SPPE (Safety and Pollution Prevention Equipment) Failure Notification Form
(Please submit the information listed below)

I. Operator Data

Date of Failure ________________________

Operator Company Name _______________________
(Operators will select their BSEE operator number from a drop down list that BSEE will provide)

Complex ID / Structure Number __________/__________
(Operators will select their Complex ID and Structure Number from a drop down list that BSEE will provide)

API Well Number, if applicable ____________________

Company Name Submitting Form, if different than the Operator _____________________________

Type of Company Submitting Form *(select one)*
- ☐ Production Contractor
- ☐ Other, Specify ___________________________

II. SPPE Details

Equipment manufacturer ______________________
Model ____________________
Serial Number _______________________
Working pressure ____________________
Nominal size ________________________

Provide a narrative describing any redress history for the SPPE that failed:

Please provide the date and a narrative description of the last SPPE test.

Date __________________
Narrative:

III. What was the Certification Status of the Failed SPPE *(select one)*

◻ Newly Installed; certified SPPE pursuant to ANSI/API Spec Q1
◻ Newly Installed; certified SPPE pursuant to Another Quality Assurance Program
◻ Previously certified under ANSI/ASME SPPE-1
◻ Non-Certified SPPE

IV. Was the SPPE previously repaired, remanufactured or subject to hot work offsite? ◻ *Yes* ◻ *No*

V. What type of tree was associated with the SPPE that failed? *(select one)*

◻ Dry Tree
◻ Subsea Tree

VI. Which SPPE component failed? *(select all that apply)*

◻ Valve Body
◻ Actuator
◻ Flow coupling (required for surface- or subsurface-controlled SSSV)
◻ Safety Lock
◻ Landing Nipple
◻ Direct hydraulic control system
◻ Electro-hydraulic control umbilical
◻ Flange
◻ Ring joints
◻ Ball
◻ Flapper
◻Temperature Safety Element (TSE)
◻ Emergency Shutdown (ESD) System

VII. SPPE Type

What was the type of SPPE that failed? *(select one)*

◻ Surface Safety Valve (SSV)
◻ Boarding Shutdown Valve (BSDV)
◻ Underwater Safety Valve (USV)
◻ Surface controlled SCSSV
◻ Subsurface controlled SSCSV

VIII. SSSV Details

What was the type of SSSV that failed? *(select one)*

- ◻ Tubing retrievable
- ◻ Wireline retrievable
- ◻ Through flowline (TFL)
- ◻ SCSSV retrievable
- ◻ SSCSV retrievable

Was the SSSV formerly a pump through type tubing plug? *◻ Yes ◻ No*

If the SSSV that failed was Subsurface Controlled (SSCSV), what type was it? *(select one)*

- ◻ Velocity-type SSCSV
- ◻ Tubing-pressure-type SSCSV

What was the service class of the SSSV that failed? *(select one)*

- ◻ Class 1 only standard service
- ◻ Class 2 sandy service
- ◻ Class 1 and 2
- ◻ Class 3 stress cracking
- ◻ Class 3s (sulfide stress and chlorides in a sour environment)
- ◻ Class 3c (sulfide stress and chlorides in a non-sour environment)
- ◻ Class 4 mass loss corrosion service

X. BDSVs, SSVs, and USVs

What was the service class of the BDSV/SSV/USV? *(select one)*

Class I: performance level requirement intended for use on wells that do not exhibit the detrimental effects of sand erosion.

Class II: performance requirement level intended of use if a substance such as sand could be expected to cause an SSV/USV valve failure

If the SPPE that failed was a BSDV, which type was it? *(select one)*

- ◻ Automatic
- ◻ Manual BSDV

X. SPPE Design Criteria

Was the SPPE designed for High Pressure High Temperature (HPHT) conditions? *◻ Yes ◻ No*

Was the SPPE designed for Arctic Conditions? *◻ Yes ◻ No*

Please specify the most extreme exposure conditions for which the SPPE was designed to function?

Design Pressure __________ psi

Design Temperature _________ degrees F

Design Flow Rate __________
Other Design Environmental Conditions ____
____
____

XI. Well data *(Provide the information below, as applicable)*

What was the type of well associated with the SPPE failure? (select one)
- ◻ Production
- ◻ Injection Well

Was the well shut in at the time of failure? ◻ *Yes* ◻ *No*

What was the last Well Test Rate? _____________________

What was the date of the last Well Test? ___________________

What were the Environmental Conditions *(check all that apply)*
- ◻ Sand, Specify percentage _____%
- ◻ H2S
- ◻ CO2
- ◻ Other, Specify ____

Pressures and temperatures
Surface ____________ psi / ____________ degrees F
Bottom hole _____________psi / ___________degrees F

