

ADMIN 1-B31.8-DOCS Minimum System Documentation

Notes:

1. 49 CFR 192 contain requirements for natural gas as well
2. B31.8 replaces the reference of owner with "operating company"; *operating company*: as used in this Code, is the individual, partnership, corporation, public agency, owner, agent, or other entity responsible for the design, construction, inspection, testing, operation, and maintenance of the pipeline facilities.

No.	B31.8 Code Heading	B31.8 Code Reference	Code Text	How	Who	Applic. to System? (Y/N)
B31.8 Required Minimum Records						
1	802.2 Intent	802.2.2 More Complete Analysis	(b) For operation and maintenance, an operating company may choose to use a more rigorous analysis to develop operation and maintenance requirements. When the operating company decides to take this approach, the operating company shall provide details and calculations demonstrating that such alternative practices are consistent with the objectives of this Code. The details shall be documented in the operating records and retained for the lifetime of the facility.	Recorded in the PSCS or the EDRMS	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	
2	823.3 Welder Requalification Requirements	823.4 Qualification Records	823.4 Qualification Records Records of the tests that establish the qualification of a welding procedure shall be maintained as long as that procedure is in use. The operating company or contractor shall, during the construction involved, maintain a record of the welders qualified, showing the dates and results of tests.	Records of WPS and WPQ. Record of welder or weld operator symbol or records of each weld shall be retained denoting the location and welder(s) so if welds must be removed they may be located	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	
3	833 DESIGN FOR LONGITUDINAL STRESS	833.7 Flexibility Analysis for Unrestrained Piping	(a) There is no need for formal flexibility analysis for an unrestrained piping system that (1) duplicates or replaces without significant change a system operating with a successful record ... (b) Any piping system that does not meet one of the criteria in (a) should undergo a flexibility stress analysis by a simplified, approximate, or comprehensive method as deemed appropriate.	Recorded in the PSCS or the EDRMS	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	

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4	840 DESIGN, INSTALLATION, AND TESTING	840.1 General Provisions	(a) The design requirements of this Code are intended to be adequate for public safety under all conditions encountered in the gas industry. Conditions that may cause additional stress in any part of a line or its appurtenances shall be provided for, using good engineering practice. Examples of such conditions include long self-supported spans, unstable ground, mechanical or sonic vibration, weight of special attachments, earthquake induced stresses, stresses caused by temperature differences, and the soil and temperature conditions found in the Arctic. Temperature differences shall be taken as the difference between the lowest and highest expected metal temperature during pressure test and/or operating services having due regard to past recorded temperature data and the possible effects of lower or higher air and ground temperature.	Recorded in the PSCS or the EDRMS	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	
5	841.1 Steel Piping Systems Design Requirements	841.1.2 Fracture Control and Arrest	(b) Brittle Fracture Control. ... The appropriate lower test temperature shall be taken to be at or below the lowest expected metal temperature during pressure testing (if with air or gas) and during service, having regard to past recorded temperature data and possible effects of lower air and ground temperatures...	Recorded in the PSCS or the EDRMS	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	
6	841.3 Testing After Construction	841.3.2 Pressure Test Requirements to Prove Strength of Pipelines and Mains to Operate at Hoop Stresses of 30% or More of the Specified Minimum	(i) Operating companies shall retain, in their files, for the useful life of each pipeline and main, records showing the procedures used and the data developed in establishing the maximum allowable operating pressure of that pipeline or main. Refer to section N-7 of Nonmandatory Appendix N for a list of suggested records for retention.	Recorded in the PSCS or the EDRMS	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	

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No.	B31.8 Code Heading	B31.8 Code Reference	Code Text	How	Who	Applic. to System? (Y/N)
		Yield Strength of the Pipe.				
7	841.4 Commissioning of Facilities	841.4.5 Documentation and Records.	841.4.5 Documentation and Records. The following commissioning records shall be maintained as permanent records: (a) cleaning and drying procedures (b) cleaning and drying results (c) function-testing records of pipeline monitoring (d) control equipment systems (e) completed prestart checklist	Recorded in the PSCS or the EDRMS	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	
8	845.2 Control and Limiting of Gas Pressure	845.2.3 Qualification of a Steel Pipeline or Main to Establish the MAOP	(a) Pipeline Operating at 100 psig (690 kPa) or More. ... (3) Records of hydrostatic pressure tests and line repairs shall be preserved as long as the facilities involved remain in service.	Recorded in the PSCS or the EDRMS	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	
9	845.2 Control and Limiting of Gas Pressure	845.2.3 Qualification of a Steel Pipeline or Main to Establish the MAOP	(b) Pipelines Operating at Less Than 100 psig (690 kPa). (3) Records of pressure tests and line repairs shall be preserved as long as the facilities involved remain in service.	Recorded in the PSCS or the EDRMS	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	
10	845.2 Control and Limiting of Gas Pressure	845.2.6 Conversion of Low-Pressure Distribution Systems to High-Pressure Distribution Systems	(a) Before converting a low-pressure distribution system to a high-pressure distribution system, it is required that the following factors be considered: ... (2) past maintenance records, including results of any previous leakage surveys	Recorded in the PSCS or the EDRMS	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	
11	850 OPERATING AND MAINTENANCE	850.2 Basic Requirements	Each operating company having facilities within the scope of this Code shall... (f) keep records to administer the plans and training properly.	Recorded in the PSCS or the EDRMS	LANL for self-performed work and for work done at	

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No.	B31.8 Code Heading	B31.8 Code Reference	Code Text	How	Who	Applic. to System? (Y/N)
	PROCEDURES AFFECTING THE SAFETY OF GAS TRANSMISSION AND DISTRIBUTION FACILITIES				LANL; Subcontractor for work done on or offsite	
12	850 OPERATING AND MAINTENANCE PROCEDURES AFFECTING THE SAFETY OF GAS TRANSMISSION AND DISTRIBUTION FACILITIES	850.4.2 Training Program.	...Program records shall be maintained to establish what training each employee has received and the date of such training.	Recorded in the PSCS or the EDRMS	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	
13	851 PIPELINE MAINTENANCE	851.6 Pipeline Leak Records	Records shall be made covering all leaks discovered and repairs made. All pipeline breaks shall be reported in detail. These records along with leakage survey records, line patrol records, and other records relating to routine or unusual inspections shall be kept in the file of the operating company, as long as the section of line remains in service.	Recorded in the PSCS or the EDRMS	LANL	
14	852 DISTRIBUTION PIPING MAINTENANCE	852.6 Piping Maintenance Records	852.6.1 Inspection of Underground Piping. Whenever any portion or section of an existing underground distribution piping system is uncovered for operating or maintenance purposes or for the installation of new facilities, the following information shall be recorded: (a) the condition of the surface of bare pipe, if pitted or generally corroded (b) the condition of the pipe surface and of the protective coating where the coating has deteriorated to the extent that the pipe is corroding underneath (c) any damaged protective coating (d) any repairs made	Recorded in the PSCS or the EDRMS	LANL	

