

Safety Alert

MMS

U.S. Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region

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Compressor Explosion

Two contract employees were burned by hot oil when a compressor exploded during startup procedures. The main compressor was shut in for an estimated three hours for maintenance while the number 2 compressor was on-line. When the operator began to have trouble with the number 2 compressor they decided to start the number 1 compressor to help with the load. The operator rolled the engine over and then attempted to crank the compressor. The unit tried to fire off but failed. The unit then backfired causing the operators to shut off the air and fuel supply. Almost immediately an explosion occurred blowing off the number 1 compressor crankcase door. Oil was blown out hitting the wall and window of the compressor building. The wall and window redirected the hot oil onto the two operators standing at the front of the compressor, burning them both.

MMS recommends the following:

- Lessees and Operators should inspect compressor units to ensure they are fitted with flame-arresting explosion relief valves of the proper size and access covers of sufficient strength to withstand internal pressure of up to 30 psi.
- Lessees and Operators should ensure compressors do not have iron, aluminum or magnesium covers which cannot withstand explosion pressure.
- It is critical that engines and compressors be equipped with the proper covers and proper relief valves.
- Contact the manufacturer if in doubt for specific recommendations/safety alerts for the proper access doors and relief valves for your equipment.

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