

# Valve Program Management

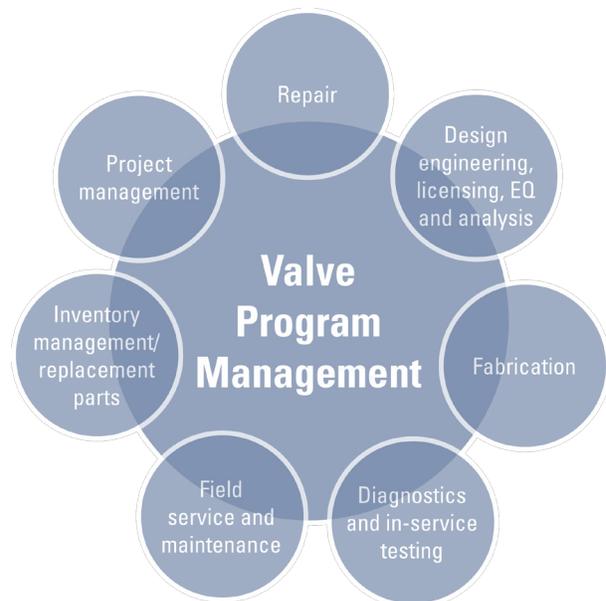
## Background

The goal of Valve Program Management (VPM) is to maintain the safety-related and important-to-safety-related valves' reliability so that they can perform the design basis requirements for the life of the plant. While this may be simply stated, the actual management and implementation of the program is a complex and comprehensive task that, if performed effectively, results in increases in both plant reliability and capacity factors. The VPM initiative, an effort to achieve improved plant performance, comprises the following components:

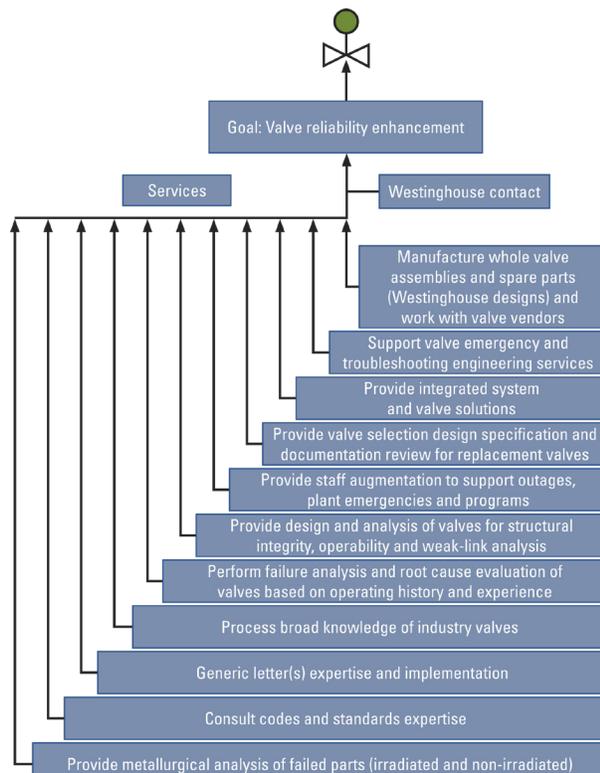
- Design engineering, licensing, equipment qualification (EQ) and analysis
- Fabrication
- Diagnostics and in-service testing
- Field service and maintenance
- Inventory management/replacement parts
- Project management
- Repair

## Description

Westinghouse's vast technological base and its capability to support a plant's valve issues are key in implementing the program. Westinghouse also has relationships with third-party vendors that will provide other necessary services. First, the customer contacts Westinghouse to engage his or her assigned Westinghouse representative. Once the Westinghouse contact has been notified, Westinghouse will marshal the resources to support the customer's request. For any selected service, Westinghouse can tailor the program to meet the customer's needs and utilize existing programs to deliver quality and cost-effective products and services.



The programmatic components of a detailed VPM initiative are shown in this graphical view:



Graphical view of a subset of Westinghouse capabilities to support a VPM initiative

## Benefits

Westinghouse can leverage its engineering capabilities, its field service know-how and its technology to provide integrated VPM support through valve reliability.

Westinghouse provides life cycle management for these valves through:

- Valve design and analysis capabilities
- Utilization of system and valve knowledge to solve problems
- Application of knowledge of codes and standards and generic letters
- Spare parts and inventory management
- Expertise in valve upgrades

## Experience

Westinghouse has helped a number of its customers with programs to manage their valves by providing engineering, spare parts and repairs at their plant sites. Some of Westinghouse's experiences include:

- Implementation of the Joint Owners Group topical report at various plants in the United States and worldwide
- Modification and installation of check valve covers/bonnets for seal welds to prevent external leakage
- Root cause analysis of fractured main steam isolation valve stems and metallurgical analysis
- Development of startup procedures for plant pressurizer safety valves
- Overthrust evaluations for Westinghouse's motor-operated valves (MOVs) at various plants
- Qualification of MOVs for hot-short evaluation at various plants
- Development of replacement trim parts for air-operated valves and MOVs
- Site augmentation of engineers to support repair initiatives at various plants
- Support for replacement of check valve seat rings
- Supply of replacement Westinghouse check and gate valves
- Diagnostics test support and evaluation of plants in Europe
- Evaluation and repair of loop stop isolation valves



Westinghouse gate valve