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15	852 DISTRIBUTION PIPING MAINTENANCE	852.6 Piping Maintenance Records	852.6.2 Cause of Cast Iron Breakage. Whenever broken cast iron facilities are uncovered, the cause of breakage, such as thermal effect, backfill, or construction by others, shall be recorded if it can be determined.	Recorded in the PSCS or the EDRMS	LANL	
16	852 DISTRIBUTION PIPING MAINTENANCE	852.6 Piping Maintenance Records	852.6.3 Analysis of Condition Records. Distribution piping condition records shall be analyzed periodically. Any indicated remedial action on the piping system shall be taken and recorded.	Recorded in the PSCS or the EDRMS	LANL	
17	853 MISCELLANEOUS FACILITIES MAINTENANCE	853.2 Procedures for Maintaining Pipe-Type and Bottle-Type Holders in Safe Operating Condition	(b) Each operating company, having prepared such a plan as prescribed in (a), shall follow the plan and keep records that detail the inspection and testing work done and the conditions found.	Recorded in the PSCS or the EDRMS	LANL	
18	853 MISCELLANEOUS FACILITIES MAINTENANCE	853.3.4 Pressure-Regulating Stations	(a) Every distribution system supplied by more than one pressure-regulating station shall be equipped with telemetering or recording pressure gages to indicate the gas pressure in the district. ... (c) If there are indications of abnormal high or low pressures, the regulator and the auxiliary equipment shall be inspected and the necessary measures shall be employed to rectify any unsatisfactory operating conditions. Suitable periodic inspections of single pressure regulation stations not equipped with telemetering or recording gages shall be made to determine that the pressure-regulating equipment is functioning properly.	Recorded in the PSCS or the EDRMS	LANL	
19	853.4 Valve Maintenance	853.4.4 Valve Records.	A record shall be maintained for locating valves covered by paras. 853.4.1 and 853.4.2. These records may be maintained on operating maps, separate files, or summary sheets, and the information on these records shall be readily accessible to personnel required to respond to emergencies.	Recorded in the PSCS or the EDRMS	LANL	
20	854 LOCATION CLASS AND CHANGES IN NUMBER	854.1 Monitoring	(c) When there is an increase in the number of buildings intended for human occupancy to or near the upper limit of the Location Class listed in Table 854.1-1 to the extent that a change in Location Class is likely, a study shall be completed within 6 months of perception of the	Recorded in the PSCS or the EDRMS	LANL	

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	OF BUILDINGS INTENDED FOR HUMAN OCCUPANCY		increase to determine the following: ... (2) the physical conditions of the pipeline or main to the extent that this can be ascertained from current tests and evaluation records.			
21	855 PIPELINE SERVICE CONVERSIONS	855.2 Historical Records Study	Review the following historical data and make an evaluation of the pipeline's condition: (a) Study all available information on the original pipeline design, inspection, and testing. Particular attention should be paid to welding procedures used and other joining methods, internal and external coating, pipe, and other material descriptions. (b) Study available operating and maintenance data including leak records, inspections, failures, cathodic protection, and internal corrosion control practices. (c) Consider the age of the pipeline and the length of time it may have been out of service in preparing a final evaluation to convert the pipeline to gas service.	Recorded in the PSCS or the EDRMS	LANL	
22	855 PIPELINE SERVICE CONVERSIONS	855.3 Requirements for Conversion to Gas Service	A steel pipeline previously used for service not subject to this Code may be qualified for service under this Code as follows: (a) Review historical records of the pipeline as indicated in para. 855.2. (b) Inspect all aboveground segments of the pipeline for physical condition. During the inspection, identify the material where possible for comparison with available records.	Recorded in the PSCS or the EDRMS	LANL	
23	855 PIPELINE SERVICE CONVERSIONS	855.5 Records of the Conversion	Maintain for the life of the pipeline a record of the studies, inspections, tests, repairs, replacements, and alterations made in connection with conversion of the existing steel pipeline to gas service under this Code.	Recorded in the PSCS or the EDRMS	LANL	
24	856 ODORIZATION	856.4 Records	For all odorizers, except small wick-type or bypass type, or similar odorizers serving individual customers or small distribution systems, each operating company shall maintain records containing the following items: (a) the type of odorant introduced into the gas (b) the amount of odorant injected per million cubic feet (m3)	Recorded in the PSCS or the EDRMS	LANL	
25	857 UPRATING	857.1 General	(c) Before increasing the maximum allowable operating pressure of a segment that has been operating at a pressure less than that determined by para. 845.2.2, the following investigative and corrective measures shall be	Recorded in the PSCS or the EDRMS	LANL	

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			taken: (1) The design, initial installation, method, and date of previous testing, Location Classes, materials, and equipment shall be reviewed to determine that the proposed increase is safe and consistent with the requirements of this Code. (2) The condition of the line shall be determined by leakage surveys, other field inspections, and examination of maintenance records. (f) Records for uprating, including each investigation required by this section, corrective action taken, and pressure test conducted, shall be retained as long as the facilities involved remain in service.			
26	857 UPRATING	857.4 Uprating a Ductile Iron High-Pressure Main or System to a New and Higher Maximum Allowable Operating Pressure	(a) The maximum allowable operating pressure of a ductile iron main or system shall not be increased to a pressure in excess of that permitted in para. 842.1.1 (a). Where records are not complete enough to permit the direct application of para. 842.1.1(a), the following procedures shall be used:	Recorded in the PSCS or the EDRMS	LANL	
27	Chapter VI Corrosion Control 860 GENERAL	860.1 Scope	(e) Records indicating cathodically protected piping, cathodic protection facilities, and other structures affected by or affecting the cathodic protection system shall be maintained by the operating company. (f) Records of tests, surveys, inspection results, leaks, etc., necessary for evaluating the effectiveness of corrosion control measures shall be maintained and retained for as long as the piping remains in service.	Recorded in the PSCS or the EDRMS	LANL	
28	Chapter VI Corrosion Control 860 GENERAL	860.2 Evaluation of Existing Installations	(b) The records available as a result of leakage surveys and normal maintenance work in accordance with paras. 852.2 and 852.6 shall be continuously reviewed for evidence of continuing corrosion.	Recorded in the PSCS or the EDRMS	LANL	
29	864 INTERNAL CORROSION CONTROL	864.1 General	... (c) Corrosion probes should be checked manually at intervals, or continuously or intermittently monitored, recorded, or both, to evaluate control of pipeline internal corrosion.	Recorded in the PSCS or the EDRMS	LANL	

