



Sustained Casing Pressure

Identification and Remediation

May 8, 2015

“To promote safety, protect the environment and conserve resources offshore through vigorous regulatory oversight and enforcement.”

Overview

- Monitoring
- Casing Pressure Categories
- Guidelines to Granting a Departure
- Considerations for Well Type

Monitoring

- Fixed wells: Monthly, one data point
- Subsea wells: Continuously, one data point per day
- Hybrid wells: Continuously, one data point for each riser/production casing

Monitoring

Condition	Testing Repeated
Pressure request denied	Immediately
Well previously on gas lift	Immediately on A annulus*
Pressure request invalid	Within 30 days
Increase in 200 psi over previous test	Within 30 days
If A annulus has pressure exceeding 10% of MIYP	Once per year*
After any corrective action	Within 30 days
Outer annuli have pressure exceeding 20% of MIYP	Once every five years

* Exclude wells on gas lift

Casing Pressure Categories

- “Self Approval” granted unless:
 - Fixed platform
 - Casing pressure above MAWOP
 - Does not bleed to through ½ needle valve in 24 hours, assuming SCP is greater than 100 psig
 - All wells:
 - Demonstrated communication between annuli/tubing, annuli/annuli, casing/riser, etc.
 - Subsea:
 - Above 100 psig + external hydrostatic pressure
 - Hybrid:
 - Above 100 psig

Casing Pressure Categories

- Departure Granted
 - ALL requests are granted on a well by well basis.
 - Presents no hazard to personnel, platform, formation, or environment
 - Allows for continued production
 - Lasts from six months to three years
 - Check daily on manned platforms
 - Check weekly on unmanned

Casing Pressure Categories

- Departure Terminates If:
 - End of granted period
 - Intermediate/production casing pressure increases more than 200 psi
 - Surface casing increases more than 200 psi
 - If worked over, side tracked, recompleted, or acidized
 - If a different casing or riser on same well requires a casing pressure departure

Casing Pressure Categories

- Departure Denial, when?
 - Communication departure requests do not bleed to zero, almost always
 - Determined, again, on a well by well basis

Casing Pressure Categories

- Departure Denial
 - Operator has 30 days from the date of denial to respond and submit plan of action.
 - Operator has 90 days from the date of denial to commence work
 - Regardless of SCP status (Self Approved, Departure Request) upon completion of work, operator must submit new test.

Special Considerations

- Subsea wells:
 - Only production casing can be monitored
 - Monitored continuously via umbilical, etc.
 - Equipment failure will require departure
 - NOT required to bleed to zero.
 - BSEE takes into account thermal expansion
 - Must be demonstrated
 - Should limit bleed off due to unknown annular pressures

Special Considerations

- Subsea Well Thermal Test
 - Bleed 15-20% of pressure off once the well is thermally stable.
 - If well remains stable for 24 hours, pressure is determined to be thermal.

Special Considerations

- Dry Tree Tie-back Systems
 - Zero Tolerance for SCP on inner or outer risers together at same time
 - No “Self Approved” Category
 - Monitor Continuously
 - Thermal or imposed pressure can be on inner or outer riser
 - Diagnostic must be conducted every six months or if pressure increases more than 100 psi on inner/outer riser

BSEE Website: www.bsee.gov



@BSEEGov



BSEEGov



Bureau of Safety and
Environmental Enforcement

“To promote safety, protect the environment and conserve resources offshore through vigorous regulatory oversight and enforcement.”