

Ind 41,42

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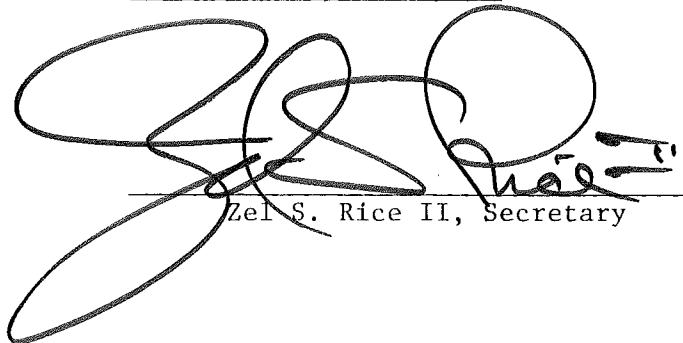
STATE OF WISCONSIN)
) SS
DEPARTMENT OF INDUSTRY,)
LABOR AND HUMAN RELATIONS)

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Zel S. Rice II, Secretary of the Department of Industry, Labor and Human Relations, and custodian of the official records of said department, do hereby certify that the attached rules to Wisconsin Administrative Code Chapters Ind 41-42--Boiler and Pressure Vessel Code, were adopted by this department on March 7, 1978.

I further certify that said copy has been compared by me with the original on file in this department and that the same is a true copy thereof and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the department at the Capitol, in the City of Madison, this 7th day of March, A.D., 1978


Zel S. Rice II, Secretary

ORDER OF
DEPARTMENT OF INDUSTRY, LABOR AND HUMAN RELATIONS

Pursuant to authority vested in the Department of Industry, Labor and Human Relations by sections 101.01 to 101.211, Wis. Stats., the Department of Industry, Labor and Human Relations hereby amends, creates, repeals, repeals and recreates, and adopts rules of Wisconsin Administrative Code Chapters Ind 41-42--Boiler and Pressure Vessel Code.

The rules attached hereto shall become effective on the first day of the month following publication in the Wisconsin Administrative Register as provided in section 227.026, Wis. Stats.

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Chapter heading amended to read:

CHAPTER IND 41
SCOPE, GENERAL RULES, NEW AND
EXISTING INSTALLATIONS

Amend PART I heading to read: PART I
 SCOPE AND DEFINITIONS

Subsection Ind 41.01 (1) is amended to read:

- (1) The provisions of this code apply to boilers, pressure vessels and piping components associated with boilers in use at places of employment and in public buildings.

Note: Section 101.01 (2), Stats., provides that the phrase "place of employment" means and includes every place, whether indoors or out or underground and the premises appurtenant thereto where either temporarily or permanently any industry, trade or business is carried on, or where any process or operation, directly or indirectly related to any industry, trade or business, is carried on, and where any person is, directly or indirectly, employed by another for direct or indirect gain or profit, but does not include any place where persons employed in private domestic service which does not involve the use of mechanical power or farming. "Farming" includes those activities specified in section 102.04 (3), and also includes the transportation of farm products, supplies or equipment directly to the farm by the operator of said farm or his employes for use thereon, if such activities are directly or indirectly for the purpose of producing commodities for market, or as an accessory to such production. When used with relation to building codes, "place of employment" does not include a previously constructed building used as a community-based residential facility as defined in section 50.01 (1) which serves 20 or fewer unrelated residents, except for the purposes of section 101.11.

Note to Revisor: Following section Ind 41.01, delete PART II--DEFINITIONS.

Subsection Ind 41.02 (intro. par.) is created to read:

Ind 41.02 DEFINITIONS. The definitions of this section shall be applicable throughout this code.

Subsection Ind 41.02 (1a) is created to read:

- (1a) Alteration. For the purposes of this code, "alteration" means a change in a boiler or pressure vessel that substantially alters the original design requiring consideration of the effect of the change on the original design. It is not intended that the addition of nozzles smaller than an unreinforced opening size be considered an alteration. (Also see "repair.")