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			(d) A record of the internal condition of the pipe, of leaks and repairs from corrosion, and of gas, liquids, or solids quantities and corrosivity should be kept and used as a basis for changes in the pigging schedule, inhibitor program, or gas treatment facility. ... (f) Where inspections, observation, or record analysis indicates internal corrosion is taking place to an extent that may be detrimental to public or employee safety, that portion of the system shall be repaired or reconditioned, and appropriate steps taken to mitigate the internal corrosion.			
B31.8 Documents						
30	802 SCOPE AND INTENT 802.2 Intent	802.2.2 More Complete Analysis.	(a) For design and construction, a designer may choose to use a more rigorous analysis to develop design and construction requirements. When the designer decides to take this approach, the designer shall provide to the operating company details and calculations demonstrating that design, construction, examination, and testing are consistent with the criteria of this Code. These details shall be adequate for the operating company to verify the validity of the approach and shall be approved by the operating company. The details shall be documented in the engineering design. (b) For operation and maintenance, an operating company may choose to use a more rigorous analysis to develop operation and maintenance requirements. When the operating company decides to take this approach, the operating company shall provide details and calculations demonstrating that such alternative practices are consistent with the objectives of this Code. The details shall be documented in the operating records and retained for the lifetime of the facility.	Recorded in the PSCS or the EDRMS	LANL	
31	807 TRAINING AND QUALIFICATION OF PERSONNEL	807.1 Program	(h) Identify the documentation requirements needed to adequately manage the program.	Recorded in the PSCS or the EDRMS	LANL	

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32	841 STEEL PIPE 841.3 Testing After Construction	841.4.5 Documentation and Records	The following commissioning records shall be maintained as permanent records: (a) cleaning and drying procedures (b) cleaning and drying results (c) function-testing records of pipeline monitoring (d) control equipment systems (e) completed prestart checklist	Recorded in the PSCS or the EDRMS	LANL	
33	850 OPERATING AND MAINTENANCE PROCEDURES AFFECTING THE SAFETY OF GAS TRANSMISSION AND DISTRIBUTION FACILITIES	850.4 Essential Features of the Emergency Plan 850.4.1 Written Emergency Procedures	(i) reporting and documenting the emergency	Recorded in the PSCS or the EDRMS	LANL	
34		850.8 Damage Prevention Program	(e) monitoring of excavation activities, as well as direct observation of excavation. Consideration should be given to the frequency of monitoring, criteria for continual observation, actions if the excavator refuses to follow operating company requirements, and documentation to be maintained during observations.	Recorded in the PSCS or the EDRMS	LANL	
35	851 PIPELINE MAINTENANCE	851.4 Repair Procedures for Steel Pipelines	Evaluation of pipeline defects and associated repair methods are discussed in paras. 851.4.1 through 851.4.5. Additional guidance may be found in ASME PCC-2, Repair of Pressure Equipment and Piping, and in the following PRCI documents: Pipeline Repair Manual (original or updated version), and Pipeline Defect Assessment — A Review and Comparison of Commonly Used Methods. Information on these documents is found in Mandatory Appendix A. Repair materials or equipment for which no standards or specifications are referenced in this Code shall only be permitted if qualified in accordance with para. 811.2.4. Such repairs shall be described in detail in documentation that is retained by the operating company.	Recorded in the PSCS or the EDRMS	LANL	
B31.8 Operating Company						

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36	807 TRAINING AND QUALIFICATION OF PERSONNEL	807.1 Program	Each operating company shall have a program to manage the qualification of personnel who perform operating, maintenance, and construction activities that could impact the safety or integrity of a pipeline. The program shall address, at a minimum, the following elements: ...	Recorded in the PSCS or the EDRMS	LANL	
37	807 TRAINING AND QUALIFICATION OF PERSONNEL	807.2 Operating and Maintenance Functions	In addition to the requirements in para. 807.1, each operating company shall provide training for employees in procedures established for operating and maintenance functions. The training shall be comprehensive and designed to prepare employees for service in their area of responsibility.	Recorded in the PSCS or the EDRMS	LANL	
38	823 QUALIFICATION OF PROCEDURES AND WELDERS	823.4 Qualification Records	Records of the tests that establish the qualification of a welding procedure shall be maintained as long as that procedure is in use. The operating company or contractor shall, during the construction involved, maintain a record of the welders qualified, showing the dates and results of tests.	Records of WPS and WPQ. Record of welder or weld operator symbol or records of each weld shall be retained denoting the location and welder(s) so if welds must be removed they may be located	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	
39	826 WELD INSPECTION REQUIREMENTS	826.3 Inspection and Tests for Quality Control of Welds on Piping Systems Intended to Operate at Hoop Stress Levels of 20% or More of the Specified Minimum Yield Strength	The following minimum number of field butt welds shall be selected on a random basis by the operating company from each day's construction for examination. Each weld so selected shall be examined over its entire circumference or else the equivalent length of welds shall be examined if the operating company chooses to examine only a part of the circumference of each. The same minimum percentages shall be examined for double ending at railhead or yard.	Recorded in the PSCS or the EDRMS	LANL	

