

Generic specifications for video inspections using PipeTech  
(As Provided by Peninsular)

DEFINITIONS

- A. MPEG Video: MPEG (pronounced M-peg), which stands for Moving Pictures Expert Group, is a common name for a group of International Standards used for encoding audio-visual information in a compressed digital format. For this specification, MPEG Video shall be defined as ISO-MPEG Level 1 (MPEG-1) coding having a resolution of 352 pixels (x) by 240 pixels (y) and an encoded frame rate of 29.97 frames per second.
- B. CD-ROM: Compact Disk — Read Only Memory. For this specification, CD-ROM shall be defined as a Write-Once CD (CD-R) written in accord with the ISO-9660 Level 2 specification.
- C. DVD-ROM: Digital Versatile Disk — Read Only Memory. For this specification, DVD-ROM shall be defined as a Write-Once DVD (DVD-R) written in accord with the ISO-9660 Level 2 specification. DVD-RAM shall NOT be deemed equivalent or acceptable.
- D. JPEG: JPEG (pronounced J-peg), which stands for Joint Photographic Experts Group, is a common name for a group of International Standards used for the lossy compression of 24-bit color images.

DIGITAL VIDEO/AUDIO RECORDING

- A. Digital Recording: The digital recording shall include both audio and video information that accurately reproduces the original picture and sound of the video inspection. The video portion of the digital recording shall be free of electrical interference and shall produce a clear and stable image. The audio portion shall be sufficiently free of background and electrical noise as to produce an oral report that is clear and discernible.
- B. Separate MPEG Video files shall be created for each pipe segment inspected. If a reverse setup is required, the individual portions of that pipe segment shall be stored in separate MPEG Video files.
- C. The pipeline inspection shall consist of identifying a location both within the pipe segment (physical location) and within the digital recording (video frame location) for each defect or observation. The use of time codes for defect location shall NOT be deemed equivalent or acceptable. This will allow the digital recording and inspection data to be cross-referenced for instant access to any point of interest within the digital recording.

## DATA STORAGE

- A. Inspection information shall be stored in a relational database management system that employs relationships to increase data integrity and reduce data storage space.
- B. The inspection information shall include the Digital Recording of video and audio, Segment Identification information (Starting MH, Date, Time, etc.), Observation Information (Observation Code, Location, Clock Position, etc.) including a pointer from each observation to the digital recording (Video frame Number), and any accompanying digital still images (JPEG or BMP).
- C. All inspection information shall be written to digital media for archival and future review purposes.

## REPORT/INSPECTION INFORMATION CUSTOMIZATION

- A. The software must allow the user to define aspects of the inspection information that is recorded including: Segment Identification information (Starting MH, Date, Time, etc.), Observation Information (Observation Code, Location, Clock Position, etc.), and Observation Codes and Descriptions.
- B. The Reports that are generated surrounding each segment must allow for user customization including: Categorized Sorting and Color-Coding, Individual Observation Thumbnail Printing, and user defined Report Headings.