**UNITED STATES DEPARTMENT OF THE INTERIOR**
**GEOLOGICAL SURVEY**
**GULF OF MEXICO AREA**

NTL No. 72-9 September 22, 1972

NOTICE TO LESSEES AND OPERATORS

The attached OCS Operations Safety Alert notice is the first of such notices which will be issued to inform lessees and operators of potentially hazardous situations and to point out any corrective action that may be appropriate. This notice which pertains to a fire from a liquid phase heat transfer unit is issued for information only and should not be construed as a requirement. Comments pertaining to this notice and the OCS Operations Safety Alert program are requested.

[signed] Robert F. Evans
Area Oil and Gas Supervisor

Notice No. 1
September 22, 1972

**GEOLOGICAL SURVEY**
**GULF OF MEXICO AREA**
**OFFICE OF THE OIL AND GAS SUPERVISOR**

OCS OPERATIONS SAFETY ALERT

**Flash Fire from Liquid Phase Heat Transfer Unit**

A flash fire occurred in the production facilities of a producing platform in OCS waters directly resulting from the ignition of fluid from the heat transfer unit.

The liquid phase heat transfer system was being used for heating oil to separate water through a chemical-electric treater. It was also to be used as the heating medium for the glycol system to separate water from gas but that system was not in operation.

The incident occurred as the production facilities were being put back into service after being shut-down by the low pressure sensor on the departing oil flowline. Overheating of the heat transfer fluid was caused by the chemical circulating pumps not operating while the main burner valve was in operation. This resulted in a rapid pressure increase and expansion of the heat transfer fluid which ruptured the top of the expansion tank allowing the fluid to spill over the heater and deck area. Ignition of the fluid occurred shortly afterwards.

Results of the investigation indicate that the following steps should be taken in order to prevent this type of failure:

1. Heat transfer fluid expansion tanks should be equipped with a large secondary relief valve which should be operationally tested monthly and before each start-up.

2. Control mechanism should be installed to prevent the main burner fuel valve from operating when the chemical circulating pumps are not operating.

3. Expansion tanks should be pressure-rated vessels constructed to withstand pressures exceeding the normal operating pressure range.

4. Heat sensors should be installed immediately downstream of the firebox and be in continuous service.

[signed] Robert F. Evans
Area Oil & Gas Supervisor