



Executive Summary EStB – Casing Systems

Casing System

The casing system consists of tubulars, connections, accessories, and cured cement that allows for pressure integrity to exist. This evaluation of the casing system as part of a barrier envelope excludes packers and plugs.

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.

Tubular- Pipe with connectors on both ends designed to withstand anticipated pressure and loads (e.g., casing, tubing).

Connection union between two tubular components (e.g., welded or threaded).

Cement, for this exercise, "cement" is assumed to be the material used to isolate annular spaces from the inner casing bore or other annuli.

Body - Provides a frame and structural support for the associated components and sealing elements (e.g., casing hanger body).

Seals – Components used to close off or secure against flow of fluid (e.g., casing hanger with seal metal-to-metal, elastomer).

Accessories- Any accessory needed in the casing system that is pressure containing (e.g., coupling, inline centralizer, landing collar, stage collar).

Performance Requirement: Contains wellbore fluids from the environment under all conditions to which it is exposed, including MASP/MAWHP and induced pressure due to well kill operations.

Scope

Analysis on Casing Systems will be limited to the period in which the equipment must perform as a barrier from installation until removal from service.

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 pressure and wellbore fluids and not leak except within BSEE allowed test tolerances. Must support all sediments. Must withstand stresses during the life of the well.
Tubular	Must seal and not leak. Use "up to its rated stress performance envelope" instead of "anticipated".
Connection	Must seal and not leak. Use "up to its rated stress performance envelope" instead of "anticipated".
Cement	Must not allow migration of fluid between formations or to the environment up to its rated stress performance envelope.
Body	Must seal and not leak.
Seals	Must seal and not leak.
Accessories	Must seal and not leak.