

## - A Programmatic Approach



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### MEET THE CHALLENGES OF MAOP VERIFICATION FOR EXISTING NATURAL GAS PIPELINES

In September of 2010, a 30-inch natural gas transmission pipeline ruptured in San Bruno, California. The rupture occurred in a residential area, killing eight people, injuring many more, and causing substantial property damage. Subsequently, the National Transportation Safety Board (NTSB) recommended that the Pipeline and Hazardous Materials Safety Administration (PHMSA) inform the pipeline industry of the circumstances leading up to the San Bruno incident to ensure that operators verify the records used to establish or adjust maximum allowable operating pressures (MAOP). On January 10, 2011, PHMSA issued an advisory bulletin (ADB-11-01) to natural gas pipeline operators in which it advised operators to take appropriate actions to ensure its records for transmission pipeline MAOPs are “traceable, verifiable and complete” and that operators relying on the review of design, construction, inspection, testing and other related data to calculate MAOP must diligently search, review and scrutinize documents and records and assure that the records are reliable.

For many operators, ensuring that records for establishing MAOP are traceable, verifiable and complete will be a significant project that requires careful planning. In preparing for such an effort, operators will wish to consider the following aspects:

- Identification of a project team with the required skills, experience and knowledge in the code requirements for MAOP determination and whether it is necessary to seek the support of contractors/consultants to minimize the impact on daily operational requirements,
- A clear definition of what the operator considers to be traceable, verifiable and complete,
- A schedule and a budget; and whether rate recovery will be sought,
- An inventory of all applicable records and their location,
- A prioritization scheme for operators with extensive transmission mileage,
- Selection of databases, software and/or GIS applications required to tie physical records to pipeline segments,
- Identification of critical source documents to be scanned,
- Conservative assumptions that may be taken if records supporting a data element cannot be found, and how such determinations are documented,
- Process or actions to be taken if the MAOP cannot be verified with existing records.

Structural Integrity Associates (SI) has been supporting natural gas transmission pipeline operators with integrity management issues since 2002 and has experience assisting operators comply with the MAOP guidance established in PHMSA Advisory Bulletin ADB-11-01.

