Production Safety Systems Flag, Bypass and Monitor Procedure

Purpose
This guidance is provided to ensure that all field personnel comply with the regulations as found at 30 CFR 250.803(c) (1) and 30 CFR 250.1004 (c). During maintenance, repair, and testing of equipment on board the platform, it is imperative that any equipment that is placed in by-pass must be placed back in service immediately following such maintenance, testing, or repairs. Therefore, these procedures will provide a guideline and a process to prevent an accidental by-pass of safety equipment after start-up, testing, maintenance, or repairs are completed.

Note: This procedure is not intended to replace the Apache Lock Out / Tag Out (LOTO) Procedure. However, it may be used in conjunction with LOTO.

Scope
This procedure will be used to properly flag, bypass and monitor production safety systems/devices as well as provide instructions on how to properly place components temporarily or permanently out-of-service.

Definitions

Maintenance – adjustments or repairs, typically of short duration, that can be performed without compromising effective monitoring (leaving the area for parts, supplies, or tools). For clarification, discuss with your supervisor.

Qualified Person – A person that has completed production safety system training in accordance with Apache’s Subpart O Training Program.

In-service – the device or component is performing its designed function.

Bypass – to block-out or disable a Safety Device so that it will not perform its designed function.

Temporarily Out-of-Service – A component is considered temporarily Out-of-Service when it is in standby, not in use (i.e. test separators, intermediate pressure vessels, etc), but can easily be placed in service. These components are NOT isolated from production facilities as per 30 CFR 250.803(c), it shall have a closed inlet valve. In this situation, Safety Devices that have been bypassed must be flagged with out of service tags. The Safety Device functions do not have to be monitored but must be tested and maintained in accordance with API RP 14C.

Permanently Out-of-Service – A component is permanently Out-of-Service (OOS) when it is not being used as part of the production process and it is properly isolated from all other production equipment or energy sources on the facility. Safety Devices for an out of service component must be labeled “Out-of-Service”. It is not necessary to monitor the bypassed Safety Device function. However, the PSV on any Out-of-Service component must be left In Service, maintained and tested.

Properly Isolated as per 30 CFR 250.803(c) (2), (3)

When wells are disconnected from producing facilities and blind flanged, equipped with a tubing plug, or the master valves have been locked closed, compliance is not required with the provisions of API RP 14C or this regulation concerning the following:

(i) Automatic fail-close SSV's on wellhead assemblies, and

(ii) The PSH and PSL shut-in sensors in flowlines from wells.

When pressure or atmospheric vessels are isolated from production facilities (e.g., inlet valve locked closed or inlet blind-flanged) and are to remain isolated for an extended period of time, safety device compliance with API RP 14C or this subpart is not required.

Tagging – A hanging, removable tag that identifies the status of a safety device/component (Bypass or Out of Service Tag).
Bypass Tagging Procedures

Bypass Tagging

Any surface or subsurface safety device which is bypassed shall be tagged. The purpose is:

- To be in compliance with the regulations.
- To be a visual reminder / alert to all personnel that a safety device is in "bypass".
- Notify all affected personnel

You may only bypass safety devices required to allow for the safe start-up, testing, maintenance or repair. Only the minimum number of safety devices that can be adequately monitored should be taken out of service. As soon as the task is completed, the safety device or devices must be placed back in service and the tag removed.

**Note:** Bypass tags shall also be placed on isolation valves when they are closed and prevent a safety device from performing its designed function, such as the bridle valves for a LSH, LSL, PSV or the hydraulic control line needle valve for a SCSSV.

Secondary Tagging

If a safety device is bypassed in such a manner that its condition or operating mode is not clearly visible then a second flagging device will be installed on the front of the associated control panel so that it is clearly visible. (i.e. devices/isolation valve inside control panel, slave panels, plugged relay ports, boat landing ESD, etc.)

Bypass Monitoring

Personnel shall monitor the bypassed or blocked-out functions until the safety devices are placed back in service. An operator is responsible for:

- Monitoring the function of the bypassed device.
- Directly monitoring the event while in by-pass and not performing other duties.
- Assuring monitoring activity occurs on the same platform, same deck level of either the component, device or panel of the bypassed or blocked out function.
- Assuring monitoring is not interrupted for reasons such as breaks, lunch or to greet personnel arriving on the facility including BOEMRE, company personnel, third party personnel, supervisors, etc.
- Monitoring for abnormal condition and taking corrective action (close inlet valve, ESD platform, etc.) to prevent an undesirable event. The ability to manually initiate shut-in action in the event of an abnormal operating condition must be maintained to protect personnel, the environment and equipment.

Remote Monitoring of Bypassed Safety Devices (SCADA Systems)

**Testing**

- Remote bypass for testing is not allowed.
- Testing bypass must be done at the local control panel.
- Must have qualified person monitoring the component.
- Maintain communications between component and control panel as necessary.

**Startup/Reset**

- The remote operator can place the device in bypass.
- This can only be done as part of a reset or startup activity.
The remote operator can only monitor a minimum number of devices. If multiple devices are monitored, the remote operator shall be able to view the appropriate data on one SCADA screen.

After the bypass device has cleared, it must be returned to service immediately after the process has stabilized.

Other site-specific guidelines may be required. These should be documented and maintained at the remote control facility.

This operation will comply with NTL 2005-G01 and NTL 2009-G24.

BOEMRE Inspection

Should the BOEMRE arrive while a safety device(s) is bypassed, immediately notify the BOEMRE Representative of all device(s) that are tagged and bypassed, why they are bypassed and how they are being monitored.

Apache Bypass and Out of Service Tagging System

Bypass Tags – a minimum of 5 tags will be issued to each qualified person and kept in their possession at all times while on duty

At the end of each shift, each individual must conduct a collective review and inventory of issued tags to ensure a surface or subsurface safety device has not been inadvertently left in bypass.

Out of Service Tags – will be available at each manned location

Bypass Tag and Out of Service Tag Specifications

- **Bypass Tag:**
  
  Shape: Rectangle
  
  Size: 1” x 8”
  
  Background Color: Red
  
  Lettering: White – "BYPASS"
  
  Material: Nylon material with rubber O-ring fastener

- **Out-of-Service Tag:**
  
  Shape: Round
  
  Size: 2 ½”
  
  Background Color: Yellow
  
  Lettering: Black – "Out-of-Service"
  
  Material: Hard plastic with metal lanyard