XII. Under what conditions was the SPPE activated at the time of the failure *(check all that apply)*

- ◻ Activated during normal well operations
- ◻ Activated in response to an ESD
- ◻ Activated during emergency weather or other emergency conditions
  Specify the nature of the emergency: ____
- ◻ Activated during a process upset
- ◻ Activated in response to the detection of a high or a low pressure condition by a PSHL sensor located upstream of the BSDV
- ◻ Activated when the gas lift system introduced gas into the system
- ◻ Activated during a leakage test

XIII. Description of the failure

Provide a narrative description of the failure to include, **but not limited to**:
- as much information as possible on the operating conditions that existed at the time of the malfunction or failure

- an accurate a description as possible of the malfunction or failure
- any operating history of the SPPE leading up to the malfunction or failure (e.g. field repair, modifications made to the SPPE, etc.)

XIV. Specify how many cycles or hours were completed since the last preventative maintenance.
(If the SPPE was newly installed, specify how many cycles or hours were completed since the SPPE was installed).
________________number of cycles **or** _______________ number of hours

XV.Provide a narrative describing the general configuration of the SPPE and hydrocarbon flow path.

XVI. What factors contributed to the failure? ***(select all that apply)***

- ☐ Improper Design
- ☐ SPPE erroneously thought to be certified but was not
- ☐ Inadequate requalification/verification testing
- ☐ Installation was incompatible with specific design elements like subsea trees and related equipment, tubing hangers, etc.
- ☐ Improper Use
- ☐ Operating conditions out of range of device
- ☐ Mechanical failure – leak
- ☐ Mechanical failure -- sand cut erosion
- ☐ Mechanical failure – Corrosion (chemical - H_2S orCO_2)
- ☐ Mechanical failure -- Corrosion (atmosphere)
- ☐ Valve seat degradation
- ☐ Failed to open
- ☐ Failed to close
- ☐ Failed to contain hydrocarbons
- ☐ Failure to meet required closure timing (consider both isolation and bleed time when deciding)

- ◻ Electrical power failure
- ◻ Hydraulic power failure
- ◻ Incorrect assembly
- ◻ Valve damaged during assembly/disassembly
- ◻ Improper maintenance
- ◻ Improper repair
- ◻ Shipping damage
- ◻ Damage related to lifting or material handling
- ◻ Storm damage
- ◻ Collision damage
- ◻ Damage related to a seismic event
- ◻ Applied hydraulic pressure through wellhead seal assembly required to maintain surface-controlled SSSV in the open position exceeds MRWP of the wellhead by more than a minimum required amount
- ◻ Other, Specify ____

XVII.Preliminary Root Cause *(select all that apply)*

- ◻ Human Error, Personnel Skills or Knowledge
- ◻ Human Error, Quality of Task Planning and Preparation
- ◻ Human Error, individual or group decision-making
- ◻ Human Error, quality of task execution
- ◻ Human Error, quality of hazard mitigation
- ◻ Human Error, communication
- ◻ Maintenance plan and procedure
- ◻ Manufacturing defect
- ◻ Design issue
- ◻ Wear and tear
- ◻ Other, Specify ____

XVIII.Is a formal Root Cause and Failure Analysis recommended? ◻ ***Yes*** ◻ ***No***

XIX.Corrective Action

What corrective action was taken related to the SPPE failure? *(select all that apply)*

- ◻ Adjust
- ◻ Check
- ◻ Inspection
- ◻ Modify
- ◻ Overhaul
- ◻ Refit
- ◻ Remanufacturer

☐ Repair
☐ Replace
☐ Service
☐ Test
☐ Other, Specify ____

Where was the corrective action accomplished? *(select one)*
☐ Contractor's facility
☐ Manufacturer's facility
☐ On location
☐ Operator's facility

If the corrective action was accomplished on location, who conducted the corrective action? *(select one)*
☐ Operator
☐ Contractor
☐ Manufacturer

XX.Was the failure associated with an HSE Incident: ☐ *Yes* ☐ *No*

If Yes, what was the type of incident? *(select all that apply)*
☐ One or More Fatalities
☐ Injury to 5 or more persons in a single incident
☐ Tier 1 Process Safety Event (API 754/IOGP 456)
☐ Loss of Well Control
☐ $1 million direct cost from damage of loss of facility/vessel/equipment
☐ Oil in the water >= 10,000 gallons (238 bbls)
☐ Tier 2 Process safety event (API 754/IOGP 456)
☐ Collisions that result in property or equipment damage > $25,000
☐ Incident involving crane or personnel/material handling operations
☐ Loss of Station-keeping
☐ Gas release (H2S and Other) that result in process or equipment shutdown
☐ Muster for evacuation
☐ Structural Damage
☐ Spill < 10,000 gallons (238 bbls)
☐ Other, Specify ____