AAR APPENDIX B

CERTIFICATION OF FACILITIES

B1.00 INTRODUCTION

B1.01 SCOPE

Appendix B describes AAR requirements for certification of facilities for fabrication, assembly, alteration, conversion, repair, and associated testing of completed tank car tanks as required by AAR and DOT specifications for tank cars.

This specification has been formulated by the Tank Car Committee of the Association of American Railroads and includes all applicable portions of Standard S-2034 (1990 Revision). The Committee consists of representatives appointed by the chief mechanical officers of the major operating railroads. The Committee is supplemented by representatives from certain shipper organizations.

The application process is fully described and is to be followed by tank car facilities requesting certification.

At all times the applicant will have the right to appeal or make further submissions until such time as all issues have been resolved for granting the certification by the Committee.

B2.00 DEFINITIONS

The definitions and abbreviations in Section 1.2, Appendix R and Appendix W apply in this appendix, as well as the following definition:

ASSEMBLE

Means construction of a tank car without welding on the tank car tank.

B3.00 FACILITY CLASSIFICATION

B3.01 GENERAL

(a) Each facility that is to perform welding on tank car tanks must be certified by the AAR for fabrication, alteration, conversion or welded repairs. Each facility that is certified is listed in Table B1 by:

Specification categories	B3.02
Material groups	B3.03
Facility class	B3.04

to identify work that may be undertaken.

(b) A certified facility that authorizes work using equipment listed in B4.02 and B5.02(a) that is not located on its premises will be responsible for that work.

(c) Each facility must be certified specifically for one or more of the following specification categories and material groups, by performance of the appropriate welding procedure qualification tests in accord with Appendix W, and must weld only tanks of specifications and material groups for which the facility is certified. Welded repairs, alterations or conversions must be performed in accord with Appendix R.

B3.02 SPECIFICATION CATEGORIES

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- (I) All AAR and DOT specifications for tanks, except categories II and III.
- (II) DOT 179.300 Multi-unit tank car tanks (DOT-106A, 110A).
- (III) DOT 179.500 Seamless steel tank car tanks (DOT-107A).

B3.03 MATERIAL GROUPS

See Appendix M.

Group 1: M3.01 Carbon steel plate

M3.07 Manganese-molybdenum steel plate

M3.08 Manganese-silicon steel plate

Group 2: M3.02 Aluminum alloy plate

Group 3: M3.03 High alloy steel plate

Group 4: M3.04 Nickel plate

Group 5: Open

Group 6: See DOT 179.500-5

Group 7: M3.05 Nickel alloy steel plate

B3.04 FACILITY CLASSES

Class A. Fabricate, repair, alter, convert or assemble.

Class B. Repair, alter, convert or assemble.

Class C. Open

Class D. Tank fabrication or repair. Confined to tank car tanks that are moved to and from the facility without trucks (running gear).

(a) Class B facilities need not possess all equipment listed in B4.02 but must have access to equipment and testing facilities.

(b) Facilities must be capable of performing, or arrange to have performed, all associated tank car repairs or assembly incident to the class for which they are certified, so that the completed car will be in compliance with the DOT regulations and AAR Interchange Rules.

(c) All work performed by outside subcontractors for a certified facility must be verified by the certified facility for compliance with all applicable specifications and regulations, and a signed Exhibit R-1 or Form AAR 4-2 must be submitted, as appropriate, when required by the specification.

B4.00 FACILITY MINIMUM REQUIREMENTS

B4.01 MINIMUM PERSONNEL QUALIFICATIONS

(a) Welders and Welding Operators

- 1. All personnel engaged in welding on tank car tanks must be performance-qualified in accord with Appendix W for each welding procedure under which they do welding. Welders certified per Appendix W shall be considered to meet the requirements of paragraph 5.1.10.2 of M-1001, AAR Manual of Standards.
- 2. All other welders at a certified facility must be qualified per paragraph 5.1.10.2 of M-1001, AAR Manual of Standards.

(b) Quality Control Personnel

- 1. All certified facilities must have available at least one person qualified per the following:
 - a. Welding inspector per A.W.S. WIQC-1 or C.S.A. W178.2 Level 2.
 - b. Radiographers per A.S.N.T. Spec. SNT-TC-1A, Level II.

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- All welding inspectors at certified facilities must be qualified as Welding Inspector or Associate Welding Inspector per A.W.S. WIQC-1 or C.S.A. W178.2 Level 1, except as noted below.
- 3. Those facilities which do not employ personnel with the above qualifications must submit a list of those companies they intend to use for those services. The certified facility must verify in writing that these companies possess and will utilize personnel with the above qualifications and that inspections will be made in accord with AAR requirements.
- 4. Those facilities which maintain an in-house training program for inspection personnel may be considered exempt from the requirements of Paragraph 2 provided their facility application outlines the details of the program. The minimum requirements of the program must be comparable to the A.W.S. or C.S.A. welding inspector programs.

B4.02 MINIMUM EQUIPMENT REQUIREMENTS

- (a) A facility must possess and maintain the following equipment, except as noted below:
 - 1. Pressing and/or jacking equipment.
 - 2. Manual welding machines.
 - 3. Postweld heat treatment equipment:
 - a. for limited length welds and inserts, including method for controlling temperature.
 - b. *for localized treatment exceeding limited length welds, including equipment for controlling and recording treatment temperature.
 - 4. Nondestructive testing equipment:
 - a. Dye penetrant and/or *magnetic particle.
 - b. Radiographic equipment: film storage film viewer *radiation source
 - c. Hardness testing equipment.
 - d. Hydrostatic testing equipment.
 - e. *Valve testing equipment.
 - f. Welding rod oven(s).

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* (b) Those facilities which do not possess the above equipment marked with "*" must furnish a list of outside subcontractors. A subcontractor evaluation sheet Exhibit B-1 must be maintained in the facility's file for each outside subcontractor and must be submitted to the Tank Car Committee with the request for facility certification.

(c) Those companies with more than one shop location may centralize record storage and share equipment, provided their application for certification details the equipment to be shared, its availability, and the procedures followed to assure the maintenance of proper records.

B5.00 APPLICATION FOR CERTIFICATION

B5.01 GENERAL

Original of application must be submitted to the Director-Technical Committees, Mechanical Division, AAR, 50 F St. N.W., Washington, D.C. 20001-1564, and one copy must be sent direct to each member of the Tank Car Committee (excluding the member representing the Railway Progress Institute). If the AAR Research Laboratory is to be used for checking welder's test results, a copy of the application and specimens in accord with Appendix W must be forwarded to the Director, Mechanical Research, AAR Research Center, 3140 South Federal Street, Chicago, Illinois 60616.

