



ESTB – Wellheads

Wellheads

A wellhead is a piece of equipment that provides structural support to hang off casing and surfaces to seal off the casing annuli used during operations. Other functions of a wellhead include:

- 1) maintain pressure integrity within the wellbore,
- 2) provide structural support for the BOP stack, and
- 3) provide a means to connect the BOP to the well and maintain pressure integrity.

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.

Seals – Components used to close off or secure against flow of fluid (e.g., elastomeric, metal-to-metal, gaskets, casing hangers).

High Pressure Housing – Is a primary barrier element of the wellhead system. It provides an interface between the subsea BOP stack and the subsea well.

Spools – Pipe with end connectors (e.g., flanges) used to connect between barrier elements (e.g., casing spools, surface wellhead body/spool, tubing spools).

Valves – Components intended to close to isolate fluids (e.g., annulus access ports).

Scope

Analysis on wellhead systems will be limited to the period in which the equipment must perform as a barrier, from installation until removal from service. 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).
- Normal production operations will be covered in a separate assessment.

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.

Performance Requirements for Public Comments

Barriers	
Part/Component	Performance Requirement
System	Must contain fluids to prevent leakage to the environment for center wellbore and all annuli, except for the drive pipe by conductor casing annulus on dry wellheads.
Seals	Must contain fluids to prevent leakage to the environment for center wellbore and all annuli, except for the drive pipe by conductor casing annulus on dry wellheads.
High Pressure Housing	Must contain fluids to prevent leakage to the environment for center wellbore and all annuli, except for the drive pipe by conductor casing annulus on dry wellheads.
Spools	Must contain fluids to prevent leakage to the environment for center wellbore and all annuli, except for the drive pipe by conductor casing annulus on dry wellheads.
Valves	Must contain fluids to prevent leakage to the environment for center wellbore and all annuli, except for the drive pipe by conductor casing annulus on dry wellheads.