Subsections Ind 41.02 (2) (b) and (d) are amended, and (2) (e) is created to read:

- (2) (b) Miniature boiler. A miniature boiler is a power boiler or high temperature water boiler which does not exceed any of the following limits:
1. 16 inches inside diameter of shell;
 2. 20 square feet heating surface (not applicable to electric boilers);
 3. 5 cubic feet gross volume exclusive of casing and insulation;
 4. 100 psi maximum allowable working pressure.

- (2) (d) Power boiler. A power boiler is a boiler in which steam or other vapor is generated at a pressure of more than 15 psig.
- (e) High temperature water boiler. A high temperature water boiler is a water boiler intended for operation at pressures in excess of 160 psig or temperatures in excess of 250° F.

Subsections Ind 41.02 (5m), (8t), (11j), (13p) and (13t) are created to read:

- (5m) Enforcement authority. Enforcement authority means the department, which is empowered to formulate definitions, rules and regulations for the safe construction, installation, inspection, operation, maintenance, repair and alteration of boilers and pressure vessels in this state.
- (8c) Hot water storage tank. A hot water storage tank is a tank used to store water that is heated indirectly by a circulating water heater or by steam or hot water circulating through coils or other heat exchange methods internal or external to the tank.
- (11j) Jurisdictional authority. See "enforcement authority."
- (13p) Power piping. Power piping means any steam piping system having an operating pressure in excess of 15 psig or any hot water piping system subject to temperatures in excess of 250° F.
- (13t) Pressure-temperature relieving valve. A pressure-temperature relieving valve is an automatic relieving device actuated by the static pressure upstream of the valve which opens further with increase in the pressure over the opening pressure, or by the temperature of the fluid. It is used primarily for liquid service.

Subsection Ind 41.02 (14) is repealed and recreated to read:

- (14) Pressure vessel. A pressure vessel is a container for the containment of pressure, either internal or external. This pressure may be obtained from an external source or by the application of heat from a direct or indirect source, or any combination thereof.

Subsection Ind 41.02 (14g) is created to read:

- (14g) Relief valve. A relief valve is an automatic pressure-relieving device actuated by the static pressure upstream of the valve which opens further with the increase in pressure over the opening pressure. It is used primarily for liquid service.

Subsection Ind 41.02 (15) is repealed and recreated to read:

- (15) Repair. Repair is work necessary to return a boiler or pressure vessel to a safe operating condition. (Also see "alteration.")

Subsections Ind 41.02 (15g), (15m), (15n) and (23) are created to read:

- (15g) Rupture disk. A rupture disk is a nonmechanical overpressure relief device that releases pressure when its preestablished rating is attained.
- (15m) Safety relief valve. A safety relief valve is an automatic pressure-actuated relieving device suitable for use either as a safety valve or relief valve, depending upon application.

- (15n) Safety valve. A safety valve is an automatic pressure-relieving device actuated by the static pressure upstream of the valve and characterized by full-opening pop action. It is used for gas or vapor service.
- (23) Water heater. A water heater is a closed vessel in which water is heated by the combustion of fuels, electricity, or any other source and withdrawn for use external to the system at pressures not exceeding 160 psig and shall include the apparatus by which heat is generated and all controls and devices necessary to prevent water temperatures from exceeding 210° F.

PART III--GENERAL RULES is amended to read:

PART II
GENERAL RULES

Subsection Ind 41.03 (3) Note is amended to read:

Note: To assure proper installation, alteration, or repair of a boiler or pressure vessel, it may be necessary to comply with applicable Wisconsin administrative code sections in addition to the Wisconsin boiler and pressure vessel code. Some of the Wisconsin code sections to be considered are as follows:

Section Ind 64.09 (combustion air intake requirements);
Section Ind 64.47 (metal smoke stack requirements);
Sections Ind 54.14, 55.29, 56.15, 57.20 and 60.25 (boiler room requirements);
Section Ind 69.01 (fee schedule);
Section Ind 64.20 (safety fuel burners).

Wisconsin administrative codes may be obtained by contacting the State Department of Administration, Document Sales and Distribution, 202 South Thornton Avenue, Madison, Wisconsin 53702.

Section Ind 41.04 "title" and subsection Ind 41.04 (2) are amended to read:

Ind 41.04 REPORTING ACCIDENTS, REPAIRS AND ALTERATIONS.