B5.02 DATA REQUIRED

The following data must be submitted as a part of the application:

- (a) Inventory of the equipment (in-house and/or subcontractor).
 - (1) Plant processing equipment including planers, shears, benders, punch, press brake, cutters, grinders and saws.
 - (2) Bending rolls.
 - (3) Special assembly fixtures including weld positioners, turning rolls, welding jigs, pressing and/or jacking equipment, and hot rivet equipment.
 - (4) Manual welding machines (plasma are and air-carbon are equipment included).
 - (5) Automatic welding machines.
 - (6) Postweld heat treatment equipment for unit treatment in accord with W17.00.
 - (7) Postweld heat treatment equipment for local treatment in accord with R21.03:
 - a. Equipment for accomplishing local treatment.
 - b. Equipment for controlling and recording local treatment temperature.
 - (8) Non-destructive testing equipment:

Fluorescent penetrant. Dye penetrant. Magnetic particle. Ultrasonic.

Radiographic:

- a. Type of equipment.
- b. Film storage.
- c. Film viewer.
- (9) Tension and bend testing machines.
- (10) Hardness testing equipment.
- (11) Hydrostatic testing equipment for tank and heater coil testing.
- (12) Safety valve test equipment.
- (b) Description of equipment should show:
 - (1) Manufacturer's name.
 - (2) Type.
 - (3) Model.
 - (4) Capacity.
 - (5) Ownership if not in-house.

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(c) Current qualification test results for a material listed in each material group for which certification is requested, including a copy of Welding Procedure Qualification Record (PQR), Appendix W Figure W-12, with:

- (1) data illustrating preparation of abutting plate edges.
- (2) tabular data outlining welding standards for current, voltage, speed and wire size as used in welding plates of various thicknesses for each material group for which certification is requested.
- (3) tests performed on an approved plate material for tank fabrication as listed in M3.00, Appendix M.

(d) List of welders, by name and identification symbol, qualified per Appendix W and employed at the facility. One or more welders qualified as defined in Appendix W for each material group for which certification is requested must be employed at the facility. One copy of Welder Performance Qualification Test, Appendix W Figure W13, is to be included for each material group for which certification is requested.

(e) Organizational charts of manufacturing and quality control staffs. Statement describing key personnel responsible for supervising production, repair, testing tanks and assuring quality in compliance with AAR standards, including:

- (1) Title
- (2) Outline of duties
- (3) Delegated authority
- (4) Level to which certified (for radiographer or certified welding inspector)
- (5) Experience, education, and training

(f) Statement that the facility has a quality control program to assure compliance with requirements of Appendix W and other applicable AAR specifications or rules and the DOT regulations.

(g) A description of the facility's system for the calibration of equipment used for examination, measuring and testing in fulfillment of the requirement of the AAR Specifications for Tank Cars.

(h) Statement that the facility possesses the latest published issues of the Specifications for Tank Cars, Field Manual and Office Manual of the AAR Interchange Rules, and other current applicable AAR publications covering tank car work they certify as meeting AAR requirements, including a current file of the Mechanical Division publications (circular letters). A listing of current AAR publications is shown on the preface page of the Specifications for Tank Cars. These publications can be obtained from Ms. P.L. Tucker at the following address:

Association of American Railroads Operations and Maintenance Department Mechanical Division 50 F Street, N.W. Washington, D.C. 20001-1564

(i) Other data as may be required per B6.00.

B5.03 APPROVAL OF APPLICATION

(a) Approval under this specification applies only to one facility. If a company desires that more than one facility be approved, each facility must be approved independently.

(b) The Director-Tank Car/Special Equipment Services must provide for review of the completed application. If all requirements have been complied with, he will appoint a task force representing the Tank Car Committee to inspect the facility involved. Upon the recommendation of the task force, the Tank Car Committee will consider certification.

(c) Approval of a facility will be based on the inspection report furnished by the task force to the Director. This report shall indicate compliance with Exhibit B-2 and applicable requirements shown in Section B9.00 for Class A and B facilities that assemble new tank cars, Section B10.00 for Class B facilities that do not assemble new tank cars and Section B11.00 for Class D facilities. Evaluation will be based on the following:

Management and line supervision Conformance to applicable specifications Welding, fabricating and construction practices Quality control provisions Facilities Operations Test devices Maintenance of plant equipment Engineering and drafting

(d) Upon receipt of the report of the inspection task force, the Director will review and forward it to the Tank Car Committee for action.

(e) In the event the Tank Car Committee finds the applicant's facility is not suitable for certification, the applicant may request a reinspection of the facility. The applicant must bear all expenses of this reinspection. If upon review of the results of such inspection, the Tank Car Committee still does not consider the applicant suitable for certification, the matter may be appealed to the Assistant Vice President, Casualty Prevention Division. Such appeal may be accompanied by any comments, explanations, or evidence in support of such appeal that the applicant desires to submit.

(f) The initial certification of a facility is conditional. After receipt of conditional approval, the facility is required to advise the Director-Tank Car/Special Equipment Services regarding the first tank in process. A form AAR 4-2, if required, must be submitted and approved prior to beginning the work. At the discretion of the Tank Car Committee, the first car is subject to inspection. Based upon that inspection, final action will be taken by the committee to remove conditional status. The applicant will bear all costs for reinspection. Conditional certification will lapse, in the absence of shop activity on a tank car, at the end of a 2-year period, after which certification proceedings must be reinitiated. Facilities holding conditional approval will not be listed in Table B1.

B6.00 RECERTIFICATION

(a) Facilities must be recertified at intervals of five years from the original certification date in accord with procedures prescribed for an original certification. It is the responsibility of the facility to initiate these certification proceedings six months prior to the expiration date.

(b) Effective at the next recertification, a facility that has not made an approved welded repair in the two years prior to its certification expiration date will be considered for conditional certification only and processed in accord with B5.03(b).

(c) A change in ownership of a certified facility requires reconsideration of certification. It is the responsibility of the new owner to initiate recertification proceedings within 90 days.

(d) In addition to the data required per B4.01, B4.02 and B5.02, applications for recertification must include copies of typical Exhibit R-1 and an approved Form AAR 4-2, with a description of how these documents are originated, processed and stored.

B7.00 CHARGES

An initial charge of \$500 will be made for certification or recertification for each facility to apply toward the expenses incurred by the task group. A supplemental invoice will be issued for any expense incurred in excess of the initial charge and will include a \$200 surcharge for new certifications or a \$50 surcharge for recertifications.

