

Overview of proposed amendments to

Part 23: Oil and Gas **Section 23.14, Pumps**

Section 23.14 (4) is not meant to apply to pumping wellheads because a wellhead has been determined to be a de facto valve. Section 23.14 (4) requires a pressure relief device to be installed on the discharge side of a positive displacement pumps but does not specify that this does not apply to pumping wellheads. It is proposed that the requirement in this section be changed with an insert "Except for pumping wellheads", and that new section 23.14 (5) be added to require safe practices at the wellhead, as section 23.14 (4) no longer applies to pumping wellheads.

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PART 23: OIL AND GAS

- Pumps** **23.14** (1) A positive displacement pump and attachments must have valves, pipes and fittings capable of withstanding the pump's maximum working pressure.
- (2) A quick closing type valve must not be used on the discharge line of a positive displacement pump.
- (3) A positive displacement pump must be protected against freezing.
- (4) **Except for a pumping wellhead**, A pressure relief device must be installed on the discharge side of a positive displacement pump, but a valve must not be installed between them.
- (5) **For a wellhead utilizing a down-hole positive displacement pump, the employer must implement measures to prevent the pump from causing pressures exceeding the pressure rating of the system.**
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Explanatory note

Section 23.14 (4) is not meant to apply to pumping wellheads because a wellhead has been determined to be a de facto valve. Section 23.14 (4) requires a pressure relief device to be installed on the discharge side of a positive displacement pumps, but does not specify that this requirement does not apply to pumping wellheads. It is proposed that the requirement in this section be changed with an insert "Except for pumping wellheads", and that new section 23.14 (5) be added to require safe practices at the wellhead, as section 23.14 (4) no longer applies to pumping wellheads.

Proposed guideline G23.14(5) Pressure control measures at pumping wellheads

Regulatory excerpt

Proposed section 23.14(5) states:

For a wellhead utilizing a down-hole positive displacement pump, the employer must implement measures to prevent the pump from causing pressures exceeding the pressure rating of the system.

Purpose of guideline

This guideline describes what is meant by the “measures” referenced in section 23.14(5) and outlines an example of an acceptable set of measures. The measures deal with the parts of the system that can be over-pressurized as a direct result of a down-hole positive displacement pump not being shut down when necessary, and with the associated pressure sensors.

Control measures

Appropriate control measures will ensure that a down-hole positive displacement pump does not cause pressure exceeding the design pressure of the system. They will typically include a combination of equipment, procedures and training.

The measures are to be effective. That is, they will provide at least the same level of safety and reliability as the applicable design codes for pressure safety valves if such valves were used to ensure that the design pressure was not exceeded.

An appropriate set of measures will address the following four matters:

1. Keyed locks or seals to physically prevent tampering with the settings of the pressure sensor switch that is part of the well shut-in safety system and any valve that may interfere with the correct operation of the sensor.
2. Procedures to ensure that locks or seals that restrict access to the pressure sensing and emergency shutdown system may only be removed with the prior permission of a supervisor.
3. Procedures to ensure that access to the emergency shutdown overpressure system is only permitted for purposes of maintenance or testing of that system, while using accurate gauges to monitor pressures.
4. Procedures and training to ensure the safety of field service workers and to prevent unauthorized changes to the pressure sensor and overpressure emergency shutdown system.

To be effective, the measures, once developed, must be fully implemented and maintained.