- (2) The owner or user shall report any repairs or alterations of a boiler or pressure vessel as required in chapter Ind 42. The owner or user shall also report conversions to other fuels.

Section Ind 41.05 is repealed and recreated to read:

Ind 41.05 NOTIFICATION OF INSTALLATION OF BOILERS, PRESSURE VESSELS AND POWER PIPING.

- (1) Boiler or pressure vessel installation notification. Installing contractors* shall notify the department of the installation of any new or used boiler or pressure vessel before the operation of such.
- (a) Notification shall:
1. Be by telephone or in writing.
 2. Include boiler(s) location, type (power heating, miniature, etc.) and name plate data.
 3. Include pressure vessel location, name plate data and size.

(b) Exceptions:

1. Notification is not required for new or used boilers or pressure vessels exempted in section Ind 41.21.
2. Notification to the department is not required for installations in cities of the first class if the appropriate city official has been notified.

(2) Power piping installation registration. The installing contractor* of any power piping system shall file an installation registration form with the department or with the city if installed in a city of the first class. (See Form SB-5204 for an example of information required on the registration form.)

*Note: Owners or users making their own installations will be considered installing contractors.

Subsection Ind 41.08 (2) (b) is amended to read:

- (b) The applicant shall have had at least 3 years of experience in one or more of the following endeavors:
1. Construction, repair or inspection of high pressure boilers or pressure vessels; or
 2. Operating engineer in charge of high pressure boilers or pressure vessels.

Subsection Ind 41.08 (5) (a) is amended to read:

- (a) A certificate becomes invalid when the holder terminates employment with the employer of record at the time of issue. A renewal may be obtained under the provisions of this section provided applicant meets eligibility requirements.

Subsection Ind 41.08 (6) (a) 3. is repealed.

Subsection Ind 41.11 (6) (f) Note is amended to read:

Note: Blow-off equipment designed in accordance with the boiler blow-off equipment code issued by the National Board of Boiler and Pressure Vessel Inspectors, 1973 edition, will meet the requirements of this section. Other methods of designing blow-off equipment may be used if approved by the department.

Subsection Ind 41.14 (1) (intro. par.) is amended, and subsection Ind 41.14 (1) (c) is created to read:

- (1) A new installation of a new or used boiler or pressure vessel shall be inspected by the department before it is placed in operation unless one of the following conditions is met:
 - (c) The installation is inspected by an Authorized Inspector who shall file an inspection report with the department and shall affix the Wisconsin registration number as required in section Ind 41.06.

POWER PIPING
 INSTALLATION REGISTRATION
 SB-5204

STATE OF WISCONSIN
 DEPARTMENT OF INDUSTRY, LABOR AND HUMAN RELATIONS
 SAFETY AND BUILDINGS DIVISION

Complete appropriate portion.

Installing contractor shall prepare this form in triplicate and distribute as follows:
 White - Send to Dept. of Industry, Labor & Human Relations, Safety & Buildings Division, P. O. Box 7946, Madison, Wisconsin 53707, or City of Milwaukee, if applicable.
 Yellow - Send to owner.
 Pink - Retain for file.

Description of system

Name of user or owner	Location of installation	
Street Address		
City	State	Zip
Safety valve settings--power source	Capacity	P S I G
1. _____	_____	Maximum allowable pressure _____
2. _____	_____	Test pressure _____
3. _____	_____	Date tested _____

Name of installing contractor	Street address	City	State	Zip
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I certify this system was installed and tested in accordance with Ind 41.56 of the Wisconsin Administrative Code.

Date installation completed	Signature of installer	Title	Date registered
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Section Ind 41.15 is repealed and recreated to read:

Ind 41.15 MANUFACTURER'S DATA REPORTS. The owner or user shall retain the manufacturer's data reports, except data reports for boilers and pressure vessels exempt from ASME code construction requirements. See section Ind 41.50.