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B8.00 FACILITY INSPECTIONS

(a) The Committee reserves the right to inspect certified facilities at any time to assure maintenance of certification standards. This right also includes unannounced inspections by AAR inspectors, who will furnish reports of deficiencies in writing to the Tank Car Committee.

(b) Car owners and certified shops have the right and responsibility to make reports of improper repairs to the Director-Tank Car/Special Equipment Services for review by the Tank Car Committee. The Director may authorize an unannounced inspection of a facility and may request copies of repair records on subject cars from the involved facilities.

(c) A facility may be decertified, by formal action of the Tank Car Committee, for documented evidence of failure to perform work that is in accord with M-1002. In such cases, the facility management must prove that sufficient corrective remedies and quality assurance measures have been implemented before any written reapplication is eligible for approval. This must be accomplished via on-site verification by representatives of the Tank Car Committee. Reapplication must be in accord with specified procedures for an original application.

B9.00 TASK FORCE INSPECTION CHECK LIST FOR CERTIFICATION OF TANK CAR CLASS A AND B FACILITIES THAT ASSEMBLE NEW TANK CARS

B9.01 MANAGEMENT AND LINE SUPERVISION

(a) Does company policy indicate a recognition of separation of responsibility for production and Quality Control supervision functions?

(b) Does the organization chart clearly show lines of plant management authority and line of responsibility down to principal plant departmental supervisors?

(c) Is there a written Quality Assurance Program, and is it disseminated as reflected by general attitude and awareness of Quality Assurance requirements?

(d) Are assigned personnel for key positions in manufacturing qualified by training and experience?

(e) Are supervisors qualified by experience and/or education or training programs?

B9.02 CONFORMANCE TO BUILDING SPECIFICATIONS

(a) Do provisions exist to assure that obsolete drawings and documents are destroyed or isolated from use?

(b) Is there a stated procedure followed for distributing new and revised drawings to the shop force?

(c) Where AAR approval is required by specifications, is sublet fabrication or manufacture awarded to manufacturers holding appropriate approval?

(d) When suppliers new to tank car builders are utilized, what procedures are invoked to insure compliance with applicable specifications?

(e) Are mill materials inspected upon receipt and marked for permanent identification?

(f) Are all other purchased materials (wheels, brakes, castings, etc.) checked for conformance with purchasing document upon receipt?

(g) Are records maintained and procedures functioning to insure traceability of grade and, where required, heat numbers and material test reports for special requirements?

- (h) Are mill test reports kept on file?
- (i) Are the materials identified when transferred from storage to shop prior to processing?
- (j) Is there a marking system that assures intended application of material cut from larger pieces?
- (k) Is grade identification retained on material returned to stock?

B9.03 WELDING, FABRICATION AND CONSTRUCTION PRACTICES

(a) Does the facility have a certified welding inspector?

(b) Does this person have the authority to control welding procedures in the shop?

(c) Does this person control and/or supervise the setting of welding machines?

(d) Are welders certified per Appendix W of Specification M-1002 and A.W.S. Specification D15.1, latest revision?

(e) Is there a record of welder certification?

(f) Are the procedures outlined in Appendix W of M-1002 being followed?

B9.04 QUALITY CONTROL

(a) Does the Quality Control organization include a Quality Control Supervisor who can demonstrate a knowledge of the car construction process?

(b) Are there standard qualification procedures for shop inspectors?

(c) Is there an in-process inspection procedure to assure that cars are properly fabricated and assembled?

(d) Does Quality Control have the authority to stop nonconforming work and the responsibility to inform operating supervision of the nonconforming work?

(e) Are there procedures for correcting nonconforming material or work in process rejected by Quality Control forces?

(f) Does this procedure assure that the level of authority is commensurate with the problem?

(g) Is there a procedure for inspection of purchased material and manufactured items?

(h) Is there a procedure that will prevent the use of materials which do not conform to applicable standards (AAR, ANSI, ASTM, etc.)?

(i) Are contract specifications and special provisions on the Quality Control file?

(j) Is there monitoring of workmanship throughout the process to assure conformance with contract documents and specifications?

(k) Do all cars receive a final inspection, and is a record kept of this inspection?

(1) Is there office space for outside inspectors?

(m) Are there procedures for liaison with outside inspectors?

(n) Do inspectors have the following equipment available?

Welding gauges Tag system Paint gauge

(o) Is there a testing service available to verify conformance of material applicable to specification?

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B9.05 FACILITIES

(a) Does facility have transfer table or other mechanism to simulate AAR minimum curve requirements?

(b) Does facility have possession of or access to scale for lightweighing of cars? (Capacity, length of scale, and certification to be provided.)

(c) Does facility have designated level track for adjustment of side bearings and coupler height?

- (d) Does facility have blasting or other surface preparation equipment?
- (e) Does facility have painting equipment?
- (f) Does application correctly describe major machinery on premises, including welding equipment?

(g) Is there proper storage for welding electrodes, paint, fittings, valves, brake valves, and brake cylinders?

(h) Are there sufficient flux and rod ovens to support the operations and operating per Appendix W of M-1002 and A.W.S. latest adoptions?

B9.06 OPERATIONS

- (a) Are welding rods and welding fluxes correctly identified when stored?
- (b) Are grade of material and marking verified prior to fabrication?
- (c) Is raw material blocked and handled to prevent permanent distortion?
- (d) Does facility have yard space, handling, and other equipment to store and handle materials?

B9.07 TEST DEVICES

- (a) Does the facility have AAR-approved brake shoe force measuring devices available?
- (b) Does the facility have hand brake force measuring device available?
- (c) Does the facility have single car test device?
- (d) Is single car test device verified in accord with latest AAR requirements?
- (e) Does the facility have brake pipe restriction test device and calibrating test coupling?
- (f) Is brake pipe restriction test device tested in accord with latest AAR requirements?
- (g) Are torque wrenches periodically calibrated?

B9.08 MAINTENANCE

- (a) Is there a plan for systematic maintenance of equipment?
- (b) Are the equipment and tools periodically inspected and restored to intended tolerance?
- (c) Are welding machines periodically checked to assure correct amperage and voltage readings?

B9.09 ENGINEERING AND DRAFTING

(a) Is there in-house engineering and drafting capability with a manager who holds a degree in engineering?

(b) Do personnel have knowledge of the applicable codes and specifications?

(c) Is there a current reference library of specifications, including latest revisions of the following:

AAR Field and Office Manuals of the Interchange Rules AAR Manual of Standards and Recommended Practices FRA or NTA Safety Appliances and Power Brakes AAR Circulars D. V. Circulars Tariff No. BOE-6000

(d) Does the company have in-house design engineers, or does it consistently use consultants qualified by registration or experience?

