

**Market:** Oil and Gas  
**Date:** November 15, 2019  
**TO:** All FGS Regional Managers & Field Technicians  
**RE:** NOV FGS guidelines for Hot Oil Treatment for Paraffin Build-up  
**Products:** All high-pressure jointed fiberglass and spoolable Fiberspar LinePipe products

The maximum exposure temperature shall NOT exceed the following:

- Anhydride may be hot oiled up to 180 F (82 C) at 50% of standard (label) pressure rating;
- Aliphatic Amine may be hot oiled up to 200 F (93 C) at 50% of standard (label) pressure rating;
- Aromatic Amine may be hot oiled up to 210 F (99 C) at 50% of standard (label) pressure rating;
- Fiberspar LinePipe products (E and X series) may be hot oiled up to 180 F (82 C) at up to 50% of label pressure rating.

***NOTE: Caution must be used when hot oil treatment is done on fiberglass lines, which are used in CO<sub>2</sub> flooded fields for transporting fluids containing large amounts of CO<sub>2</sub>. Gas will permeate and saturate the composite pipe walls. A large temperature increase during hot oil treatment can expand trapped gas volumes, which could potentially result in blistering of the inner pipe surface. If such occurrences continue to take place, this could gradually deteriorate the pipe integrity over time potentially leading to premature pipe failures.***

GUIDELINES:

- It is a good practice to minimize temperature and increase exposure time rather than increasing the temperature.
- Establish circulation of the hot oil in the line at the lowest temperature possible. Once the temperature is established, the temperature can be brought up gradually to maximum temperature at pressure equal to or less than the maximum allowable hot oiling pressure of the pipe product (see above).
- If additional higher exposure temperature above the maximum recommended value is required, consult NOV Fiber Glass Systems for review and approval as the line could be damaged.
- DO NOT EXCEED MAXIMUM OPERATING PRESSURE (MOP) OF THE LINE