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40	841 STEEL PIPE 841.2 Installation of Steel Pipelines and Mains	841.2.2 Inspection Provisions	(a) The operating company shall provide suitable inspection. Inspectors shall be qualified either by experience or training. The inspector shall have the authority to order the repair or removal and replacement of any component found that fails to meet the standards of this Code.	Recorded in the PSCS or the EDRMS	LANL	
41	841 STEEL PIPE 841.2 Installation of Steel Pipelines and Mains	841.3.2 Pressure Test Requirements to Prove Strength of Pipelines and Mains to Operate at Hoop Stresses of 30% or More of the Specified Minimum Yield Strength of the Pipe.	(f) In selecting the test pressure, the designer or operating company should be aware of the provisions of section 854 and the relationship between test pressure and operating pressure when the pipeline experiences a future increase in the number of dwellings intended for human occupancy.	Recorded in the PSCS or the EDRMS	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	
42	841 STEEL PIPE 841.2 Installation of Steel Pipelines and Mains	Table 841.3.2-1 Test Requirements for Steel Pipelines and Mains to Operate at Hoop Stresses of 30% or More of the Specified Minimum Yield Strength of the Pipe	(a) This Table defines the relationship between test pressures and maximum allowable operating pressures subsequent to the test. If an operating company decides that the maximum operating pressure will be less than the design pressure, a corresponding reduction in the prescribed test pressure may be made as indicated in the Pressure Test Prescribed, Minimum column. If this reduced test pressure is used, however, the maximum operating pressure cannot later be raised to the design pressure without retesting the line to a higher test pressure. See paras. 805.2.1, 845.2.2, and 845.2.3.	Recorded in the PSCS or the EDRMS	LANL	
43	843 COMPRESSOR STATIONS 843.1 Compressor Station Design	843.1.1 Location of Compressor Building.	Except for offshore pipelines, the main compressor building for gas compressor stations should be located at such clear distances from adjacent property not under control of the operating company as to minimize the hazard of communication of fire to the compressor building from structures on adjacent property. Sufficient	Recorded in the PSCS or the EDRMS	LANL	

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			open space should be provided around the building to permit the free movement of firefighting equipment.			
44	844 PIPE-TYPE AND BOTTLE-TYPE HOLDERS	844.1 Pipe-Type Holders in Rights-of-Way Not Under Exclusive Use and Control of the Operating Company	A pipe-type holder that is to be installed in streets, highways, or in private rights-of-way not under the exclusive control and use of the operating company shall be designed, installed, and tested in accordance with the provisions of this Code applicable to a pipeline installed in the same location and operated at the same maximum pressure.	Recorded in the PSCS or the EDRMS	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	
45	844 PIPE-TYPE AND BOTTLE-TYPE HOLDERS	844.2 Bottle-Type Holders	Bottle-type holders shall be located on land owned or under the exclusive control and use of the operating company.	Recorded in the PSCS or the EDRMS	LANL	
46	844 PIPE-TYPE AND BOTTLE-TYPE HOLDERS	844.3 Pipe-Type and Bottle-Type Holders on Property Under the Exclusive Use and Control of the Operating Company	(a) The storage site shall be entirely surrounded with fencing to prevent access by unauthorized persons. (b) A pipe-type or bottle-type holder that is to be installed on property under the exclusive control and use of the operating company shall be designed in accordance with construction design factors. The selection of these factors depends on the Location Class in which the site is situated, the clearance between the pipe containers or bottles and the fence, and the maximum operating pressure, as shown in Table 844.3-1. ...	Recorded in the PSCS or the EDRMS	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	
47	849 GAS SERVICE LINES	849.1.2 Types of Valves Suitable for Service Line Valves	(e) The operating company shall make certain that the service line valves installed on high-pressure service lines are suitable for this use either by making their own tests or by reviewing the tests made by the manufacturers.	Recorded in the PSCS or the EDRMS	LANL	
48	850 OPERATING AND MAINTENANCE PROCEDURES AFFECTING THE SAFETY OF GAS TRANSMISSION	850.1 General	(a) Because of many variables, it is not possible to prescribe in a code a detailed set of operating and maintenance procedures that will encompass all cases. It is possible, however, for each operating company to develop operating and maintenance procedures based on the provisions of this Code, its experience, and its knowledge of its facilities and conditions under which they are operated that will be adequate from the standpoint of public safety. For operating and maintenance procedures relating to corrosion control,	Recorded in the PSCS or the EDRMS	LANL	

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	AND DISTRIBUTION FACILITIES		see Chapter VI. (b) Upon initiating gas service in a pipeline designed and constructed or converted to gas service in accordance with this Code, the operating company shall determine the Location Class in accordance with Table 854.1-1.			
49	850 OPERATING AND MAINTENANCE PROCEDURES AFFECTING THE SAFETY OF GAS TRANSMISSION AND DISTRIBUTION FACILITIES	850.2 Basic Requirements	Each operating company having facilities within the scope of this Code shall (a) have a written plan covering operating and maintenance procedures in accordance with the scope and intent of this Code. (b) have a written emergency plan covering facility failure or other emergencies. (c) operate and maintain its facilities in conformance with these plans. (d) modify the plans periodically as experience dictates and as exposure of the public to the facilities and changes in operating conditions require. (e) provide training for employees in procedures established for their operating and maintenance functions that is comprehensive and designed to prepare employees for service in their area of responsibility. See section 807 for guidance on the training and qualification of personnel performing tasks that could impact the safety or integrity of a pipeline. (f) keep records to administer the plans and training properly.	Recorded in the PSCS or the EDRMS	LANL	
50	850 OPERATING AND MAINTENANCE PROCEDURES AFFECTING THE SAFETY OF GAS TRANSMISSION AND DISTRIBUTION FACILITIES	850.4 Essential Features of the Emergency Plan 850.4.1 Written Emergency Procedures.	Each operating company shall establish written procedures that will provide the basis for instructions to appropriate operating and maintenance personnel that will minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures shall provide for the following: (a) a system for receiving, identifying, and classifying emergencies that require immediate response by the operating company (b) indicating clearly the responsibility for instructing employees in the procedures listed in the emergency plans and for training employees in the execution of those procedures (c) indicating clearly those responsible for updating the plan (d) establishing a plan for prompt and adequate handling of all calls that concern emergencies whether they are from customers, the public, company employees, or	Recorded in the PSCS or the EDRMS	LANL	

