

*Valve Considerations
for
Natural Gas Transmission Pipelines*

A State Perspective

*Virginia State Corporation Commission
Division of Utility and Railroad Safety
James M. Hotinger, PE, Assistant Director*

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Considerations

- Siting
- Installation
- Maintenance
- Other Considerations

Siting Considerations

- Distance between Valves
- Geometry of Pipeline
- Location Accessibility









Installation Considerations

- Manufacturer's Installation Requirements
- Direction of Flow

From a Manufacturer's Guidelines

4. Your valve was delivered in the FULL OPEN position, which when welding into place should always be in the OPEN position to prevent weld spatter from damaging the surface of the Ball.
5. Protecting the interior area where the ball and seats meet is important. The use of Anti-Splatter, Grease, or masking tape may be used to prevent splatter from welds or BB's forming in vital areas of the valve.
6. With the Valve and Pipe mated and properly aligned, a root weld should be applied, followed by filler welds and a cap weld. The proper welding procedures should be followed in accordance to API 1104, allowing for proper cooling times between welding passes.
Temperature at the area of the Soft Seat should not exceed 200° F.



Maintenance Considerations

- Each type of valve has different maintenance requirements
- Each type of actuator also has different maintenance requirements











Other Considerations

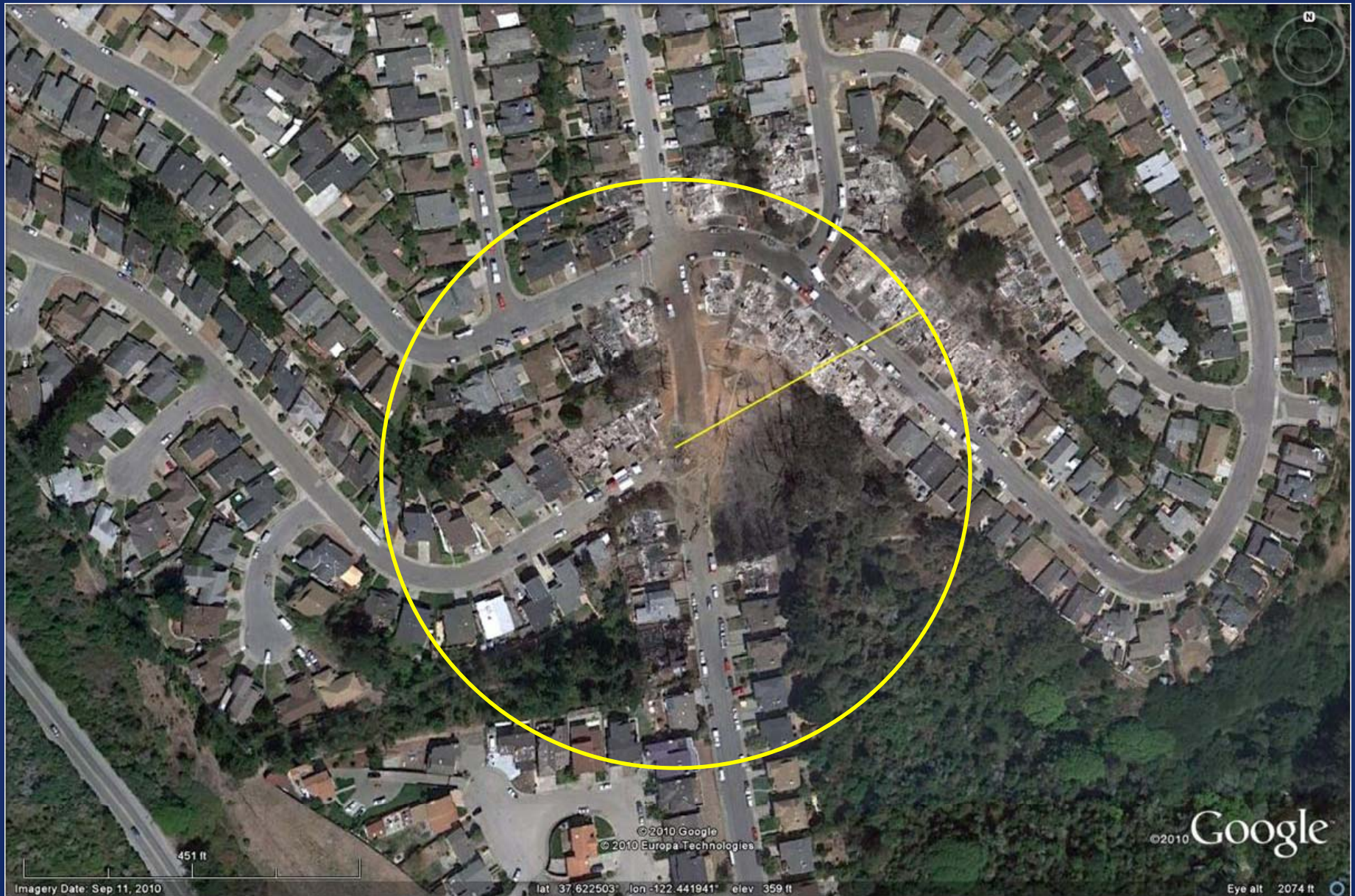
- Requirement for electricity or communication lines
- Fail open/close/last Position
- Pipeline pressures and differential pressures
- Solenoid valves
- Limit Switches
- Manual Overrides
- Signal Controls
- Field repairable
- Filters needed

Stored Energy





San Bruno - 415 foot radius from rupture



In Summary

- One size does not fit all.
- The siting, installation, maintenance, and most importantly, the amount of stored energy should be considered and appropriate decisions made to mitigate potential threats or risks.

Thank You