Following section Ind 41.16, PART IV--INSPECTIONS, is amended to read:

PART III
INSPECTIONS

Subsections Ind 41.20 (2) (intro. par.), (4) and (5) are amended to read:

- (2) Contacting representative. The inspector before making an inspection shall contact a representative of the employer and a representative authorized by the employees who shall be given an opportunity to accompany the inspector during the physical inspection of any workplace under subsection (1) for the purpose of aiding such inspection.
- (4) Inspection of pressure vessels. Except as regulated in section Ind 41.21, pressure vessels shall be subjected to a regular internal or external inspection at least once every 36 months by a qualified inspector.
- (5) Inspection of low pressure steam and hot water heating boilers. Except as regulated in section Ind 41.21, low pressure steam and hot water heating boilers shall be subjected to a regular external or internal inspection at least once every 36 months by a qualified inspector.

Note: Extension of period between inspections. If operating conditions require, longer periods between inspections of boilers or pressure vessels may be approved by the department upon a written request for an extension.

Note: For inspection fees, see Wis. Adm. Code chapter Ind 69, Fee Schedule.

Section Ind 41.21 is repealed and recreated to read:

Ind 41.21 EXEMPTIONS FROM PERIODIC INSPECTIONS.

- (1) The following will not be subject to periodic inspection:
 - (a) Boilers or pressure vessels which receive regular inspections by United States government inspectors.
 - (b) Steam boilers having an internal or external operating pressure not exceeding 15 psig with an input not exceeding 500,000 Btu per hour and hot water heating boilers having an operating pressure not exceeding 30 psig with an input not exceeding 500,000 Btu per hour, all of which are located in buildings other than apartment buildings.
 - (c) Heating boilers, which are either steam boilers having an internal or external operating pressure not exceeding 15 psig or hot water heating boilers having an operating pressure not exceeding 30 psig and located in private residences or in apartment buildings having less than 6 living units.

- (d) Expansion tanks for hot water heating boilers having an operating pressure of less than 50 psig with no limitation on size.
 - (e) Boilers used exclusively for agricultural purposes.
 - (f) Miniature boilers.
 - (g) Pressure vessels having an inside diameter not exceeding 6 inches with no limit on pressure.
 - (h) Pressure vessels having a volume of less than 5 cubic feet and an operating pressure of less than 250 psi.
 - (i) Pressure vessels with a volume of less than 1-1/2 cubic feet with no limit on pressure.
 - (j) Pressure vessels having an internal or external operating pressure of not more than 15 psig with no limitations on size.
 - (k) Hot water supply boilers, water heaters and hot water storage tanks.
 - (l) Vessels used for the storage or processing of cold water, including those with air cushions.
 - (m) Pressure vessels which are used in accordance with the regulations of the U.S. Department of Transportation.
- (2) Exception. In individual cases, the boilers and pressure vessels exempted in (1) will be subject to inspection by or on order of the department upon complaint of any person or upon initiative of the department when there is reasonable cause to suspect that the construction, installation, maintenance or operation of the vessel is not in keeping with the general purpose and intent of this code.

Subsection Ind 41.28 (4) Note is amended to read:

Note: See Wis. Adm. Code chapter Ind 69, Fee Schedule, for amount of fee to be paid to the department for all certificates of operation.

Following section Ind 41.29, the following heading is created to read:

PART IV
NUCLEAR POWER PLANTS

Sections Ind 41.30, Ind 41.35, Ind 41.40, and Ind 41.45 are created to read:

Ind 41.30 INSTALLATION REGISTRATION.

- (1) Owner report filing before operation. The owner of any nuclear class pressure vessel within the scope of ASME code section III, except as regulated in section Ind 41.21, shall file a copy of form N-3, ASME data report, with the department before operating the pressure vessel.
- (2) Registration of pressure vessels, boilers and power piping. All other pressure vessels, boilers and power piping at nuclear power plants must be registered with the department as required by section Ind 41.06. The installation inspection shall meet the requirements of section Ind 41.14.

Note: Large groups of vessels may be reported in summary form in lieu of individual reports for each vessel.

Ind 41.35 PERIODIC INSPECTIONS.

- (1) In-service inspection program. The owner or user shall place on file with the department an in-service inspection plan as required by section XI of the ASME code listed in table 41.10-A. The department shall be notified at least 10 days prior to all planned shutdowns which include in-service inspections.