(e) Is there an in-house person capable of supervising, evaluating, and coordinating outside shop detail drawings and/or specialty drawings?

(f) Is a current list of design and shop detail drawings with latest revisions maintained?

(g) Are copies of approved special procedures, in addition to welding procedures, furnished to Quality Control and production supervision?

(h) Are notices to revise AAR publications issued to other departments to keep publications updated?

(i) Does facility possess or have access to advanced computational equipment? List of support programs to be provided.

(j) Does facility have access to engineering testing support facilities? List of major testing equipment to be provided.

B10.00 TASK FORCE INSPECTION CHECK LIST FOR CERTIFICATION OF TANK CAR CLASS B FACILITIES THAT DO NOT ASSEMBLE NEW TANK CARS

B10.01 MANAGEMENT AND LINE SUPERVISION

(a) Does company policy indicate a recognition of separation of responsibility for production and Quality Control supervision functions?

(b) Are assigned personnel for key positions in manufacturing qualified by training and experience?

(c) Are supervisors qualified by experience and/or education or training programs?

B10.02 CONFORMANCE TO BUILDING SPECIFICATIONS

(a) Are mill materials inspected upon receipt and marked for permanent identification?

(b) Are all other purchased materials (wheels, brakes, castings, etc.) checked for conformance with purchasing document upon receipt?

(c) Are records maintained and procedures functioning to insure traceability of grade and, where required, heat numbers and material test reports for special requirements?

(d) Are mill test reports kept on file?

(e) Are the materials identified when transferred from storage to shop prior to processing?

(f) Is there a marking system that assures intended application of material cut from larger pieces?

(g) Is grade identification retained on material returned to stock?

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B10.03 WELDING, FABRICATION AND CONSTRUCTION PRACTICES

(a) Does the facility have a certified welding inspector?

(b) Does this person have the authority to control welding procedures in the shop?

(c) Does this person control and/or supervise the setting of welding machines?

(d) Are welders certified per Appendix W of Specification M-1002 and A.W.S. Specification D15.1, latest revision?

(e) Is there a record of welder certification?

(f) Are the procedures outlined in Appendix W of M-1002 being followed?

B10.04 QUALITY CONTROL

(a) Does the Quality Control organization include a Quality Control Supervisor that can demonstrate a knowledge of the car construction process?

(b) Does Quality Control have the authority to stop nonconforming work and the responsibility to inform operating supervision of the nonconforming work?

(c) Are there procedures for correcting nonconforming material or work in process rejected by Quality Control forces?

(d) Is there a procedure for inspection of purchased material and manufactured items?

(e) Is there a procedure that will prevent the use of materials which do not conform to applicable standards (AAR, ANSI, ASTM, etc.)?

(f) Do all cars receive a final inspection, and is a record kept of this inspection?

(g) Is there office space for outside inspectors?

- (h) Are there procedures for liaison with outside inspectors?
- (i) Do inspectors have the following equipment available?

Welding Gauges Tag System Paint Gauge

(j) Is there a testing service available to verify conformance of material applicable to specifications?

B10.05 FACILITIES

(a) Does the facility have possession of or access to scale for lightweighing of cars? (Capacity, length of scale, and certification to be provided.)

(b) Does the facility have designated level track for adjustment of side bearings and coupler height?

- (c) Does facility have blasting or other surface preparation equipment?
- (d) Does facility have painting equipment?
- (e) Does application correctly describe major machinery on premises, including welding equipment?

(f) Is there proper storage for welding electrodes, paint, fittings, valves, brake valves, and brake cylinders?

(g) Are there sufficient flux and rod ovens to support the operations and operating per Appendix W of M-1002 and A.W.S. latest adoptions?

B10.06 OPERATIONS

- (a) Are welding rods and welding fluxes correctly identified when stored?
- (b) Are grade of material and marking verified prior to fabrication?
- (c) Is raw material blocked and handled to prevent permanent distortion?
- (d) Does facility have yard space, handling, and other equipment to store and handle materials?

B10.07 TEST DEVICES

- (a) Does the facility have single car test device?
- (b) Is single car test device tested in accordance with latest AAR requirements?
- (c) Are torque wrenches periodically calibrated?

B10.08 MAINTENANCE

- (a) Is there a plan for systematic maintenance of equipment?
- (b) Are the equipment and tools periodically inspected and restored to intended tolerance?
- (c) Are welding machines periodically checked to assure correct amperage and voltage readings?

B10.09 ENGINEERING AND DRAFTING

- (a) Do personnel have knowledge of the applicable codes and specifications?
- (b) Is there a current reference library of specifications, including latest revisions of the following:

AAR Field and Office Manuals of the Interchange Rules AAR Manual of Standards and Recommended Practices FRA or NTA Safety Appliances and Power Brakes AAR Circulars D. V. Circulars Tariff No. BOE-6000

(c) Are copies of approved special procedures, in addition to welding procedures, furnished to Quality Control and production supervision?

(d) Are notices to revise AAR publications issued to other departments to keep publications updated?

B11.00 TASK FORCE INSPECTION CHECK LIST FOR CERTIFICATION OF TANK CAR CLASS D FACILITIES

B11.01 MANAGEMENT AND LINE SUPERVISION

(a) Does company policy indicate a recognition of separation of responsibility for productions and Quality Control supervision functions?

(b) Are assigned personnel for key positions in manufacturing qualified by training and experience?

(c) Are supervisors qualified by experience and/or education or training programs?

B11.02 CONFORMANCE TO BUILDING SPECIFICATIONS

(a) Are mill materials inspected upon receipt and marked for permanent identification?

(b) Are records maintained and procedures functioning to insure traceability of grade and where required, heat numbers and material test reports for special requirements?

(c) Are mill test reports kept on file?

(d) Are the materials identified when transferred from storage to shop prior to processing?

(e) Is there a marking system that assures intended application of material cut from larger pieces?

(f) Is grade identification retained on material returned to stock?

B11.03 WELDING, FABRICATION AND CONSTRUCTION PRACTICES

(a) Does the facility have a certified welding inspector?

(b) Does this person have the authority to control welding machines?

(c) Does this person control and/or supervise the setting of welding machines?

(d) Are welders certified per Appendix W of Specification M-1002 and A.W.S. Specification D15.1, latest revision?

(e) Is there a record of welder certification?

(f) Are the procedures outlined in Appendix W of M-1002 being followed?

