Marine Safety (G-M/TP24), Room 2408, U.S. Coast Guard Headquarters, 2100 Second St., S.W., Washington, D.C. 20590 (202) 426-2299.

SUPPLEMENTARY INFORMATION: On October 4, 1979, the Coast Guard published a proposed rule (44 FR 57137) concerning this amendment. Interested persons were given until November 19, 1979, to submit written comments. No public hearing was held. One comment was received.

Drafting Information

The principal persons involved in drafting this regulation are: Lieutenant (jg) Phillip J. Heyl, Project Manager, Officer of Merchant Marine Safety, and Lieutenant Jack Orchard, Project Attorney, Office of the Chief Counsel.

Discussion: The only comment received was submitted by the Greater Sitka Chamber of Commerce, Inc. In its comment, the Chamber of Commerce suggested that either the Customs Service officer in Sitka continue to perform the vessel documentation work at Sitka or that it be performed by personnel at the Sitka Coast Guard Air Station. Additionally, the Sitka Chamber of Commerce expressed the opinion that the revocation of the designation of Sitka as a port of documentation would be detrimental to the efforts to encourage bottom fishing in surrounding waters and to the building of a freezing and processing plant.

When the vessel documentation functions were transferred from the Customs Service to the Coast Guard in February 1967, no documentation position was transferred to perform the vessel documentation work at Sitka. The Customs Service agreed to permit their employee at Sitka to perform vessel documentation functions when it did not interfere with his customs work. Although the formal agreement terminated in 1968, the arrangement was continued informally. On July 3, 1973, the District Director of Customs met with the Commander of the Seventeenth Coast Guard District and repeated his previously expressed desire that the Coast Guard assume the Coast Guard vessel documentation work in Sitka as well as in the other places in Alaska where the Customs Service was performing the work.

By 1974, perhaps due to an increased Customs Service workload, there was a decrease in productivity of vessel documentation work performed in Sitka, and it became necessary for Coast Guard vessel documentation personnel from Juneau to periodically travel to Sitka to handle documentation applications presented at Sitka. After 1977, the necessity for trips to Sitka increased in frequency and culminated with the decision in late 1978 to transfer the Sitka records to Juneau. This was deemed necessary for purposes of efficiency and economy. For the past several months all vessel documentation work for Sitka has been performed at Juneau on a timely basis. No complaints have been received as to the timeliness of the documentation service, the mail service, or in any respect. Coast Guard personnel at the Sitka Coast Guard Air Station are trained in the specific requirements for air station assignments. The requirements and training for performing the vessel documentation functions are not compatible with the nature and requirements of air station assignments. The Customs Service will continue to renew licenses and endorse changes of master at the Sitka Customs Office as these are the most frequently occurring vessel documentation transactions. The Coast Guard does not feel that the revocation of Sitka as a port of documentation will have any impact on the development of bottom fishing or the building of a freezing or processing plant.

Effective on March 14, 1980 the Coast Guard will:

(a) Close the documentation office at Sitka and—

(1) Transfer its documentation records to the Commanding Officer, Marine Safety Office, Juneau, Docmentation Branch, 612 Willoughby Avenue, Juneau, Alaska, 99801[1]

(2) Designate Juneau as the home port of all vessels now having Sitka as their home port.

(b) Close the documentation office at Wrangell and—

(1) Transfer its documentation records to Supervisor, USCG Marine Safety Detachment, Documentation Branch, c/o Coast Guard Base, Ketchikan, Alaska 99901.[1]

(2) Designate Ketchikan as the home port of all vessels now having Wrangell as their home port.

Furthermore, an editorial error in the designation of the Marine Inspection Zones and Ports of Documentation in the Seventeenth Coast Guard District has been uncovered. The Marine Inspection Zone entry of "Juneau" should read "Southeast Alaska" and the port of documentation designation of "Southeast Alaska" should read "Juneau."

This proposal has been reviewed under the Department of Transportation's Regulatory Policies and Procedures" (44 FR 11034), February 26, 1979. A final evaluation of the proposal has been prepared and has been included in the public docket.

In consideration of the foregoing, the Coast Guard amends Part 66 of Title 46 of the Code of Federal Regulations by revising the following entry to read as follows:

§ 66.05-1 Ports of documentation.

* * * * *

Seventeenth	Southeast Alaska	Juneau, Alaska. Ketchikan, Alaska.

(23 Stat. 118 (46 U.S.C. 2); 43 Stat. 947 (46 U.S.C. 18); 80 Stat. 937 (49 U.S.C. 1611(b)(1)); 46 CFR 67.23-11; 49 CFR 1.46(b))

Dated: February 7, 1980.

J. B. Hayes,

Admiral, U.S. Coast Guard Commandant.

[FR Doc. 80-4781 Filed 2-13-80; 8:45 am]

BILLING CODE 4910-14-M

Research and Special Programs Administration

49 CFR Part 192

[Amdt. 192-34A, Docket PS-54]

Transportation of Natural and Other Gas by Pipeline; Joining of Plastic Pipe

February 11, 1980.

AGENCY: Materials Transportation Bureau.

ACTION: Final rule.