Note: A copy of the in-service inspection plan accepted by the Nuclear Regulatory Commission will be acceptable to the department in satisfying the filing of an in-service inspection plan required by the code.

- (2) Statement of inspection service contract. The owner or user shall file a statement with the department indicating possession of an arrangement with an authorized inspection agency to provide inspection services under section XI of the ASME code listed in table 41.10-A. The statement must include the name and address of the current authorized inspection agency.
- (3) In-service inspection report. Within 90 days after each in-service inspection, the owner or user shall submit an owner's data report for in-service inspection (NIS-1) describing the inspections performed under section XI of the ASME code listed in table 41.10-A.
- (4) Frequency of inspection. Pressure vessels located within a nuclear containment may be inspected as part of the in-service inspection. The vessels shall be inspected at least once every 36 months.

Note: Extension of period between inspections. If operating conditions require, longer periods between inspections may be approved by the department upon receipt of a written request for an extension.

Ind 41.40 WELDED REPAIR.

- (1) Record of repair. The owner or the owner's agent shall furnish the department, within 90 days, a record of repair (form SB-190) when any component within the scope of ASME code section XI (table 41.10-A) is repaired by welding.

Note #1: No other supporting documents are required to be submitted to meet this requirement.

Note #2: Multiple repairs to the same object may be reported on a single report form.

- (2) Record of modifications, replacement, additions or alterations. When modifications, replacements, additions or alterations are made by welding, the requirement stated in (1) shall apply.
- (3) Exemption. Piping, valves and fittings of 2-inch nominal pipe size and smaller are exempt from the requirements of this section.

Ind 41.45 REPORT OF INCIDENTS. The owner or the owner's agent shall report to the department any incident involving pressure-retaining components within the scope of section XI of the ASME code (table 41.10-A) which requires notification to the U.S. Nuclear Regulatory Commission. The report shall be filed coincident with the report to the U.S. Nuclear Regulatory Commission.

Note: It is the intent of the department to avoid conflicts with the requirements of the U.S. Nuclear Regulatory Commission.

PART V
NEW INSTALLATIONS
ORIGINAL CONSTRUCTION

Section Ind 41.50 is amended to read:

Ind 41.50 ASME CODE VESSELS. Except as regulated in sections Ind 41.51, Ind 41.52 and Ind 41.53, boilers and pressure vessels installed after the effective date of this section shall be constructed and installed in accordance with the ASME standards adopted under section Ind 41.10.

Subsection Ind 41.51 (1) (b) (intro. par.) is amended to read:

- (b) When the vessel is to be built by an owner for the owner's use, the department may waive the stamping required by the ASME codes listed in section Ind 41.10.

Subsections Ind 41.53 (1) (intro. par.) and (1) (a) are repealed and recreated, and subsection (1) (c) is amended to read:

Ind 41.53 NON-CODE VESSELS. (1) The following vessels are not required to be constructed and installed in accordance with the codes listed in table 41.10-A, but shall meet the pressure-relief device requirements of the ASME codes listed in table 41.10-A. Pressure-temperature relief devices listed by AGA, UL or ASME satisfy the requirements for pressure-relief devices when installed on water heaters and hot water storage tanks connected to water heaters with heat inputs not exceeding 200,000 Btu per hour and temperatures not exceeding 210° F.

- (a) Water heaters used exclusively for hot water service, provided such apparatus meets the requirements of nationally recognized standards (ANSI, AGA or UL) listed below, or ASME, or as approved by the department. Stamping of water heaters or hot water storage tanks with applicable AGA, UL or ASME stamp constitutes evidence of conformance with this code. Water heaters or hot water storage tanks not so stamped shall:

1. Have their design submitted for approval by the department;
2. Withstand a hydrostatic pressure of 300 psi or their rated hydrostatic test pressure if greater than this amount without developing leakage or permanent distortion; and
3. Be equipped with suitable primary (flame safeguard) safety controls, limit switches and burners, or electric elements as required by a nationally recognized standard, such as those listed below.