B11.04 QUALITY CONTROL

(a) Does the Quality Control organization include a Quality Control Supervisor that can demonstrate a knowledge of the car construction process?

(b) Does Quality Control have the authority to stop nonconforming work and the responsibility to inform operating supervision of the nonconforming work?

(c) Are there procedures for correcting nonconforming material or work in process rejected by Quality Control forces?

(d) Is there a procedure for inspection of purchased material and manufactured items?

(e) Is there a procedure that will prevent the use of materials which do not conform to applicable standards (AAR, ANSI, ASTM, etc.)?

(f) Do all cars receive a final inspection, and is a record kept of this inspection?

(g) Is there office space for outside inspectors?

(h) Are there procedures for liaison with outside inspectors?

(i) Do inspectors have the following equipment available?

Welding Gauges Tag System

(j) Is there a testing service available, to verify conformance of material applicable to specification?

B11.05 FACILITIES

- (a) Does facility have blasting or other surface preparation equipment?
- (b) Does application correctly describe major machinery, including welding equipment, on premises?

(c) Is there proper storage for welding electrodes, paint, fittings, valves, brake valves, and brake cylinders?

(d) Are there sufficient flux and rod ovens to support the operations and operating per Appendix W of M-1002 and A.W.S. latest adoptions?

B11.06 OPERATIONS

- (a) Are welding rods and welding fluxes correctly identified when stored?
- (b) Are grade of material and marking verified prior to fabrication?
- (c) Is raw material blocked and handled to prevent permanent distortion?
- (d) Does facility have yard space, handling, and other equipment to store and handle materials?

B11.07 MAINTENANCE

- (a) Is there a plan for systematic maintenance of equipment?
- (b) Are the equipment and tools periodically inspected and restored to intended tolerance?
- (c) Are welding machines periodically checked to assure correct amperage and voltage readings?

B11.08 ENGINEERING AND DRAFTING

- (a) Do personnel have knowledge of the applicable codes and specifications?
- (b) Is there a current reference library of specifications, including latest revisions of the following:

AAR Manual of Standards and Recommended Practices AAR Circulars D. V. Circulars Tariff No. BOE-6000

(c) Are copies of approved special procedures, in addition to welding procedures, furnished to Quality Control and production supervision?

(d) Are notices to revise AAR publications issued to other departments to keep publications updated?

B12.00 FACILITIES IN THE UNITED STATES, CANADA AND MEXICO THAT ARE CERTIFIED IN ACCORD WITH APPENDIX B

B12.01 GENERAL

Facilities that are currently certified to perform work in accord with AAR Specifications for Tank Cars, Appendix B, are listed in Table B1. Prior to authorizing work on a tank car at a facility not listed in Table B1, contact the Manager-Freight & Tank Car Design, Association of American Railroads, 50 F Street N.W., Washington, D.C. 20001-1564 to determine if appropriate certification of the facility will be in effect at the time of the performance of the work.

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TABLE B1

CERTIFIED TANK CAR FACILITIES

	CATEGORY →		I			II	III	
CERTIFIED FACILITY	MATERIAL → GROUP	1	2	3	4	7	1	6
	EXPIRATION DATE							
ACF Industries, Inc. Amcar Division								
Milton, Pennsylvania	8-30-97	Α	Α	Α				
ACF Industries, Inc.								
Shippers Car Line Division	0.00.05	D		D	D			
Milton, Pennsylvania	8-30-97	B		В	В			
Longview, lexas	11-15-90	D D		D				
North Kansas Oity, Missouri	10-17-90	D		D				
Air Products and Chemicals, Inc.	E 90.07	D #	D	D				
winkes-barre, rennsylvama	0-29-97	\mathbf{D}^*	D	D				
Alabama Kalicar Service	0.10.00	D						
Uzark, Alabama	8-12-90	в						
Amherst Industries, Inc.	0 10 00	D						
Landisville, Pennsylvania	6-16-93	в						
Amko Service Company		-		_				
Dover, Ohio	8-5-95	B ∗		В				
Angleton Railcar, Inc.		_						
Angleton, Texas	7-6-95	В						
Ansul Tank Unit								
Menominee, Michigan	7-6-95						D*	
Berwind Railway Service Company								
Hollidaysburg, Pennsylvania	11-1-95	B						
Neodesha, Kansas	6-18-97	B		B				
Scottsville, Texas	1-5-98	B	B	В			Ì	
Big Three Industrial Gas, Inc.								
Houston, Texas	2-27-96	B		B				
BIT Manufacturing Inc.								
Copperhill, Tennessee	9-6-93	B*						
Buncher Rail Car Service Company								
Hinton, West Virginia	12-6-94	B		В				
Lynchburg, Virginia	9-6-93	B		B				
Cabezas Acero Kikapoo, S.A.								
Cd. Frontera, Coahuila, Mexico	8-1-95	Α						
CGTX, Inc.								
Montreal, Quebec	9-23-96	B						
Moose Jaw, Saskatchewan	11-13-96	B						
Red Deer, Alberta	11-13-96	B			****			

*Not certified for TC128.

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TABLE B1 (Continued)

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CERTIFIED FACILITY	
$\frac{\text{MATERIAL} \rightarrow 1 2 3 4 7 1}{\text{GROUP}}$	6
EXPIRATION DATE	
CN Rail	
Winnipeg, Manitoba 1-22-96 B*	
Colorado Industrial Rail Company	
Sterling, Colorado 1-27-98 B B B	
Columbiana Boiler Company	
Columbiana, Ohio 8-24-93 D* D D*	
Carros de Ferrocarril de	
Durango, SA	
Durango, Dgo. Mexico 2-27-96 B	
Continental-COF Company	
Atchison, Kansas 3-28-96 B	
Coors Brewing Company	
Golden, Colorado 8-4-96 D	
Crystal Car Line, Inc.	
Argo, Illinois 9-19-93 B B	
Derby Tank Car & Mfg., Inc.	
Ekron, Kentucky 1-2-95 B	
Fitzgerald Railcar Services	
Fitzgerald, Georgia 1-18-94 B	
Frit Car and Equipment Inc.	
Brewton, Alabama 8-15-94 B	
Bridgeton, North Carolina 3-24-97 B	
General American Trans. Corp.	1991 A
Colton, California 8-15-94 B B B	Nine dan la
Deer Park, Texas 11-11-95 B B B	
East Chicago, Indiana 3-10-97 B B B B	
Hearne, Texas 10-21-95 B B B B	
Waycross, Georgia 1-5-98 B B B B	-
General Electric Railcar Repair	
Services Corp.	
East Camden, Arkansas 6-17-96 B B B	
Ranger, Texas 9-16-95 B B	
Regina, Saskatchewan 11-13-94 B	
Sayre, Pennsylvania 7-2-94 B	
Texarkana, Arkansas 9-10-95 B B B	
General Railway Services, Inc.	
Suffolk, Virginia 1-29-97 B	