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			other sources (e) establishing a plan for the prompt and effective response to a notice of each type of emergency (f) controlling emergency situations, including the action to be taken by the first employee arriving at the scene (g) the dissemination of information to the public (h) the safe restoration of service to all facilities affected by the emergency after proper corrective measures have been taken (i) reporting and documenting the emergency			
51	850 OPERATING AND MAINTENANCE PROCEDURES AFFECTING THE SAFETY OF GAS TRANSMISSION AND DISTRIBUTION FACILITIES	850.4.2 Training Program.	Each operating company shall have a program for informing, instructing, and training employees responsible for executing emergency procedures. The program shall acquaint the employee with the emergency procedures and how to promptly and effectively handle emergency situations. ...	Recorded in the PSCS or the EDRMS	LANL	
52	850 OPERATING AND MAINTENANCE PROCEDURES AFFECTING THE SAFETY OF GAS TRANSMISSION AND DISTRIBUTION FACILITIES	850.4.3 Liaison	(a) Each operating company shall establish and maintain liaison with appropriate fire, police, and other public officials, entities in or near the pipeline right-of-way (e.g., electrical and other utilities, highway authorities, and railroads), and news media. See para. 850.9.1 for additional guidance. (b) Each operating company must have a means of communication with appropriate public officials during an emergency. (c) Emergency procedures, including the contingency plan under para. B854.5(e), must be prepared in coordination with appropriate public officials.	Recorded in the PSCS or the EDRMS	LANL	
53	850 OPERATING AND MAINTENANCE	850.5 Pipeline Failure Investigation	Each operating company shall establish procedures to analyze all failures and accidents for determining the cause and to minimize the possibility of a recurrence. This plan shall include a procedure to select samples of the failed facility or equipment for laboratory examination when necessary.	Recorded in the PSCS or the EDRMS	LANL	

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No.	B31.8 Code Heading	B31.8 Code Reference	Code Text	How	Who	Applic. to System? (Y/N)
	PROCEDURES AFFECTING THE SAFETY OF GAS TRANSMISSION AND DISTRIBUTION FACILITIES					
54	850 OPERATING AND MAINTENANCE PROCEDURES AFFECTING THE SAFETY OF GAS TRANSMISSION AND DISTRIBUTION FACILITIES	850.6 Prevention of Accidental Ignition	Smoking and all open flames shall be prohibited in and around structures, or areas under the control of the operating company containing gas facilities (such as compressor stations, meter and regulator stations, and other gas handling equipment), where possible leakage of gas constitutes a hazard of fire or explosion. Each operating company shall take steps to minimize the danger of accidental ignition of gas. ...	Recorded in the PSCS or the EDRMS	LANL	
55	850 OPERATING AND MAINTENANCE PROCEDURES AFFECTING THE SAFETY OF GAS TRANSMISSION AND DISTRIBUTION FACILITIES	850.7 Blasting Effects	Each operating company shall establish procedures for protection of facilities in the vicinity of blasting activities. The operating company shall	Recorded in the PSCS or the EDRMS	LANL	
56	850 OPERATING AND MAINTENANCE	850.8 Damage Prevention Program	Each operating company shall have a program to reduce the risk associated with damage to gas facilities resulting from excavation activities. Operators should consider including the following actions in the program: (e) monitoring of excavation activities, as well as direct observation of excavation. Consideration should be given	Recorded in the PSCS or the EDRMS	LANL	

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No.	B31.8 Code Heading	B31.8 Code Reference	Code Text	How	Who	Applic. to System? (Y/N)
	PROCEDURES AFFECTING THE SAFETY OF GAS TRANSMISSION AND DISTRIBUTION FACILITIES		to the frequency of monitoring, criteria for continual observation, actions if the excavator refuses to follow operating company requirements, and documentation to be maintained during observations.			
57	850 OPERATING AND MAINTENANCE PROCEDURES AFFECTING THE SAFETY OF GAS TRANSMISSION AND DISTRIBUTION FACILITIES	850.9 Communication Plan	The operator shall develop and implement a communications plan to provide operating company personnel, jurisdictional authorities, emergency response officials, potential excavators, public officials, and the public with pipeline safety information to help keep communities near pipelines safe. The information may be communicated as part of other required communications.	Recorded in the PSCS or the EDRMS	LANL	
58	850 OPERATING AND MAINTENANCE PROCEDURES AFFECTING THE SAFETY OF GAS TRANSMISSION AND DISTRIBUTION FACILITIES	850.9.1 External Communications	The following items should be considered for communication to the various interested parties, such as landowners and tenants along the rights-of-way, public officials, local and regional emergency responders, general public, excavators, and one-call centers: (a) operating company name, location, and contact information (both routine and emergency contacts)	Recorded in the PSCS or the EDRMS	LANL	
59	850 OPERATING AND MAINTENANCE	850.9.2 Internal Communications.	Operating company management and other appropriate personnel should understand and support the operation and maintenance efforts, damage prevention program, emergency response program, and integrity management program.	Recorded in the PSCS or the EDRMS	LANL	

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No.	B31.8 Code Heading	B31.8 Code Reference	Code Text	How	Who	Applic. to System? (Y/N)
	PROCEDURES AFFECTING THE SAFETY OF GAS TRANSMISSION AND DISTRIBUTION FACILITIES					
60	851 PIPELINE MAINTENANCE	851.1 Periodic Surveillance of Pipelines	As a means of maintaining the integrity of its pipeline system, each operating company shall establish and implement procedures for periodic surveillance of its facilities. Studies shall be initiated and appropriate action shall be taken where unusual operating and maintenance conditions occur, such as failures, leakage history, drop in flow efficiency due to internal corrosion, or substantial changes in cathodic protection requirements.	Recorded in the PSCS or the EDRMS	LANL	
61	851 PIPELINE MAINTENANCE	851.2 Pipeline Patrolling	Each operating company shall maintain a periodic pipeline patrol program to observe surface conditions on and adjacent to each pipeline right-of-way, indications of leaks, construction activity other than that performed by the company, natural hazards, and any other factors affecting the safety and operation of the pipeline. Patrols shall be performed at least once every year in Location Classes 1 and 2, at least once every 6 months in Location Class 3, and at least once every 3 months in Location Class 4. ...	Recorded in the PSCS or the EDRMS	LANL	
62	851 PIPELINE MAINTENANCE	851.2.1 Maintenance of Cover at Road Crossings and Drainage Ditches.	The operating company shall determine by periodic surveys if the cover over the pipeline at road crossings and drainage ditches has been reduced below the requirements of the original design. If the operating company determines that the normal cover provided at the time of pipeline construction has become unacceptably reduced due to earth removal or line movement, the operating company shall provide additional protection by providing barriers, culverts, concrete pads, casing, lowering of the line, or other suitable means.	Recorded in the PSCS or the EDRMS	LANL	

