Piping_CandidateDetectionGrades **Definition**

Field Name	Data Type	Size	
CDETGID	int	4	Candidate Detection Grade ID
CGAID	int	4	Candidate Grading Attempt ID
DetectionGrade	nvarchar	50	Pass / Fail
SizingGrade	nvarchar	50	Pass / Fail
DetectGradeFer	nvarchar	50	Pass / Fail
RetestName	nvarchar	50	Name of Retest if needed
RMS	float	8	

Piping_CandidateGradingAttempts **Definition**

Field Name	Data Type	Size	
CGAID	int	4	Candidate Grading Attempt ID
CandidateID	int	4	Unique ID for each Candidate
CandidateName	nvarchar	50	Name of Candidate
SSN	nvarchar	50	
ProcedureID	int	4	Unique ID for each Procedure
ProcedureName	nvarchar	50	
SessionName	nvarchar	50	PDI Session Number
DateTaken	datetime	8	Test Taken Date
TestSetID	int	4	ID for Test Set Given
TestSetName	nvarchar	100	Name of Test Given
TestSetType	nvarchar	50	Type of Test Set (Aust., Ferr, Combination, IGSCC Requal)
TestSetMaterial	nvarchar	50	Type of Material (Aust. Ferr.)
Retest	bit	1	Indicator (Yes, No)
TestType	nvarchar	50	
IsGradingComplete	bit	1	Yes, No

Piping_CandidateGradingSheetDetection **Definition**

Field Name	Data Type	Size	
CGSDID	bigint	8	Candidate Grading Set
CGAID	int	4	Candidate Grading Attempt ID
SpecimenID	int	4	Unique ID for Sample
SpecimenName	nvarchar	50	Name of Sample
SpecimenMaterial	nvarchar	50	Aust., Ferr.
Diameter	float	8	
WallThickness	float	8	
CircumODLength	float	8	Length of Sample
RadioGraph	nvarchar	50	Reference to Fabrication RT #
Sizable	bit	1	Depth sizable: Yes, No
Retired	bit	1	Checked if sample in no longer used for testing
SpecimenNotes	text	16	any notes pertaining to a sample
FilePath	nvarchar	2000	Used as a link to an external document (hyperlink)
FlawCount	int	4	Number of Flaws
SpecimenDateCreated	datetime	8	Date Sample placed in Program
UnitID	int	4	ID of a Grading Unit within a Sample
UnitNumber	int	4	Sequential Number of Unit within a Sample
UnitType	nvarchar	50	Flawed or Unflawed
CircumLocFrom	float	8	Unit or Flaw start location
CircumLocTo	float	8	Unit or Flaw end location
FlawOrientation	nvarchar	50	Axial or Circumferential
FlawType	nvarchar	50	TF=Thermal Fatigue, MF=Mechanical Fatigue, IGSCC
SideofWeld	nvarchar	50	Flaw location: upstream or downstream
Depth	float	8	% of flaw depth as compared to thickness
FlawHeight	float	8	Flaw height
Thickness	float	8	Component thickness at the flaw location
WCF	bit	1	Weld crown flush (Yes or no)
WWC	bit	1	Wide weld crown (yes or no)
LS	bit	1	Limited scanning (yes or no)
UWC	bit	1	Unground weld crown
GC	bit	1	Geometric condition: this is used to identify if a flaw is near a geometric condition
GCCrown	bit	1	Sub set of GC
GCRoot	bit	1	Sub set of GC
GCCounterbore	bit	1	Sub set of GC
UnitDateCreated	datetime	8	
SAPS	int	4	
DAPS	int	4	
SAFS	int	4	
DAFS	int	4	

Piping_CandidateGradingSheetDetection Continued

Field Name	Data Type	Size	Definition
SDPS	int	4	
DDPS	int	4	
SDFS	int	4	
DDFS	int	4	
Detection	nvarchar	50	Yes or no based on if the Candidate detected the flaw or not
Access	nvarchar	50	upstream or downstream
Flow	char	10	direction of flow (can be used to reverse the sample and thus the grading units)
SameOrFarSide	nvarchar	50	Is the flaw on the same side of the weld as the Candidate has access. This is relevant if the sample is given with single side acess
DataSheet	nvarchar	50	Used to identify the candidate paperwork, user input at time of grading
ActualLength	float	8	True length of a flaw
MeasuredLength	float	8	flaw length reported by Candidate
Selected	bit	1	Checked if the unit will be considered for grading
UseForRMS	bit	1	checked if a flaw will be considered for RMS calculations
Comment	nvarchar	4000	User input
ToSizeUnit	bit	1	Checked if flaw is to be considered for depth sizing
Alias	nvarchar	50	Name of sample provided to the candidate
TestSetUnitNotes	nvarchar	4000	User input for notes

