servicing and workover operations.	MMS	
19.b		Drilling fluid handling areas.	MMS/USCG	
19.c		All other areas	USCG	
20	**Lifesaving Equipment**			
20.a			USCG	
21	**Workplace Safety and Health**			
21.a		Personnel protection equipment and operations.	USCG	
21.b		Hazardous material storage & handling (other than produced hydrocarbons)	USCG	
22	**Living Quarters and Accommodation Spaces**			
22.a			USCG	Includes permanent and portable units design & arrangement.
23	**General Arrangements**			
23.a		Physical location and type of all spaces including access/egress & means of escape.	USCG	
24	**Inspections, Drills and Operational Requirements**			Supplements list of above mentioned systems.
24.a		Structural inspection requirements	MMS	Inspects all structural components related to drilling, production, completion, well servicing and workover operations. This would include all required structural assessments after a severe weather event.
			USCG	Responsible for all inspections of the hull and structures relating to marine systems, lifesaving, accommodations, crane foundations, and other appurtenances.
24.b		Manning requirements for marine operations.	USCG	
24.c		Drills – fire and abandon	USCG	
24.d		Inspection and testing of drilling, production, completion, well servicing and workover operations.	MMS	
24.e		Well control, oil spill and hydrogen sulfide (H_2S) drills	MMS	Oil spill drills for drilling, completion, production, well servicing and well workover components.

24.f		Inspection and testing of marine and lifesaving equipment	USCG	
24.g		Well-head, template, associated equipment & facility and well removal (decommissioning)	MMS	
24.h		Diving operations & equipment	USCG	
25	**Plans**			
25.a		Emergency evacuation plans	USCG	
25.b		Safe welding, burning and hot tapping plans	MMS	
25.c		H_2S contingency plan (including equipment, control, personnel training and detection systems)	MMS	Includes H_2S personnel protection equipment.
25.d		Security Plan if applicable	USCG	
25.e		Safety plan, fire control or fire equipment, and lifesaving equipment plans	USCG	
25.f		USCG required operations manual	USCG	
25.g		MMS Deepwater Operations Plans (DWOP)	MMS	
25.h		Oil Spill Response Plan	MMS	Covers all oil production related equipment (See Item 5 – Drilling, Completion, Well Servicing and Well Workover; and Item 6-Production Systems);pipelines, fuel sources supporting drilling, completion, production, well servicing and well workover; but excluding oil storage tanks on FPSOs or similar units. See 30 CFR 254 for specific plan requirements.
25.i		Vessel Response Plan	USCG	Covers all other equipment, fuel sources, and oil storage tanks, whether above or below deck on FPSOs or similar units. To be submitted 60 days prior to planned operations as per 33 CFR 155.1065(a). See 33 CFR 155 subpart D for specific plan requirements.
25.j		Mooring Inspection Maintenance Repair Replacement Plan	USCG/MMS	Must be submitted anytime a company wants to use synthetic moorings. It is submitted to both MMS and USCG and is a joint approval. The USCG writes the approval letter with MMS comments.
25.k		Design Verification Plan	MMS	Applies to the MMS's Platform Verification Program to include nomination of a CVA
25.l		Fabrication Verification Plan	MMS	Applies to the MMS's Platform Verification Program to include nomination of a CVA
25.m		Installation Verification Plan	MMS	Applies to the MMS's Platform Verification Program to include nomination of a CVA

26	**Turret Operations**			
26.a		Quick-disconnectable turrets and associated buoys	MMS/USCG	
26.b		Non-readily disconnectable turrets and buoys associated with mooring and conventional risers	MMS/USCG	Buoys acting as part of the mooring system
26.c		Non-readily disconnectable turrets and buoys associated with conventional risers	MMS	No mooring associated with buoys, only with riser system
27	**Investigation - Lead Responsibility**			
27.a		Incidents involving systems that the USCG has responsibility for under this MOA	USCG	See MMS/USCG MOA OCS-02 for Civil Penalties; MMS/USCG MOA OCS-03 for Oil Discharge Planning, Preparedness and Response and MMS/USCG MOA OCS-05 for Incident Investigation.
27.b		Incidents involving systems that the MMS has responsibility for under this MOA	MMS	See MMS/USCG MOA OCS-02: Civil Penalties; MMS/USCG MOA OCS-03: Oil Discharge Planning, Preparedness and Response and MMS/USCG MOA OCS-05: Incident Investigation.
28	**Administer Shutdown or Resumption of Operation of a Facility**			
28.a			MMS	See Section D.10 – Abatement - MMS/USCG MOA OCS-3: Oil Discharge Planning, Preparedness and Response
29	**Safety Analysis**			
29.a		Safety analysis of industrial systems	MMS	

System Descriptions/Components

Item 1. Design and Operating Overview/Plan

1.a Deepwater Operations Plans – MMS

A. Conceptual Plan – General Design Basis and Philosophy

1) An overview of the development concept(s),
2) A well location plat.
3) System control type – direct hydraulic or electro- hydraulic, and
4) Distance from each well to the host platform.

B. Deepwater Operations Plans (DWOP)

1) Description and schematic of typical wellbore, casing and completion,
2) Structural design, fabrication and installation information for each surface system,
3) Design, fabrication and installation information for the mooring systems,
4) Information on any active station keeping systems,
5) Information on the drilling and completion systems,
6) Design and fabrication information for each riser system,

7) Pipeline information,
8) Information on the design, fabrication and operation of any offtake systems,
9) Information on subsea wells and associated systems,
10) Flow schematics and Safety Analysis Function Evaluation of the production system,
11) A description of the surface/subsea safety system and emergency support systems,
12) A general description of the operating procedures,
13) A description of the facility installation and commissioning procedures,
14) A discussion of any new technologies proposed, and
15) A list of any alternative compliance procedures or departures proposed.