Note: Conformance with the following standards will be considered as compliance with (1) (a):

ANSI C 33.87-1972, Safety Standard for Household Electric Storage-Tank Water Heaters (UL-174, 47th edition and revisions 10/15/73, 4/17/74, 9/12/74, 2/5/75 and 9/8/76). (Note: Limited to 600 volts, 12 kw and 1-120 gallons.)

ANSI Z 21.10.1-1975, American National Standard for Gas Water Heaters, Volume I, Automatic Storage Type Water Heaters with Inputs of 75,000 Btu per Hour or Less. (AGA Z 21.10.1-1975)

ANSI Z 21.10.3-1975, American National Standard for Gas Water Heaters, Volume III, Circulating Tank, Instantaneous and Large Automatic Storage Type Water Heaters. (AGA Z 21.10.3-1975)

ANSI Z 95.3-1975, Safety Standard for Oil-Fired Storage Tank Water Heaters (UL-732, 3rd edition and revisions 6/6/75 and 10/3/75). (Note: Limited to 200,000 Btu per hour (60 kw), 120 gallons and 200° F.)

- (c) Hot water storage tanks, when heated indirectly by circulating either steam at or below 15 psig, or by hot water at or below 30 psig through a coil or heat exchanger, and the storage water temperature does not exceed 210° F.

Section Ind 41.54 is repealed and recreated to read:

Ind 41.54 MULTI-BOILER INSTALLATION.

- (1) Hot water heating boilers. When hot water heating boilers are installed in multiples with a common header and a common return, isolation valves may be eliminated between units and they may be considered one boiler provided:
- (a) No single units exceeds 500,000 Btu per hour output;
 - (b) Each unit has a pressure-relief device as required by the ASME code listed in table 41.10-A or the common header has a pressure-relief device(s) with sufficient relieving capacity for all units in the installation.

- (c) Each unit has operating controls and safety controls acceptable to the department; and
- (d) The fuel supply to each unit is shut off by a low water cutoff in the event of low water in the system.

CHAPTER IND 42

WELDED REPAIRS AND ALTERATIONS

PART I--WELDED REPAIRS AND ALTERATIONS

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- Ind 42.11 Prohibited repairs
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CHAPTER IND 42

PART VII--REPAIRS, MAJOR REPAIRS, ALTERATIONS, is amended to read:

PART I

WELDED REPAIRS AND ALTERATIONS

Subsections Ind 42.01 (1) and (2) are amended and (3) is created to read:

Ind 42.01 RULES AND REPORTS.

- (1) Welded repairs or alterations. Welded repairs or alterations to any boiler or pressure vessel or their fittings, settings, or appurtenances shall be completed in accordance with the requirements of sections Ind 42.01 through 42.22. Other methods may be acceptable provided they are approved by the department. In the absence of specific rules, the rules for new construction shall apply. No repair or alteration by welding shall be made without the approval of an Authorized Inspector who shall, if he considers it necessary, inspect the object before granting an approval.
- (2) Inspection reports. Manufacturers, owners, or contractors who make welded repairs or alterations in accordance with these rules shall furnish the department with a report of every welded repair or alteration. The report shall be signed by the Authorized Inspector who inspected or approved the repair or alteration. The owner of the equipment shall retain a copy of the report for review by an Authorized Inspector. The form to be used for the report shall contain the information shown in the following example:

(Note to Revisor: See following page for example.)

- (3) Exceptions. The following items are exempt from the reporting requirements of (2):
 - (a) The welded repair of tubes, or the alteration or replacement of tubes in boilers or pressure vessels;
 - (b) Piping, nozzles, valves and fittings of 2-inch nominal pipe size and smaller.