Piping_CandidateGradingSheetTWS **Definition**

Field Name	Data Type	Size	
CGSTID	int	4	Candidate grading test set ID
CGAID	int	4	Candidate grading attempt ID
SpecimenName	nvarchar	50	Name of sample given in test
Alias	nvarchar	50	Name of sample given to candidate in test
UnitNumber	int	4	Number of the unit in a given sample
SpecimenMaterial	nvarchar	50	Aust., Ferr.
ACT_T	float	8	Actual sample thickness at the flaw location
EST_FH	float	8	Candidate reported flaw height
ACT_FH	float	8	Actual height of the flaw
FilePath	nvarchar	2000	Used as a link to an external document (hyperlink)

Piping_CandidateTWSGrades **Definition**

Field Name	Data Type	Size	
CTWSGID	int	4	Candidate depth sizing grading ID
CGAID	int	4	Candidate grading attempt ID
NumRows	int	4	Number of rows (used for RMS calculation)
TWSGrade	nvarchar	50	Pass / fail
RMS	float	8	RMS number value

Piping_Specimens **Definition**

Field Name	Data Type	Size	
SpecimenID	int	4	Unique sample ID number
SpecimenName	nvarchar	50	Truth name of sample
Material	nvarchar	50	Aust., Ferr
Diameter	float	8	
WallThickness	float	8	Sample thickness
CircumODLength	float	8	Weld length of sample
RadioGraph	nvarchar	50	
Sizable	bit	1	Yes or no for depth sizing
Retired	bit	1	Sample used in test sets: yes or no
Notes	nvarchar	4000	user input
FilePath	nvarchar	1000	Used as a link to an external document (hyperlink)
FlawCount	int	4	Number of flaws in the sample
DateCreated	datetime	8	Date of sample creation

Piping_TestSets **Definition**

Field Name	Data Type	Size	
TestSetID	int	4	Unique ID for test set
TestSetName	nvarchar	100	Name of test set
TestSetType	nvarchar	50	Type of Test Set (Aust., Ferr, Combination, IGSCC Requal)
TestSetMaterial	nvarchar	50	Aust., Ferr
Retest	bit	1	Indicator (Yes, No)
MarkedAsCompliant	bit	1	yes or no: does set meet code requirements
DateCreated	datetime	8	date test set was created

Piping_TestSetUnits **Definition**

Field Name	Data Type	Size	
TSUID	int	4	Test set unit ID
TestSetID	int	4	Unique ID for test set
UnitID	int	4	ID for a given grading unit
Alias	nvarchar	50	Name provided to Candidate
Access	nvarchar	50	Upstream or downstream
Flow	nvarchar	50	Upstream or downstream
Notes	nvarchar	2000	User input
Selected	bit	1	Unit used for grading: Yes or no
DateCreated	datetime	8	

Piping Units **Definition**

Field Name	Data Type	Size	
UnitID	int	4	Unique ID of unit
SpecimenID	int	4	Unique ID of sample
UnitNumber	int	4	Number assigned to each unit
UnitType	nvarchar	50	Flawed or unflawed
CircumLocFrom	float	8	Circumferential strat location of unit
CircumLocTo	float	8	Circumferential end location of unit
Orientation	nvarchar	50	Axial, Circumferential related to a flaw
Type	nvarchar	50	TF=Thermal Fatigue, MF=Mechanical Fatigue, IGSCC
SideofWeld	nvarchar	50	upstream or downstream location of flaw
Depth	float	8	% of flaw depth as compared to thickness
FlawHeight	float	8	Flaw height
Thickness	float	8	Component thickness at the flaw location
WCF	bit	1	Weld crown flush (Yes or no)
WWC	bit	1	Wide weld crown (yes or no)
LS	bit	1	Limited scanning (yes or no)
UWC	bit	1	Unground weld crown
GC	bit	1	Geometric condition: this is used to identify if a flaw is near a geometric condition
GCCrown	bit	1	Sub set of GC
GCRoot	bit	1	Sub set of GC
GCCounterbore	bit	1	Sub set of GC
DateCreated	datetime	8	Date of sample creation
SAPS	int	4	
DAPS	int	4	
SAFS	int	4	
DAFS	int	4	
SDPS	int	4	
DDPS	int	4	
SDFS	int	4	
DDFS	int	4	