C. New Technology Document

1) A discussion of any new technologies proposed, and
2) A list of any alternative compliance procedures or departures proposed.

1.b Design Basis Document - USCG

1) Description of the facility and its configuration,
2) Design methodology, including method of analysis, design codes and regulatory, requirements and environmental criteria and loading,
3) Design overview of primary structure and, if applicable, the tendons and mooring systems,
4) Design overview of electrical and control systems,
5) Design overview of marine and utility systems,
6) Design overview of fire-protection, lifesaving equipment and safety systems,
7) Design overview of the in-service inspection plan for the hull and tendons, including philosophy, methodology and drawings of areas to be inspected,
8) Intact and damage stability calculations and, for TLPs, include the tendon-attached mode,
9) Description of any unique design aspects that alleviate the negative consequences of damage stability scenarios, facilitate safe operations or enhance maintenance and inspection requirements, and
10) For converted facilities, a summary of previous service, certifications and classification status and an overview of any structural modifications proposed.

1.c Platform Verification Program – MMS

A. Design Verification Plan

1) Documentation of the design including location plat, site specific geotechnical report, contract design drawings and met-ocean data,
2) Abstract of computer programs used for analysis and a
3) Summary of major design considerations and approach needed for verification.

B. Fabrication Verification Plan

1) Approved for fabrication drawings and material specifications,
2) Material traceability procedures, and
3) A summary description of structural/fabrication specifications, tolerances, quality assurance, material quality controls/placement methods and methods/extent of NDE testing.

C. Installation Verification Plan

1) Summary description of planned marine operations,
2) Contingencies considerations,
3) Alternative course of action, and
4) An identification of areas to be inspected, specifying acceptance and rejection criteria.

Item 5. Drilling, Completion, Well Servicing and Workover Operations:

1) Drilling, production, and workover riser,

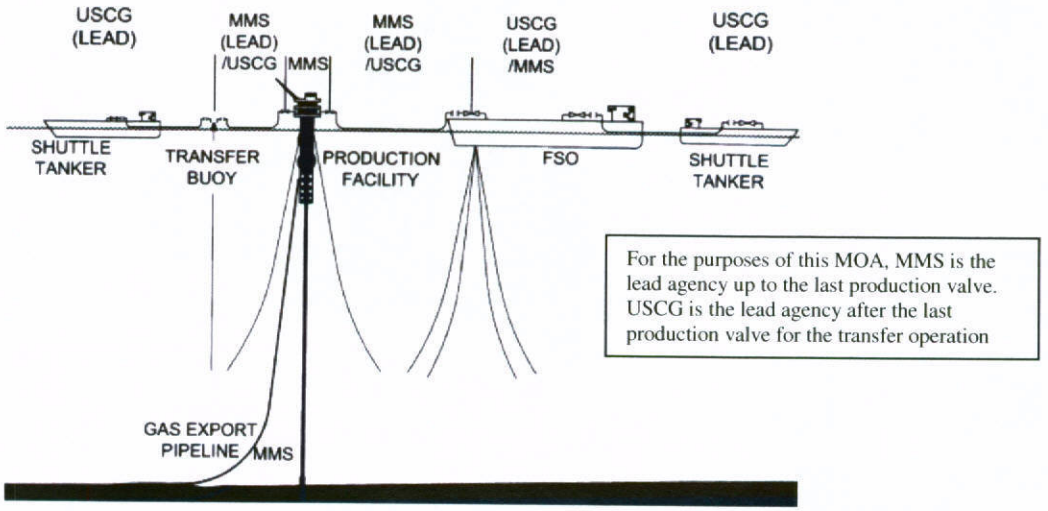
2) Blowout prevention equipment and control systems,
3) Drilling system and related relief valves, vent system, pressure vessels and pipeline, pumps, water systems, and safety systems,
4) Riser and guideline tensioning systems,
5) Motion compensating systems,
6) Instruments and controls,
7) Atmospheric vessels and piping,
8) Fitness of the drilling unit,
9) Lifting and hoisting equipment associated with the derrick,
10) Cementing systems and related equipment,
11) Circulating systems and related equipment, including: pipes and pumps for drilling fluids, workover and well servicing fluids, shale shakers, desanders, degassers and related equipment,
12) Structures including derrick and sub-structure,
13) Bulk material storage and handling systems, and
14) Other pressurized systems designed for industrial operations.

Item 6. Production Systems

1) Hydraulic and pneumatic systems,
2) Pipeline risers,
3) Production safety systems including subsurface and surface safety valves,
4) Relief valves, relief headers, vent and flare systems,
5) Production wells and wellhead,
6) Instrumentation, controls, and measurement (including oil and gas),
7) Gas compression,
8) Process system and related pumps,
9) Odorization for gas piped into enclosures,
10) Process system and related pressure vessels and piping,
11) Process system and related heat exchangers, including waste heat recovery units,
12) Chemical injection and treatment systems, and
13) Metering systems.

Item 8. Offloading Equipment and Procedures

1.a Lead Agency Diagram



Item 12. Fire Safety Equipment and Systems

1) Deluge systems in the well bay area,
2) Firewater pumps, piping, hose reel and monitor equipment,
3) Foam extinguishing equipment,
4) Fixed gaseous extinguishing equipment (carbon dioxide (CO_2) and halon alternatives),
5) Fixed water mist extinguishing equipment,
6) Portable and semi-portable extinguishers, and
7) Fire and smoke detection (excludes interfaces to MMS regulated safety systems).