



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

Notice No. 143

August 15, 1985

Compressor Fire During Maintenance Operation

When a mechanic inspecting a roughly running compressor engine disconnected a spark plug wire to check the ignition system, an arc from the disconnected wire ignited gas leaking from a 2-inch pipe union in the gas starter exhaust piping. The fire was extinguished quickly with no injury to personnel and damage limited to a couple of burned spark plug wires.

The operator determined that the pipe union had vibrated loose and allowed the gas to escape. Further investigation revealed that a worn trim-and-seat in the starter valve allowed a continuous supply of gas to be exhausted.

To prevent a recurrence of this type of accident, the operator is taking the following actions:

1. The gas exhaust from the starter will be repiped. Flexible steel hose will be used near the compressor to minimize vibration. Rigid pipe will be used farther away from the compressor where the connection(s) can be readily tightened.
2. The trim-and-seat of the starter valve will be replaced to ensure positive gas shut off.
3. The ignition system will be modified to include check switches that will allow checking of the ignition system without presenting a spark.