SUMMARY: A final rule was published July 23, 1979, (Amdt. 192-34; 44 FR 42068), establishing tests for qualifying procedures and personnel to make all types of joints in plastic pipeline used in the transportation of natural and other gas by pipeline. The docket was held

[1] Note address change since NPRM of October 4, 1979.

open until September 30, 1979, for further comments.

In response to comments, MTB has made certain changes to that final rule. The most significant changes: (1) permit the use of any force on a specimen lateral joint that initiates failure, (2) permit tensile testing at ambient temperature and humidity; (3) more clearly define the criteria for test specimen acceptance or failure; (4) permit joining of pipe and fittings manufactured before July 1, 1980, in accordance with existing procedures without requalifying those procedures; (5) permit alternative test methods for qualifying persons to make heat fusion, solvent cement, or adhesive joints; and (6) redefine and limit the conditions under which a person must requalify to make plastic pipe joints.

EFFECTIVE DATE: July 1, 1980.

FOR FURTHER INFORMATION CONTACT: Paul J. Cory, (202) 426-2392.

SUPPLEMENTARY INFORMATION: Final rules (Amendment 192-34) were published (44 FR 42968, July 23, 1979) establishing tests for qualifying procedures and personnel to make all types of joints in pipelines used in the transportation of natural and other gas.

In the preamble of the final rules, MTB invited further comments concerning the effect upon safety of three amendments: (1) The addition of new § 192.283(a)(1), which established alternative burst tests for qualifying plastic pipe joining procedures (Paragraphs 8.6 or 8.7 of ASTM D2513); (2) repeal of the existing requirement in § 192.281(a) for qualifying mechanical joining procedures by burst testing specimen joints; and (3) the use of an impact-type test under new § 192.283(a)(2) to qualify the tensile strength of lateral connections. In addition to the specific comments requested on these three amendments, many other comments were submitted on the final rule. Most of these additional comments have been treated by MTB as petitions for reconsideration, and are being considered in this document. Several of the additional comments are not being treated as petitions for reconsideration because the comments requested action that would go beyond the scope of the notice or proposed rulemaking (NPRM) (43 FR 49334). In view of the extended comment period and MTB's reconsideration of the final rule in this document, the docket will not remain open for 30 days following publication of this document in the Federal Register for receipt of petitions for reconsideration under 49 CFR 106.35. Instead, any further comments or petitions received in Docket PS-54 will be treated as petitions for rulemaking.

In response to the request for comments to the final rule, 43 persons submitted comments. Although most commenters represented themselves or their companies, at least five commenters were representing industry groups that included the American Gas Association, the New England Gas Association, the Pennsylvania Gas Association, the Plastic Pipe Institute, and the Texas Gas Association. The disposition of comments, including those treated as petitions for reconsideration, together with the reasons for accepting or rejecting these comments follow:

Who Can Qualify Joining Procedures

Seven commenters argued that the regulations should state that operators may qualify their own joining procedures by performing the required tests or basing the qualification on testing done by others, such as the manufacturers of the pipe or fittings involved, other operators, or other qualified persons. MTB wishes to emphasize that for compliance with the new §§ 192.283 and 192.285, just as for compliance with other testing requirements of Part 192, it does not matter who does the qualification testing, either the operator or someone else, but the operator is bound to assure that proper testing is done. If the operator adopts a procedure that was improperly qualified by himself or others, it is still the operator who is responsible for compliance on his pipeline. Because the ultimate duty of compliance with the testing requirements lies with the operator, the regulations do not state who may do the required testing, but only establish that such testing be performed.

Qualifying Procedures To Make Joints

Burst Tests. There were eight commenters who recommended that under § 192.283(a)(1), the burst testing of heat fusion, solvent cement, or adhesive joints be limited to the sustained pressure test (ASTM D1598) as modified by Paragraph 8.6 of ASTM D2513. If adopted, this recommendation would eliminate the use of the minimum hydrostatic burst pressure test (ASTM D1599) as modified by Paragraph 8.7 of ASTM D2513 that was originally proposed in the NPRM and included in the final rule. These commenters state that the sustained pressure test is a much more severe test that would detect flaws that would not be detected by the minimum hydrostatic burst pressure test. Although MTB agrees with this latter statement, we also believe that the minimum hydrostatic burst pressure test in combination with the required tensile testing will detect the flaws that would cause failure under service conditions. At least three commenters concurred with MTB in the use of this test, citing their own successful experience. One commenter also recommended eliminating all burst tests as ineffective. Because of conflicting opinions and lack of solid data to support use of only the more stringent test, MTB is retaining the burst test requirements as issued.

Lateral Connections. With one exception, all those who commented on the use of the impact test for qualifying procedures for making joints on lateral connections agreed that it was a valid test. Of those commenters agreeing with the use of the impact test, there were five who suggested methods other than impact for deforming the test specimen (such as by torsion, bending, and pinching or combinations of these). Since failure of the specimen rather than the means of failure is the critical aspect of the text, MTB believes the suggested alternative test methods would be equally as effective as the impact test. The one commenter who disagreed with the use of an impact force to test lateral connections stated that it would be ineffective on service tees and may lead to dangerous practices. He offered no viable alternative other than visual inspections as are required under § 192.285(a)(2)(i) during qualification of persons to make joints. Because of the above, MTB has amended § 192.283(a)(2) in a manner to permit the use of a force of any kind in testing the strength of lateral connections rather than only permitting an impact force.