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No.	B31.8 Code Heading	B31.8 Code Reference	Code Text	How	Who	Applic. to System? (Y/N)
63	851 PIPELINE MAINTENANCE	851.2.2 Maintenance of Cover in Cross-Country Terrain.	If the operating company learns, as a result of patrolling, that the cover over the pipeline in cross country terrain does not meet the original design, it shall determine whether the cover has been reduced to an unacceptable level. If the level is unacceptable, the operating company shall provide additional protection by replacing cover, lowering the line, or other suitable means.	Recorded in the PSCS or the EDRMS	LANL	
64	851 PIPELINE MAINTENANCE	851.4 Repair Procedures for Steel Pipelines	Repair materials or equipment for which no standards or specifications are referenced in this Code shall only be permitted if qualified in accordance with para. 811.2.4. Such repairs shall be described in detail in documentation that is retained by the operating company.	Recorded in the PSCS or the EDRMS	LANL for self-performed work and for work done at LANL by Subcontractor	
65	851 PIPELINE MAINTENANCE	851.6 Pipeline Leak Records	Records shall be made covering all leaks discovered and repairs made. All pipeline breaks shall be reported in detail. These records along with leakage survey records, line patrol records, and other records relating to routine or unusual inspections shall be kept in the file of the operating company, as long as the section of line remains in service.	Recorded in the PSCS or the EDRMS	LANL for self-performed work and for work done at LANL by Subcontractor	
66	851 PIPELINE MAINTENANCE	851.7 Pipeline Markers	(c) The signs or markers shall include the words "Gas (or name of gas transported) Pipeline," the name of the operating company, and the telephone number (including area code) where the operating company can be contacted.	Signs	LANL	
67	852 DISTRIBUTION PIPING MAINTENANCE	852.2 Leakage Surveys	Each operating company having a gas distribution system shall set up in its operating and maintenance plan a provision for making periodic leakage surveys on the system.	Recorded in the PSCS or the EDRMS	LANL	
68	852 DISTRIBUTION PIPING MAINTENANCE	852.4 Requirements for Abandoning, Disconnecting, and Reinstating Distribution Facilities	Each operating company shall have a plan for abandoning inactive facilities, such as service lines, mains, control lines, equipment, and appurtenances for which there is no planned use. The plan shall also include the following provisions: ... a) If the facilities are abandoned in place, they shall be physically disconnected from the piping system. ... If air is used for purging, the operating company shall determine that a combustible mixture is not present after purging.	Recorded in the PSCS or the EDRMS	LANL	

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No.	B31.8 Code Heading	B31.8 Code Reference	Code Text	How	Who	Appl. to System? (Y/N)
		852.4.1 Abandoning of Distribution Facilities.				
69	852 DISTRIBUTION PIPING MAINTENANCE	852.4.2 Temporarily Disconnected Service	Whenever service to a customer is temporarily discontinued, one of the following shall be complied with: (a) The valve that is closed to prevent the flow of gas to the customer shall be provided with a locking device or other means designed to prevent the opening of the valve by persons other than those authorized by the operating company. ...	Recorded in the PSCS or the EDRMS	LANL	
70	852 DISTRIBUTION PIPING MAINTENANCE	852.7.4 Disturbed Pipeline Support.	When an operating company has knowledge that the support for a segment of a buried cast iron pipeline is disturbed	Recorded in the PSCS or the EDRMS	LANL	
71	853 MISCELLANEOUS FACILITIES MAINTENANCE 853.1 Compressor Station Maintenance	853.1.1 Compressors and Prime Movers	The starting, operating, and shutdown procedures for all gas compressor units shall be established by the operating company. The operating company shall take appropriate steps to see that the approved practices are followed.	Recorded in the PSCS or the EDRMS	LANL	
72	853 MISCELLANEOUS FACILITIES MAINTENANCE 853.1 Compressor Station Maintenance	853.1.4 Isolation of Equipment for Maintenance or Alterations.	The operating company shall establish procedures for isolation of units or sections of piping for maintenance, and for purging prior to returning units to service, and shall follow these established procedures in all cases.	Recorded in the PSCS or the EDRMS	LANL	
73	853 MISCELLANEOUS FACILITIES MAINTENANCE	853.2 Procedures for Maintaining Pipe-Type and	(a) Each operating company having a pipe-type or bottle-type holder shall prepare and place in its files a plan for the systematic, routine inspection and testing of the facilities that has the following provisions: ...	Recorded in the PSCS or the EDRMS	LANL	

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No.	B31.8 Code Heading	B31.8 Code Reference	Code Text	How	Who	Appl. to System? (Y/N)
		Bottle-Type Holders in Safe Operating Condition	(b) Each operating company, having prepared such a plan as prescribed in (a), shall follow the plan and keep records that detail the inspection and testing work done and the conditions found.			
74	853 MISCELLANEOUS FACILITIES MAINTENANCE	853.3.4 Pressure-Regulating Stations	(b) On distribution systems supplied by a single pressure- regulating station, the operating company shall determine the necessity of installing such gages in the district. In making this determination, the operating company shall take into consideration the operating conditions such as the number of customers supplied, the operating pressures, the capacity of the installation, etc.	Recorded in the PSCS or the EDRMS	LANL	
75	853 MISCELLANEOUS FACILITIES MAINTENANCE	853.4.5 Prevention of Accidental Operation.	Precautions shall be taken to prevent accidental operation of any valve covered by paras. 853.4.1 and 853.4.2. Accidental valve operation by operating company personnel and the general public should be considered in taking these precautions. Some recommended actions to be taken, where applicable, are as follows:	Recorded in the PSCS or the EDRMS	LANL	
76	854 LOCATION CLASS AND CHANGES IN NUMBER OF BUILDINGS INTENDED FOR HUMAN OCCUPANCY	854.1 Monitoring	(d) Following this study, if a change of Location Class is indicated, the patrols and leakage surveys shall immediately be adjusted to the intervals established by the operating company for the new Location Class.	Recorded in the PSCS or the EDRMS	LANL	
77	854 LOCATION CLASS AND CHANGES IN NUMBER OF BUILDINGS INTENDED FOR HUMAN OCCUPANCY	854.5 Concentrations of People in Location Classes 1 and 2	(b) Pipelines near places of public assembly as outlined in (a) above shall have a maximum allowable hoop stress not exceeding 50% of SMYS. Alternatively, the operating company may make the study described in para. 854.1(c) and determine that compliance with the following will result in an adequate level of safety: (2) Patrols and leakage surveys are conducted at intervals consistent with those established by the operating company for Location Class 3. ...	Recorded in the PSCS or the EDRMS	LANL	