Subsections Ind 42.09 (1) and (2) are amended to read:

- (1) Welder qualification. Manufacturers, owners or contractors shall have available for the inspector records of welder qualification tests showing that each welder to be employed on the work has satisfactorily passed tests as prescribed in section IX of the ASME code (table 41.10-A) for the type of filler metal to be used and for each position in which the welder will be called upon to operate in making the repair.
- (2) Welding tests, manufacturer's, owner's or contractor's responsibility, inspector's duty. Preparation of welding procedure specifications and the conducting of tests of procedures and welders shall be the responsibility of the manufacturer, owner or contractor. Before repairs are started, it shall be the duty of the inspector

STATE OF WISCONSIN
DEPARTMENT OF INDUSTRY, LABOR AND HUMAN RELATIONS
SAFETY AND BUILDINGS DIVISION
201 E. Washington Avenue
Post Office Box 7946
Madison, Wisconsin 53707

Record of Repair or Alteration Completed on: Power Boiler Wis. Reg. No. _____
Heating Boiler NB No. _____
Pressure Vessel Serial No. _____
Miniature Boiler Other _____
Mfd. by: _____

Work completed by contractor _____
(Name)

(Address) (Zip)

Located in the plant of _____
(Name of Owner)

(Address) (Zip)

(Description of repair)

Hydrostatic Test p.s.i. _____

Repair or alterations were made in accordance with the requirements of the Wisconsin Department of Industry, Labor and Human Relations, Wisconsin Administrative Code Chapter Ind 42. The welding was completed by _____

(Name of welder and Soc. Sec. #)

who has made the test requirements of said rules.

(Welding Process) Signed by _____
(Contractor Representative)

(Welding Procedure) Dated at _____ on _____

Authorized Inspector--Wis. Com. # _____ Employed by _____

Date
Use reverse side for sketch description of repair or alteration.
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to be satisfied by examination of the written welding procedure and records of qualification tests that procedures and welders have been properly qualified as required in section IX of the ASME code (table 41.10-A). Witnessing of the tests by the inspector shall not be mandatory but the inspector shall have the right to witness such tests when it is deemed necessary. The inspector shall also have the right to call for and witness the making of test plates by any welder, at any time, and to observe the physical testing of such plates.

Section Ind 42.11 is amended to read:

Ind 42.11 PROHIBITED REPAIRS. A welder shall not make repairs in a plate thickness in excess of that permitted under section IX of the ASME code (table 41.10-A) for welding qualifications. A welder shall not make repairs on a material that is not covered within the welder's qualification tests.

Following section Ind 42.22, PART VIII is renumbered PART II

PART II
SECONDHAND BOILERS--SECONDHAND PRESSURE
VESSELS--PORTABLE BOILERS

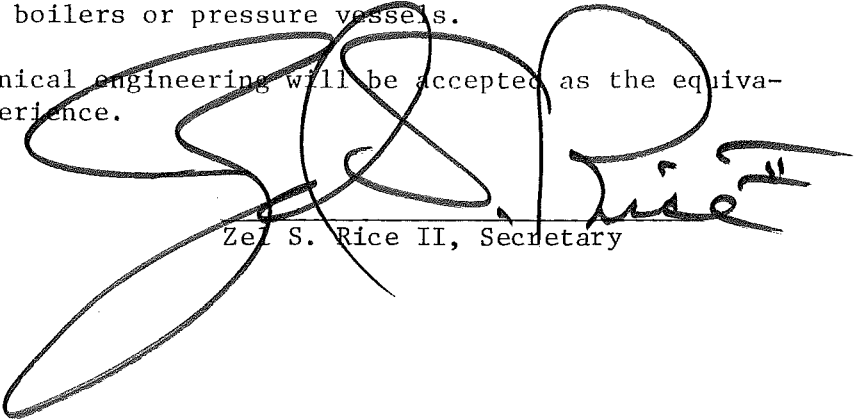
Following section Ind 42.33, PART IX is renumbered PART III

PART III
INSPECTION AND REPAIR OF PRESSURE VESSELS
IN PETROLEUM REFINERIES

Section Ind 42.37 is repealed and recreated to read:

Ind 42.37 QUALIFICATIONS OF INSPECTORS.

- (1) Experience. Inspectors shall have at least 3 years experience as follows:
 - (a) In boiler or pressure vessel construction or repair;
 - (b) As an operating engineer in charge of high pressure boilers; or
 - (c) As an inspector of steam boilers or pressure vessels.
- (2) Education. A degree in mechanical engineering will be accepted as the equivalent of 2 years practical experience.



Zel S. Rice II, Secretary