

§ 195.587 What methods are available to determine the strength of corroded pipe?

Under § 195.585, you may use the procedure in ASME B31G, "Manual for Determining the Remaining Strength of Corroded Pipelines," or the procedure developed by AGA/Battelle, "A Modified Criterion for Evaluating the Remaining Strength of Corroded Pipe (with RSTRENG disk)," to determine the strength of corroded pipe based on actual remaining wall thickness. These procedures apply to corroded regions that do not penetrate the pipe wall, subject to the limitations set out in the respective procedures.

§ 195.588 What standards apply to direct assessment?

(a) If you use direct assessment on an onshore pipeline to evaluate the effects of external corrosion, you must follow the requirements of this section for performing external corrosion direct assessment. This section does not apply to methods associated with direct assessment, such as close interval surveys, voltage gradient surveys, or examination of exposed pipelines, when used separately from the direct assessment process.

(b) The requirements for performing external corrosion direct assessment are as follows:

(1) *General.* You must follow the requirements of NACE SP0502 (incorporated by reference, *see* § 195.3). Also, you must develop and implement an External Corrosion Direct Assessment (ECDA) plan that includes procedures addressing pre-assessment, indirect examination, direct examination, and post-assessment.

(2) *Pre-assessment.* In addition to the requirements in Section 3 of NACE SP0502 (incorporated by reference, *see* § 195.3), the ECDA plan procedures for pre-assessment must include—

(i) Provisions for applying more restrictive criteria when conducting ECDA for the first time on a pipeline segment;

(ii) The basis on which you select at least two different, but complementary, indirect assessment tools to assess each ECDA region; and

(iii) If you utilize an indirect inspection method not described in Appendix

A of NACE SP0502 (incorporated by reference, *see* § 195.3), you must demonstrate the applicability, validation basis, equipment used, application procedure, and utilization of data for the inspection method.

(3) *Indirect examination.* In addition to the requirements in Section 4 of NACE SP0502 (incorporated by reference, *see* § 195.3), the procedures for indirect examination of the ECDA regions must include—

(i) Provisions for applying more restrictive criteria when conducting ECDA for the first time on a pipeline segment;

(ii) Criteria for identifying and documenting those indications that must be considered for excavation and direct examination, including at least the following:

(A) The known sensitivities of assessment tools;

(B) The procedures for using each tool; and

(C) The approach to be used for decreasing the physical spacing of indirect assessment tool readings when the presence of a defect is suspected;

(iii) For each indication identified during the indirect examination, criteria for—

(A) Defining the urgency of excavation and direct examination of the indication; and

(B) Defining the excavation urgency as immediate, scheduled, or monitored; and

(iv) Criteria for scheduling excavations of indications in each urgency level.

(4) *Direct examination.* In addition to the requirements in Section 5 of NACE SP0502 (incorporated by reference, *see* § 195.3), the procedures for direct examination of indications from the indirect examination must include—

(i) Provisions for applying more restrictive criteria when conducting ECDA for the first time on a pipeline segment;

(ii) Criteria for deciding what action should be taken if either:

(A) Corrosion defects are discovered that exceed allowable limits (Section 5.5.2.2 of NACE SP0502 (incorporated by reference, *see* § 195.3) provides guidance for criteria); or