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No.	B31.8 Code Heading	B31.8 Code Reference	Code Text	How	Who	Appl. to System? (Y/N)
78	855 PIPELINE SERVICE CONVERSIONS	855.3 Requirements for Conversion to Gas Service	(e) Make replacements, repairs, or alterations that in the operating company's judgment are advisable.	Recorded in the PSCS or the EDRMS	LANL	
79	856 ODORIZATION	856.2 Odorization Equipment	Each operating company shall use odorization equipment designed for the type and injection rate of odorant being used.	Recorded in the PSCS or the EDRMS	LANL	
80	856 ODORIZATION	856.3 Odorant Requirements	Each operating company shall use an odorant in accordance with the following requirements: ...	Recorded in the PSCS or the EDRMS	LANL	
81	856 ODORIZATION	856.4 Records	For all odorizers, except small wick-type or bypasstype, or similar odorizers serving individual customers or small distribution systems, each operating company shall maintain records containing the following items: (a) the type of odorant introduced into the gas (b) the amount of odorant injected per million cubic feet (m3)	Recorded in the PSCS or the EDRMS	LANL	
82	856 ODORIZATION	856.5 Odorant Concentration Tests	Each operating company shall conduct odorant concentration tests on gas supplied through its facilities that requires odorization. ...	Recorded in the PSCS or the EDRMS	LANL	
83	857 UPGRADING	857.1 General	(a) A higher maximum allowable operating pressure established under this section may not exceed the design pressure of the weakest element in the segment to be upgraded. It is not intended that the requirements of this Code be applied retroactively to such items as road crossings, fabricated assemblies, minimum cover, and valve spacings. Instead, the requirements for these items shall meet the criteria of the operating company before the upgrading is performed.	Recorded in the PSCS or the EDRMS	LANL	
84	860 GENERAL	860.1 Scope	(c) Deviations from the provisions of this Chapter are permissible in specific situations, provided the operating company can demonstrate that the objectives expressed herein have been achieved. (d) Corrosion control requirements and procedures may, in many instances, require measures in addition to those shown in this Chapter. Each operating company shall establish procedures to implement its corrosion control program, including the requirements of this Chapter, to achieve the desired objectives. Procedures, including those for design, installation, and maintenance of cathodic	Recorded in the PSCS or the EDRMS	LANL	

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No.	B31.8 Code Heading	B31.8 Code Reference	Code Text	How	Who	Applic. to System? (Y/N)
			protection systems, shall be prepared and implemented by, or under the direction of, persons qualified by training and/or experience in corrosion control methods. ... (e) Records indicating cathodically protected piping, cathodic protection facilities, and other structures affected by or affecting the cathodic protection system shall be maintained by the operating company.			
85	867 STRESS CORROSION AND OTHER PHENOMENA	867 STRESS CORROSION AND OTHER PHENOMENA	This paragraph must be limited to general statements rather than specific limits in regard to stress corrosion. Stress corrosion is currently the subject of investigative research programs, and more specific data will certainly be available to the pipeline designer and operating company in the future. In the interim, this Code suggests that the user refer to the current state of the art. Cathodic protection current levels, quality of pipe surface preparation and coating, operating temperatures, stress levels, and soil conditions shall be considered in pipeline design and operations.	Recorded in the PSCS or the EDRMS	LANL	
B31.8 Qualifications						
86	802 SCOPE AND INTENT	802.2.6 Qualification of Those Performing Inspections.	Individuals who perform inspections shall be qualified by training and/or experience to implement the applicable requirements and recommendations of this Code.	Recorded in the PSCS or the EDRMS	LANL	
87	807 TRAINING AND QUALIFICATION OF PERSONNEL	807.1 Program	Each operating company shall have a program to manage the qualification of personnel who perform operating, maintenance, and construction activities that could impact the safety or integrity of a pipeline. The program shall address, at a minimum, the following elements: (a) Identify those tasks for which the qualification provisions of the program apply. The tasks shall include operating, maintenance, and construction activities that could impact the safety or integrity of a pipeline. ... (c) Identify training requirements for personnel involved in performing tasks covered by the program. (d) Describe the evaluation process and criteria used to determine (1) initial qualification (2) subsequent or ongoing qualification (3) suspension or revocation of	Recorded in the PSCS or the EDRMS	LANL	

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No.	B31.8 Code Heading	B31.8 Code Reference	Code Text	How	Who	Appl. to System? (Y/N)
			qualifications (4) reinstatement of qualifications (e) Establish organizational responsibilities for carrying out each program element. (f) Establish a process to periodically evaluate the effectiveness of the qualification program, including provisions for updating the program based on the results of effectiveness appraisals.			
88	811 QUALIFICATION OF MATERIALS AND EQUIPMENT	811.1 Categories	Materials and equipment fall into the following six categories pertaining to methods of qualification for use under this Code:	Recorded in the PSCS or the EDRMS	LANL for self-performed work and for work done at LANL by Subcontractor for work done on or offsite	
89	811 QUALIFICATION OF MATERIALS AND EQUIPMENT	811.2 Procedures for Qualification	Prescribed procedures for qualifying each of these six categories are given in the following paragraphs.	Variance/Alternative Method Form 2137 as Alternative Method	LANL Owner approved, COE website storage	
90	811 QUALIFICATION OF MATERIALS AND EQUIPMENT	811.2.1 Conformance.	811.2.1 Conformance. Items that conform to standards or specifications referenced in this Code [para. 811.1(a)] may be used for appropriate applications, as prescribed and limited by this Code without further qualification. (See section 814.)	Variance/Alternative Method Form 2137 as Alternative Method	LANL Owner approved, COE website storage	
91	814 MATERIAL SPECIFICATIONS	814.1.4 Qualification of Plastic Piping Materials	(a) In addition to complying with the provisions of para. 814.1.3, the user shall thoroughly investigate the specific plastic pipe, tubing, or fitting to be used and shall determine material serviceability for the conditions anticipated. The selected material shall be adequately resistant to the liquids and chemical atmospheres that may be encountered. (b) When plastic pipe, tubing, or fittings of different material specifications are joined, a thorough investigation shall be made to determine that the materials are compatible with each other. See para. 842.2.9 for joining requirements.	Recorded in the PSCS or the EDRMS	LANL for self-performed work and for work done at LANL by Subcontractor for work done on or offsite	

