ARTICLE Z-2000
GENERAL REQUIREMENTS

The Owner’s Buried Piping and Component Inspection Program shall address the following critical attributes:

(a) All Class 2 and 3 buried piping and components shall be covered by the program. The program may also contain non-Class 2 and non-Class 3 buried piping and components.

(b) The program shall be documented in the Owner’s written procedures and processes.

(c) The program shall assess Class 2 and Class 3 buried piping and components to provide reasonable assurance of their structural and leakage integrity. The assessment shall use risk ranking, examination data, and technical justification.

(d) Using risk ranking, examination data, and technical justification, Class 2 and 3 buried piping and components in the program shall be assessed by the program to provide reasonable assurance of their structural and leakage integrity.

(e) Based on the assessment above, the program shall develop and maintain an inspection plan. Buried piping and components shall be grouped based on various attributes, such as process fluid, pipe material, coatings, burial depth, age, and soil/backfill. Implementation of the inspection plan shall include at least one direct examination per group containing Class 2 or Class 3 buried piping and components. Previous examinations performed under other site requirements or processes may be used to meet this requirement. Groups may be used to extrapolate examination results from one or more examinations to the remainder of the group. The methodology and evaluation of the grouping shall be documented in the program.

(f) If a Class 2 or Class 3 pipe or component inspected under the program fails to meet required structural or leakage integrity, the component may be accepted in accordance with IWC-3132 or IWD-3132.

(g) The program shall drive continued assessment and management of the material condition of components to maintain reasonable assurance of their continued structural and leakage integrity. This may include continued examinations, monitoring, or evaluations under the program, including consideration of coating life relative to original or extended plant life. The program shall be maintained as an active and living process, with the inspection plan to be reviewed and updated at least once each inspection period in accordance with IWC-2411 and IWD-2411.

(h) The program shall define and maintain appropriate management oversight and controls.
NONMANDATORY APPENDIX Z
GUIDE FOR BURIED PIPING AND COMPONENT INSPECTION PROGRAM

Z-1000 SCOPE

This Nonmandatory Appendix provides guidance for the Owner’s Buried Piping and Component Inspection Program as required by IWC-2500(f), IWD-2500(c), Table IWC-2500-1 Category C-J, and Table IWD-2500-1 Category D-C. However, if used, all provisions of this appendix shall be met. Other industry standards and Owner buried piping programs may be utilized to establish, maintain, and implement this inspection program. This Nonmandatory Appendix is intended to identify the critical attributes the Buried Piping and Component Inspection Program should initially consider, as well as should maintain throughout the life of the Program and its implementation.

Z-2000 GENERAL REQUIREMENTS

The Owner’s Buried Piping and Component Inspection Program should address the following critical attributes:

a) All ASME Class 2 and 3 buried piping and components shall be included in the Program. The Program may also contain non-ASME-Class 2 and 3 buried piping and components.

b) The Program shall be documented and implemented by in the Owner’s written procedures and processes.

c) The Program shall develop, perform, and maintain risk ranking and prioritization of piping and components to understand site vulnerabilities and to prioritize examination, testing, and/or mitigation actions.

d) Using risk ranking, examination data, and technical justification, all ASME Class 2 and 3 buried piping and components in the Program shall be assessed by the Program to provide reasonable assurance of their structural and leakage integrity.

e) Based on the assessment above, the Program shall develop and maintain an inspection plan. Buried Piping and Components are shall be grouped based on various attributes, such as but not limited to process fluid, pipe material, coatings, burial depth, age, soil/backfill, etc. Implementation of the inspection plan should include at least one direct examination per group containing ASME-Class 2 or 3 buried piping and components. Previous examinations performed under other site requirements or processes may be used to meet this requirement. Groups may be utilized to extrapolate examination results from one or more examinations to the remainder of the group. The methodology and evaluation of the grouping shall be performed per the Owner’s written procedures and processes, and shall be documented in the Program.

f) Should an ASME-If a Class 2 or 3 pipe or component inspected under the Program fails to meet required structural or leakage integrity, the component shall-may be accepted in accordance with IWC-3132 or IWD-3132.

g) The Program shall drive continued assessment and management of the material condition of components to maintain reasonable assurance of their continued structural and leakage integrity. This may include continued examinations, monitoring, and/or evaluations under the Program, including consideration of coating life relative to original or extended plant life. The Program shall be maintained as an active and living process, with the inspection plan to be reviewed and updated at least once per Period as defined in each inspection period in accordance with IWC-2411 and IWD-2411.

h) The Program shall define and maintain appropriate management oversight and controls.