Executive Summary EStB – Surface BOP Risers

Surface BOP Risers

For the purpose of the EStB evaluation, the Surface BOP Risers is classified as both a barrier element and a mitigator. The barrier element components are limited to all pressure containing components that may serve as part of a barrier envelope when required.

Parts and Components (Barrier Elements), *i.e., Description of pressure containing parts and components that serve as part of a primary or secondary barrier envelope when required.*

Riser Joint - Provides structural support for riser components, including other sealing elements, within the riser system between mudline and surface.

Seals – Components used to close off or secure against fluid (e.g., elastomeric, metal-to-metal, gaskets, hanger(s)).

Tieback Connector – A threaded union used to join a subsea wellhead to surface riser that contains or controls pressure fluids.

Shut-in Device - A tested well control component that can be activated automatically or manually to contain wellbore fluids.

Taper Stress Joint -Riser segments of varying outside diameter designed to spread the bending moments and loads over the riser while containing wellbore fluids.

Riser Adaptor Joint - Component that provides a change in connection size/types in the riser string while maintaining fluid containment.

Surface Wellhead – The surface termination of a well that contains wellbore and annular fluids.

Spools – Pressure-containing pipe with end connectors (e.g., flanges, casing spools) and potentially side outlets used to connect between barrier elements.

Scope

Analysis on surface BOP risers will be limited to the period in which the equipment must perform as a barrier from installation until removal from service. As a result, the scope of the analysis is defined as:

- Any well construction or well modification operation (e.g., drilling, completion, well interventions, workover activities, abandonment, decommissioning).
- Fixed or floating facilities/MODUs utilizing pressure-rated risers for operations mentioned above. -This excludes facilities in which casing extends to a surface wellhead.

Assumptions

- The equipment is field proven.
- The equipment is,
    - Manufactured according to specification
    - Installed as per Original Equipment Manufacturer guidelines
    - Maintained as required
    - Functioning properly
    - Verified as needed
    - Regularly tested
- Throughout the equipment's lifecycle, the equipment is utilized within its prescribed applicable performance envelope (e.g., pressure, longevity, environment) and operated within design limits.

High Pressure Risers

A high-pressure conduit made up of components (e.g., pipes, spools, stress joints) utilized to convey fluids and/or downhole equipment to and from the wellbore.

Performance Requirements for Public Comments

Barriers	
Part/Component	**Performance Requirement**
Riser Joint	Contain wellbore fluids.
Seals	Contain wellbore fluids.
Tieback Connector	Contain wellbore fluids.
Shut-in Device	Contain wellbore fluids.
Taper Stress Joint	Contain wellbore fluids.
Riser Adaptor Joint	Contain wellbore fluids.
Surface Wellhead	Contain wellbore fluids.
Spools	Contain wellbore fluids.