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TABLE B1 (Continued)

	CATEGORY →		Ι			II	III	
CERTIFIED FACILITY	$\begin{array}{l} \text{MATERIAL} \rightarrow \\ \text{GROUP} \end{array}$	1	2	3	4	7	1	6
	EXPIRATION DATE							
Glenco Railcar Service	6 6 06	D						
Unana, Nebraska	0-0-30	D						Tanka a second
Gordon Georgia	1-27-94	A *						
Heritage Railway Service Inc								
Taft. California	11-8-96	В						
Hockley Bail Car Company		_						
Hockley, Texas	5-4-95	В	В					-
Hugo Railcar. Inc.								
Hugo, Oklahoma	5-11-97	В						
IEI Container Services Corp.								
Cedar Rapids, Iowa	5-23-94	B						
Interstate Railcar Service, Inc. Chicago Heights, Illinois	2-22-95	в						
Itel Rail Corporation								
Railcar Services Group								
Channelview, Texas	8-15-94	В	В	В				
Junction City, Kansas	5-13-95	B						
LOX Equipment Company								
Delphi, Indiana	5-13-96	Α	Α	Α	A			
Maryland Rail Car, Inc.		_	_	_				
Elk Mills, Maryland	3-17-93	В	В	В				
Mobil Oil Corporation		-						
Kansas City, Kansas	6-3-93	В						
National Rail Car, Inc.								
Roscoe, Texas	5-1-94	В						
PDS Rail Car Services Corp.		~						
Calgary, Alberta	8-28-96	B						
Pennzoil Sulphur Company	F 00 0F	70*						
Rustler Springs, Texas	5-30-95	R.						
Phillips 66 Company	F 1.04	ъ						
Filthert Thurs	0-1-94 6 0 07	D D						
Elikhart, lexas	0-9-91	Б						
Process Engineering, Inc. Plaistow New Hampshire	11-19-94	Δ		Δ				
Process Limited	11-10-04			n				
Edmonton Alberta	10-25-95	R		B				
Montreal East. Quebec	10-29-96	B	B	B				
Oakville, Ontario	8-4-96	A	A	A				
Regina, Saskatchewan	12-13-94	В						
Sarnia, Ontario	1-16-96	B	B					

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TABLE B1 (Continued)

	CATEGORY →			I			II	III
CERTIFIED FACILITY	$\begin{array}{c} \text{MATERIAL} \rightarrow \\ \text{GROUP} \end{array}$	1	2	3	4	7	1	6
	EXPIRATION DATE ↓							
Rail Services, Inc.	•	_						
Calvert City, Kentucky	5-21-97	B						
Rescar Inc.		_						
Cedar Rapids, Iowa	5-26-97	B	_	-				
Du Bois, Pennsylvania	5-15-94	B	B	B				
Longview, Texas (Service Drive)	1-5-98	B	B	B				
Longview, Texas (Wilson Road)	4-9-96	B	B	B				
Orange, Texas	10-3-96	в	R	В				
Rocky Mountain Railcar Inc.			_					
Hudson, Colorado	1-27-97	B*	B					
Safety Railway Service								
Tulsa, Oklahoma	7-9-97	B	B	B				
Victoria, Texas	11-13-96	В	B	B				
Septa Rail Inc.								
Coteau-du-Lac, Quebec	9-12-96	B						
Shippers Car Line, Inc.								
Bude, Mississippi	3-29-93	В						
Silvan Industries, Inc.								
Marinette, Wisconsin	8-14-94						D*	
Thuck Car Corn of America								
Oreland Penneylyania	3-10-97	R	R					
	5 10 01	D	2					
Husbustons Eds. de Movins	0.96.02	٨						
Huendecoca, Edo. de mexico	5-20-55	A						
Texana Tank Car & Manufacturing	C 0 07							
Nash, lexas	0-9-97	A	A	A				
Texas Tank Car Works		-						
Plum, Texas	11-13-97	В						
San Angelo, Texas	5-7-95	в						
TMC Engineering Services		-						
Houston, Texas	5-1-94	В						
Transcisco Rail Services Co.								
Miles City, Montana	10-2-97	B						
Rock Springs, Wyoming	10-30-94	B						
Sioux City, Iowa	5-14-96	B						
Transco Railway Products Inc.								
Oelwein, Iowa	4-3-97	В						
TransiTech, Inc.								
Fordyce, Arkansas	10-24-94	В						
Trenton Works Lavalin, Inc.								
Trenton, Nova Scotia	10-7-93	A						

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TABLE B1 (Continued)

	CATEGORY →		/	Ι			II	III
CERTIFIED FACILITY	$\begin{array}{c} \text{MATERIAL} \rightarrow \\ \text{GROUP} \end{array}$	1	2	3	4	7	1	6
	EXPIRATION DATE							
Trinity Industries, Inc.								
Beaumont, Texas (Pl. 118)	3-16-95	В		в				
Butler, Pennsylvania (Pl. 10)	11-20-96	B		B				
Dallas, Texas (Pl. 74)	1-7-96	Ā	Α	Ā				
Denton, Texas (Pl. 23)	11-1-95	A		Ā			Į	
Fort Worth, Texas (Pl. 22)	10-17-93	D		D				
Fort Worth, Texas (Pl. 26)	8-1-95	Ā		Ā				
Fort Worth, Texas (Pl. 68)	10-30-94	A		Ā		-10 ₁ , AddW = 1		
Houston, Texas (Pl. 62)	10-30-94	A		A				
Longview, Texas (Pl. 17)	5-16-96	A		A				
Longview, Texas (Pl. 19)	5-20-95	B		B				
Longview, Texas (Pl. 110)	5-23-93	Ã		Ā		1		
Montgomery, Alabama (Pl. 67)	9-10-95	B		B				
Oklahoma City, Oklahoma (Pl. 18)	1-25-98	Ā		Ã				
Saginaw Texas (Pl 25)	9-25-93	B		B				
Saginaw Texas (Pl. 109)	10-16-97	ñ	B	B				
San Antonio, Texas (Pl. 63)	3-16-95	Ř	2	B			1	
Tilsa, Oklahoma (Pl. 27)	7-26-97	Ă	Α	Ă				
Triple (Railcor Inc			**					
Wilmington Delawara	9-91-94	R						
Winnington, Delaware	2-21-34	D						
Union Tank Car Company	F 14.0F	р	р	ъ				
Altoona, Pennsylvania	5-14-95	B	B	B				
Cleveland, Texas	5-12-95	B	В	в		ļ		
East Chicago, Indiana (Pl. 1)	3-25-95	A	A	A	A	The second se		
El Dorado, Kansas	8-8-93	В	В	B				
El Segundo, California	1-3-98	B		В				
Evanston, Wyoming	12-16-95	В	B	B			-	
Longview, Texas	9-10-95	B	В	B				
Marion, Ohio	11-18-97	B	B	B				
Muscatine, Iowa	3-25-95	B	B	B				
Valdosta, Georgia	9-23-97	В	В	В			-	
Ville Platte, Louisiana	10-3-94	В	В	В				
Westlake Metal Fabrication Corp.						Î	terrer in the	
Sheldon, Texas	8-19-93	Α	Α	Α				
Zwolle Rail Car Co.								
Zwolle, Louisiana	6-17-96	В						