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No.	B31.8 Code Heading	B31.8 Code Reference	Code Text	How	Who	Applic. to System? (Y/N)
92	Chapter II Welding 821 GENERAL	821.1 Welding Processes	The welding may be done by any process or combination of processes that produce welds that meet the procedure qualification requirements of this Code. The welds may be produced by position welding or roll welding, or a combination of position and roll welding.	Records of WPS and WPQ. Record of welder or weld operator symbol or records of each weld shall be retained denoting the location and welder(s) so if welds must be removed they may be located	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	
93	Chapter II Welding 821 GENERAL	821.4 Welding Qualifications	All welding procedures and welder qualifications shall be in accordance with section 823.	Records of WPS and WPQ. Record of welder or weld operator symbol or records of each weld shall be retained denoting the location and welder(s) so if welds must be removed they may be located	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	
94	823 QUALIFICATION OF PROCEDURES AND WELDERS	823.1 Requirements for Qualifying Welders on Piping Systems Operating at Hoop Stresses of Less Than 20% of the Specified Minimum Yield Strength	Welders whose work is limited to piping operating at hoop stress levels of less than 20% of the specified minimum yield strength shall be qualified under any of the references given in para. 823.2.1 or in accordance with Mandatory Appendix G.	Records of WPS and WPQ. Record of welder or weld operator symbol or records of each weld shall be retained denoting the location and welder(s) so if welds must be removed they may be located	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	
95	823 QUALIFICATION OF	823.2 Requirements for Qualifying Procedures	Welding procedures and welders performing work for new construction and out-of-service pipelines shall be qualified under the BPV Code, Section IX or API 1104. For in-service welding, welding procedures and welders	Records of WPS and WPQ. Record of welder or weld operator	LANL for self-performed work and for work done at	

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No.	B31.8 Code Heading	B31.8 Code Reference	Code Text	How	Who	Applic. to System? (Y/N)
	PROCEDURES AND WELDERS	and Welders on Piping Systems Operating at Hoop Stresses of 20% or More of the Specified Minimum Yield Strength 823.2.1 Qualifying Standards	shall be qualified under Appendix B of API 1104. Procedures qualified under Appendix B are suitable for weld deposition repair, provided the procedure is appropriate for the remaining wall thickness to which it is being applied.	symbol or records of each weld shall be retained denoting the location and welder(s) so if welds must be removed they may be located	LANL; Subcontractor for work done on or offsite	
96	823 QUALIFICATION OF PROCEDURES AND WELDERS	823.2.2 Compressor Station Piping.	When welders qualified under API 1104 are employed on compressor station piping, their qualification shall have been based on the destructive mechanical test requirements of API 1104.	Records of WPS and WPQ. Record of welder or weld operator symbol or records of each weld shall be retained denoting the location and welder(s) so if welds must be removed they may be located	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	
97	823 QUALIFICATION OF PROCEDURES AND WELDERS	823.2.3 Variables for the Separate Qualification of Welders.	The references given in para. 823.2.1 contain sections titled "Essential Variables" applicable to welder qualification. These shall be followed, except that for purposes of this Code, all carbon steels that have a carbon content not exceeding 0.32% by heat analysis and a carbon equivalent (C + 1/4 Mn) not exceeding 0.65% by heat analysis are considered to come under material grouping P-No. 1. Alloy steels having weldability characteristics demonstrated to be similar to these carbon steels shall be welded, preheated, and stress relieved as prescribed herein for such carbon steel. There may be significant differences in the base metal strength encompassed by these P-No. 1 materials, and although it is not an essential variable to welder	Records of WPS and WPQ. Record of welder or weld operator symbol or records of each weld shall be retained denoting the location and welder(s) so if welds must be removed they may be located	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	

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No.	B31.8 Code Heading	B31.8 Code Reference	Code Text	How	Who	Applic. to System? (Y/N)
			qualification, it may require separate procedure qualification in accordance with para. 823.2.1.			
98	823 QUALIFICATION OF PROCEDURES AND WELDERS	823.3 Welder Requalification Requirements	Welder requalification tests shall be required if there is some specific reason to question a welder's ability or if the welder is not engaged in a given process of welding for 6 months or more. All welders shall be requalified at least once each year.	Records of WPS and WPQ. Record of welder or weld operator symbol or records of each weld shall be retained denoting the location and welder(s) so if welds must be removed they may be located	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	
99	823 QUALIFICATION OF PROCEDURES AND WELDERS	823.4 Qualification Records	Records of the tests that establish the qualification of a welding procedure shall be maintained as long as that procedure is in use. The operating company or contractor shall, during the construction involved, maintain a record of the welders qualified, showing the dates and results of tests.	Records of WPS and WPQ. Record of welder or weld operator symbol or records of each weld shall be retained denoting the location and welder(s) so if welds must be removed they may be located	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	
100	841 STEEL PIPE	841.1.9 Additional Design Information or Instructions	(j) Pipeline Installation by Directional Drilling (1) Qualifications. Drilling contractors shall maintain written design and installation procedures addressing crossings to be completed by the directional drilling method. Drilling equipment operators and personnel responsible for establishing the location of the pilot head and reamer during drilling operations shall be qualified by training and experience in the implementation of the contractor's procedures.	Recorded in the PSCS or the EDRMS	LANL for self-performed work and for work done at LANL; Subcontractor for work done on or offsite	
101	845 CONTROL AND LIMITING OF GAS PRESSURE	845.2.3 Qualification of a Steel Pipeline or Main to	(a) Pipeline Operating at 100 psig (690 kPa) or More. This paragraph applies to existing natural gas pipelines or to existing pipelines being converted to natural gas service where one or more factors of the steel pipe design formula (see para. 841.1.1) is unknown, and the	Recorded in the PSCS or the EDRMS	LANL	

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No.	B31.8 Code Heading	B31.8 Code Reference	Code Text	How	Who	Applic. to System? (Y/N)
		Establish the MAOP	pipeline is to be operated at 100 psig (690 kPa) or more. The maximum allowable operating pressure shall be determined by hydrostatic testing of the pipeline. ...			
102	850 OPERATING AND MAINTENANCE PROCEDURES AFFECTING THE SAFETY OF GAS TRANSMISSION AND DISTRIBUTION FACILITIES	850.2 Basic Requirements	(e) provide training for employees in procedures established for their operating and maintenance functions that is comprehensive and designed to prepare employees for service in their area of responsibility. See section 807 for guidance on the training and qualification of personnel performing tasks that could impact the safety or integrity of a pipeline.	Recorded in the PSCS or the EDRMS	LANL	
103	855 PIPELINE SERVICE CONVERSIONS	855.1 General	The intent of this section is to provide requirements to allow an operator of a steel pipeline previously used for service not covered by this Code to qualify that pipeline for service under this Code. For a dual service pipeline used alternately to transport liquids in conformance with an appropriate Code, such as ASME B31.4, and gas under this Code, only the initial conversion to gas service requires qualification testing.	Recorded in the PSCS or the EDRMS	LANL	