UNITED STATES DEPARTMENT OF THE INTERIOR MINERALS MANAGEMENT SERVICE GULF OF MEXICO REGION

ACCIDENT INVESTIGATION REPORT

1.	OCCURRED	8.	CAUSE: EQUIPMENT FAILURE	
	DATE: 23-FEB-2004 TIME: 1400 HOURS		Human Error	
2.	OPERATOR: Forest Oil Corporation		EXTERNAL DAMAGE	
	-		SLIP/TRIP/FALL	
			WEATHER RELATED	
	REPRESENTATIVE:		LEAK	
	TELEPHONE:		UPSET H20 TREATING	
3.	LEASE: G02688		OVERBOARD DRILLING FLUID	
	AREA: HI LATITUDE:		X OTHER Gas Migration	
	BLOCK: A 467 LONGITUDE:	9.	WATER DEPTH: 187 FT.	
4.	PLATFORM: A	10.	DISTANCE FROM SHORE: 93 MI.	
	RIG NAME	11.	WIND DIRECTION: NW	
	NIO WAND		SPEED: 1 M.P.H.	
5.	ACTIVITY: EXPLORATION (POE)	12.	CURRENT DIRECTION:	
	DEVELOPMENT/PRODUCTION		SPEED: M.P.H.	
_	(DOCD/POD)	13.	SEA STATE: FT.	
ь.	TYPE: FIRE EXPLOSION			
	☐ BLOWOUT	16.	OPERATOR REPRESENTATIVE/	
	COLLISION		SUPERVISOR ON SITE AT TIME OF INCIDENT:	
	INJURY NO0			
	FATALITY NO0		CITY: STATE:	
	POLLUTION		THE ROMAN	
	OTHER		TELEPHONE:	
7.	OPERATION: X PRODUCTION		CONTRACTOR: Woodgroup Production Services	
	DRILLING			
	WORKOVER		CONTRACTOR REPRESENTATIVE/	
	COMPLETION		SUPERVISOR ON SITE AT TIME OF INCIDENT:	
	MOTOR VESSEL		CITY: STATE:	
	PIPELINE SEGMENT NO.		_ TELEPHONE:	
	OTHER			
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17. DESCRIBE IN SEQUENCE HOW ACCIDENT HAPPENED:

The compressor failed to start (4-5 times). When the compressor fails to start, HP gas is vented to flair, LP gas is vented to the low pressure vent line, which is common to the skimmer tanks installed below the MCC room. Gas migrated from the skimmer atmosphere along the structure beams and up through the opening in the deck where the power cables and conduit enter the MCC room from below. The gas detector alarmed with 20% LFL and the door was opened to ventilate the gas. The gas was trapped in the electrical panels and the pump relay opened or closed providing spark, exploding gas and blowing out the doors, panel doors, light fixtures, and building walls. The employee was blown fifteen feet out of the door.

18. LIST THE PROBABLE CAUSE(S) OF ACCIDENT:

Low pressure gas vented into common venting going to the skimmer, released to atmosphere and migrated into the MCC room from below, through opening (approximately four inches in diameter) into the MCC room and was ignited by an automated switch or relay. The door was opened, causing a chimney efect, sucking more gas into the MCC room. The percentage of gas in the electrical panel was probably well above the LFL than in the room.

19. LIST THE CONTRIBUTING CAUSE(S) OF ACCIDENT:

Failure to install FSV at the water skimmer to prevent blow-down gas from venting at the atmospheric vent on the skimmer. Additionally, failute to seal all cable and conduit passages into the MCC room. Failure to survey, identify, and seal all penatrations into MCC room.

20. LIST THE ADDITIONAL INFORMATION:

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21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

Switch gear panel doors, light fixtures, Explosion and severe damage to the building walls. (blown outward aprox. 4" all the way around MCC room)

Amount of damage approximately \$10,000.00 and \$15,000.00 to \$20,000.00 in upgrades.

ESTIMATED AMOUNT (TOTAL):

\$10,000

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

This District recommends that a Safety Alert be distributed to all operators stating the following:

Seal all openings and penetrations into the MCC rooms to prevent gas migration.

Re-pipe low pressure blowdown discharge from compressor, or install flow safety valve in the low pressure vent line between the blowdown line and the atmospheric water skimmer to prevent gas from discharging at the atmospheric vents on the skimmer.

Facilities should have audits or be checked for penetration into buildings, living quarters, and MCC rooms to verify that gas cannot migrate into these areas.

- 23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: YES
- 24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

F-108 Electrical installations not in accordance with API RP 14F. All penetrations not sealed as per API RP 14F: TO PREVENT GAS MIGRATION into MCC room.

25. DATE OF ONSITE INVESTIGATION:

27-FEB-2004

26. ONSITE TEAM MEMBERS:

Jim Hail / Kassim Kassim /

29. ACCIDENT INVESTIGATION PANEL FORMED: NO

OCS REPORT:

30. DISTRICT SUPERVISOR:

Pausina for Smith

APPROVED

DATE: 07-MAY-2004

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FIRE/EXPLOSION ATTACHMENT

SOURCE OF IGNITIO	N: MCC room / relay s	witch	
TYPE OF FUEL:	X GAS OIL DIESEL CONDENSATE HYDRAULIC OTHER		
FUEL SOURCE: Ga	s migration from water	skim	mer
TYPE OF FIREFIGHT	ING EQUIPMENT UTILIZE	D:	HANDHELD WHEELED UNIT FIXED CHEMICAL FIXED WATER NONE OTHER
	TYPE OF FUEL: FUEL SOURCE: Ga: WERE PRECAUTIONS KNOWN SOURCES OF	TYPE OF FUEL: X GAS OIL DIESEL CONDENSATE HYDRAULIC OTHER FUEL SOURCE: Gas migration from water WERE PRECAUTIONS OR ACTIONS TAKEN TO I KNOWN SOURCES OF IGNITION PRIOR TO THE	OIL DIESEL CONDENSATE HYDRAULIC OTHER FUEL SOURCE: Gas migration from water skim WERE PRECAUTIONS OR ACTIONS TAKEN TO ISOLATE KNOWN SOURCES OF IGNITION PRIOR TO THE ACCII TYPE OF FIREFIGHTING EQUIPMENT UTILIZED:

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