*Not certified for TC128.

Key: A Certified to fabricate, repair, convert, alter or assemble.

B Certified to repair, convert, alter or assemble.

D Certified to fabricate or repair tanks. Confined to tank car tanks that are moved to and from the facility without trucks (running gear).

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EXHIBIT B-1

SUBCONTRACTOR EVALUATION SHEET (TO BE RETAINED BY CERTIFIED FACILITY)

SUBCONTRACTOR NAM	IE	
PLANT LOCATION		
PRODUCT OR SERVICE		
PERSON CONTACTED	NAME	POSITION
	1. AN.	• • • • • • • • • • • • • • • • • • • •

1.0 SPECIFICATIONS AND PROCEDURES:

- 1.1 Does subcontractor have applicable AAR Specifications and/or procedures to provide necessary product and/or service?
- 1.2 List specifications and/or procedures applicable to product or service.

2.0 MANUFACTURING EQUIPMENT

2.1 Prepare listing of applicable equipment.

EQUIPMENT	MFG. NAME	TYPE	MODEL OR SERIAL NO.	CAPACITY
				and a state of a state and a state of the st
alt an anna an anna an anna an anna an anna an an	and a second sec	A: A #M	cial al plant a distance reaction and a second	
	and a second		JA R	144-1 11-1 (
	string-residence and all the second second			August on ongen is generalized automatication advanta to a
ан талана ал ал ан	ala mana any amin'ny faritr'o ana amin'ny faritr'o amin'ny faritr'o amin'ny faritr'o amin'ny faritr'o amin'ny f	-consistence and the state of the second sector of $\tau \to - \tau^{1/2}$.		

3.0 POSTWELD HEAT TREATMENT

3.1 Identify furnace, manufacturer, size, controller-recorded equipment:



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	3.2	Does subcontractor have written procedure for maintenance of temperature recorders?	postweld heat treatment and for calibration and				
	3.3	Are thermocouples attached to work piece or o	lo they record furnace temperature?				
	3.4	If thermocouples are not used, how is the heatin	g cycle monitored?				
3.5 Are calibration records, furnace load records or other records of control on file a required?							
4.0	DE	STRUCTIVE AND/OR NONDESTRUCTIVE	TESTING				
	4.1	Is testing done in plant?					
	4.2	Check method(s) that testing vendor uses					
		Magnetic particle (dry)	Liquid penetrant				
		Magnetic particle (wet)	Ultrasonic				
		Fluorescent penetrant	Radiography				
		Tension & bend	Hardness				
	4.3	Does subcontractor have written procede	ures for method(s) of testing employed? in our files?				
	4.4	List certifications held by subcontractor personnel.					
	4.5	List methods for calibration of equipment.					
	4.6	Are subcontractor reports (radiographic, ult personnel? If so, by whom?	rasonic) verified by other than subcontractor				

AND AND

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4.7 List equipment and/or supplies used in testing.

EQUIPMENT	MFG. NAME	TYPE	MODEL OR SERIAL NO.	CAPACITY
	Automatical and the second states a		annan mar mar ann an ann an tao ann an tao an an tao ann	
	abopting a starting of all the same second environmental second s			
$N_{\rm R} = - 1$ if $N_{\rm c}$ with $\sigma_{\rm c} = P_{\rm c} + 1$ and a substantial matrix matrix matrix	where i blacksterme on the black down a_i . Mol $\rightarrow - FW W W T$			
a in a filler manifest managementation	annanisenski kansalanan kanana anana an in Madrin ya 11			

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EXHIBIT B-2

AAR TANK CAR COMMITTEE SHOP EVALUATION

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TO: Director of Technical Committees

Location: Address	FA	CILITY		10-10-10-10-10-10-10-10-10-10-10-10-10-1					
City		Location: Address		анан ал ан	t a taratana				
Requested Class: A B D Categories: I II III Material Groups: 1 2 3 4 6 7 including/excluding TC128 A. PUBLICATIONS 1. Are copies current: AAR Specs. for Tank Cars Field Manual Office Manual 2. Other Mechanical Division publications on hand 3. B of E Tariff 6000 FRA Safety Appliance Manual B. WELDERS 1. Check welder performance qualifications and welding procedure for results and tank car materials per Appendix M 2. Are the welders whose qualifications were submitted employed at this shop? 3. Have welders requalified in last two years (Class B shops only)? C. SUPERVISION 1. Confirm names, titles, duties of shop and quality control personnel. List those interviewed		City	State	Phone					
Material Groups: 1 2 3 4 6 7 including/excluding TC128 A. PUBLICATIONS 1. Are copies current: AAR Specs. for Tank Cars Field Manual Office Manual 2. Other Mechanical Division publications on hand 3. B of E Tariff 6000 FRA Safety Appliance Manual B. WELDERS 1. Check welder performance qualifications and welding procedure for results and tank car materials per Appendix M 2. Are the welders whose qualifications were submitted employed at this shop? 3. Have welders requalified in last two years (Class B shops only)? C. SUPERVISION 1. Confirm names, titles, duties of shop and quality control personnel. List those interviewed		Requested Class: A B D		Categories: I	II III				
A. PUBLICATIONS 1. Are copies current: AAR Specs. for Tank Cars Field Manual Office Manual 2. Other Mechanical Division publications on hand 3. B of E-Tariff 6000 FRA Safety Appliance Manual B. WELDERS 1. Check welder performance qualifications and welding procedure for results and tank car materials per Appendix M 2. Are the welders whose qualifications were submitted employed at this shop? 3. Have welders requalified in last two years (Class B shops only)? C. SUPERVISION 1. Confirm names, titles, duties of shop and quality control personnel. List those interviewed		Material Groups: 1 2 3 4	6 7 including/exclud	ding TC128					
1. Are copies current: AAR Specs. for Tank CarsField ManualOffice Manual	A .	PUBLICATIONS	an ann		Anamanan Asarah (Asara) (As				
2. Other Mechanical Division publications on hand 3. B of E Tariff 6000 FRA Safety Appliance Manual B. WELDERS 1. Check welder performance qualifications and welding procedure for results and tank car materials per Appendix M 2. Are the welders whose qualifications were submitted employed at this shop? 3. Have welders requalified in last two years (Class B shops only)? C. SUPERVISION 1. Confirm names, titles, duties of shop and quality control personnel. List those interviewed 2. Is quality control independent of production supervision? 3. Confirm employment of welding inspector and radiographer per B4.01 D. RADIOGRAPHY AND POSTWELD HEAT TREATMENT 1. Confirm location of, or check on-site: Radiography equipment PWHT facilities Check a few radiographs and PWHT charts for quality and compliance		1. Are copies current: AAR S	Specs. for Tank Cars	Field Manual Office Manual					
3. B of E Tariff 6000 FRA Safety Appliance Manual B. WELDERS 1. Check welder performance qualifications and welding procedure for results and tank car materials per Appendix M 2. Are the welders whose qualifications were submitted employed at this shop? 3. Have welders requalified in last two years (Class B shops only)? C. SUPERVISION 1. Confirm names, titles, duties of shop and quality control personnel. List those interviewed		2. Other Mechanical Division	publications on hand						
B. WELDERS 1. Check welder performance qualifications and welding procedure for results and tank car materials per Appendix M		3. B of E Tariff 6000	FRA Safety A	ppliance Manual					
	В.	WELDERS	<u> </u>						
2. Are the welders whose qualifications were submitted employed at this shop? 3. Have welders requalified in last two years (Class B shops only)? C. SUPERVISION 1. Confirm names, titles, duties of shop and quality control personnel. List those interviewed 2. Is quality control independent of production supervision? 3. Confirm employment of welding inspector and radiographer per B4.01 D. RADIOGRAPHY AND POSTWELD HEAT TREATMENT 1. Confirm location of, or check on-site: Radiography equipment PWHT facilities 2. Check a few radiographs and PWHT charts for quality and compliance 3. Where are films kept?		1. Check welder performance qualifications and welding procedure for results and tank car materials per Appendix M							
3. Have welders requalified in last two years (Class B shops only)? C. SUPERVISION 1. Confirm names, titles, duties of shop and quality control personnel. List those interviewed 2. Is quality control independent of production supervision? 3. Confirm employment of welding inspector and radiographer per B4.01 D. RADIOGRAPHY AND POSTWELD HEAT TREATMENT 1. Confirm location of, or check on-site: Radiography equipment PWHT facilities 2. Check a few radiographs and PWHT charts for quality and compliance 3. Where are films kept?		2. Are the welders whose qualifications were submitted employed at this shop?							
C. SUPERVISION 1. Confirm names, titles, duties of shop and quality control personnel. List those interviewed		3. Have welders requalified in	last two years (Class B	shops only)?					
1. Confirm names, titles, duties of shop and quality control personnel. List those interviewed 2. Is quality control independent of production supervision? 3. Confirm employment of welding inspector and radiographer per B4.01 D. RADIOGRAPHY AND POSTWELD HEAT TREATMENT 1. Confirm location of, or check on-site: Radiography equipment PWHT facilities 2. Check a few radiographs and PWHT charts for quality and compliance 3. Where are films kept?	c.	SUPERVISION	PE 1994 249-90-90-90-90-90-90-90-90-90-90-90-90-90		ann nannaann na 270 tae 🥆 a				
2. Is quality control independent of production supervision? 3. Confirm employment of welding inspector and radiographer per B4.01 D. RADIOGRAPHY AND POSTWELD HEAT TREATMENT 1. Confirm location of, or check on-site: Radiography equipment PWHT facilities 2. Check a few radiographs and PWHT charts for quality and compliance 3. Where are films kept? For how long?		1. Confirm names, titles, dutie	es of shop and quality co	ontrol personnel. List those interviewe	≽d				
3. Confirm employment of welding inspector and radiographer per B4.01 D. RADIOGRAPHY AND POSTWELD HEAT TREATMENT 1. Confirm location of, or check on-site: Radiography equipment PWHT facilities 2. Check a few radiographs and PWHT charts for quality and compliance 3. Where are films kept? For how long?		2. Is quality control independe	nt of production superv	rision?					
 D. RADIOGRAPHY AND POSTWELD HEAT TREATMENT 1. Confirm location of, or check on-site: Radiography equipment PWHT facilities 2. Check a few radiographs and PWHT charts for quality and compliance Where are films kept? For how long? 		3. Confirm employment of well	ding inspector and radio	ographer per B4.01	utus petiekkelis kes				
 Confirm location of, or check on-site: Radiography equipment PWHT facilities Check a few radiographs and PWHT charts for quality and compliance Where are films kept? For how long? 	D.	RADIOGRAPHY AND POS	TWELD HEAT TREA	TMENT					
Radiography equipment		1. Confirm location of, or che	ck on-site:						
PWHT facilities 2. Check a few radiographs and PWHT charts for quality and compliance 3. Where are films kept? For how long?		Radiography equipment			union for communic and advector reason				
 Check a few radiographs and PWHT charts for quality and compliance Where are films kept? For how long? 		PWHT facilities			and a right state of the state				
3. Where are films kept? For how long?		2. Check a few radiographs an	d PWHT charts for qua	lity and compliance					
		3. Where are films kept?	ann ann an ann an ann ann ann an ann an	For how long?					

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E. OTHER SHOP FACILITIES 1. Check: Welding rod ovens ____, Hydrotest equipment ____, Safety valve test device ____ 2. Shop equipment per list submitted with request -F. QUALITY CHECK 1. Examine work in progress: Welding _____ Welding Procedure _____ Stenciling _____ Sandblast-paint _____ Lining _____ 2. Workmanship and shop practices 3. Comments and a start of the second second second second second G. MISCELLANEOUS 1. Size of work force _____ Tracks under roof _____ 2. Shop dedicated to 3. General comments H. RECOMMENDATION

I/We inspected this facility on	(date) and found/did not find	the equipment, personnel
and records to be as listed in	the request for certification dated	
recommend/do not recommend cer	tification of this facility as Class	, Categories
, Materials Groups	, including/not including TC-128.	

Inspector(s)

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