Two commenters considered that in § 192.283(a)(2), the phrase "pipe sections joined at right angles" implied the use of miter type joints. MTB does not agree with this since miter joints are clearly prohibited on plastic pipe in gas service by § 192.281(a). Thus, preparing a specimen lateral connection for testing in accordance with § 192.283(a)(2) would involve some type of fitting between pipe sections.

Criteria for Force Tests. At least two commenters suggested that the criterion for judging the failure of all types of specimen joints during testing should be clarified by indicating that the important point is where the failure initiates. MTB had intended this in the original wording and as a result has changed the phrase "failure occurs outside the joint area" to read "failure initiates outside the joint area" where appropriate in the final rule.

Tensile Tests. Three commenters objected to incorporation by reference of ASTM D638 as the tensile test for heat fusion, solvent cement, or adhesive

joints. One stated that the D638 requirements for specimen configurations were too exotic for practical use. A second suggested deleting D638 and specifying tensile requirements in the regulations. A third stated that a tensile test will not necessarily detect faulty butt-fusion joints. None of these commenters presented any data in support of their statements or recommended viable alternatives. Therefore, MTB is not convinced that it is inappropriate to incorporate by reference D638, the most widely recognized industry standard MTB is aware of that is intended to test the tensile strength of plastic pipe materials (which include a joint segment).

Several commenters pointed out that specifying particular temperature and humidity conditions for tensile pull testing will not effect improved test precision and does not simulate field use conditions, but adds to the cost of compliance. MTB agrees with this assessment in that the testing is intended to show whether joints meet the "go/no-go" criterion with the specific materials involved rather than to evaluate material properties. As a result, MTB has amended § 192.283(b)(1) to permit testing done under ASTM D638 to be performed at ambient temperature and humidity.

One commenter pointed out that in testing large diameter mechanical joints, the requirement for 5 pipe diameters between the joint and pulling machine grips in § 192.283(b)(3) would require massive tensile testing machines that are not available. In reviewing this problem, MTB recognizes that the intent of this requirement is to preclude any effect on the strength of the joint by attachment of the test sample to the testing apparatus. By changing to performance language, other means of eliminating this effect may be utilized. As a result, MTB has eliminated the requirement for 5 pipe diameters in favor of the performance requirement that the distance between the grips of the apparatus and the end stiffener may not affect the joint strength. This requirement has been relocated in § 192.283(b)(2).

Two commenters pointed out that ASTM D638 does not contain criteria for a "go/no-go" determination on joints being tested. Three commenters suggested the criteria should be failure of the specimen initiating outside the joint area or no less than 25% elongation of the specimen without failure. Based on similar criterion established for mechanical joints, MTB believes 25% elongation is an adequate indication of joint strength. The criterion of specimen failure is also valid because it relates joint strength to pipe strength and includes the important point that failure may not initiate in the joint area. As a result, the requirements of § 192.283(a)(2) for testing heat fusion, solvent cement, and adhesive joints have been amended to include these criteria. Similarly, for mechanical joints, failure of the specimen has been added as a test criterion to § 192.283(b) in addition to the 25% elongation standard that was included in the final rule.

Five commenters pointed out in regard to tensile tests for mechanical joints, that for larger pipe such as 16 inch diameter SDR 11 polyethylene pipe, the theoretical force resulting from a temperature change of 55.6° C (100° F) would be 90,000 pounds or greater. There are no mechanical fittings available that would withstand such tensile forces. MTB agrees with a suggested solution to this problem that would permit mechanical joining procedures on larger pipe to be qualified on the basis of actual resistance to tensile pull determined by the required testing, as long as the determined tensile strength of the joint does not exceed the manufacturer's rating. Because of this, MTB has amended the wording of § 192.283(b)(5) to permit such a practice.

One commenter stated that the regulations in § 192.283(b) for testing mechanical joints should recognize that there are mechanical fittings made to provide a gas seal only and others designed for both seal and longitudinal restraint. This commenter further argued that "seal only" mechanical joints should not be permitted to be used under conditions for which they were not designed by the manufacturer. In other words, operators should not be permitted to qualify these types of joints for use where longitudinal restraint is needed. The lead-in exception clause in § 192.283(b) was intended to exclude the "seal only" type joints from testing, but this point has been clarified in the final rules by limiting the applicability of § 192.283(b) to mechanical joints that are designed to withstand tensile forces, and for pipe 4 inches and larger where the specimen joint is permitted to be qualified at tensile strengths less than that of the pipe, the tensile stress permitted in the design calculation may in no case be more than the manufacturer's rating.

One commenter pointed out that in performing tensile testing of mechanical joints, the present wording of § 192.283(b)(8) would require excessive testing, since each pipe size for each wall thickness must be tested. This commenter argued that any joint that would qualify with heavy walled pipe would also qualify with lighter walled pipe. MTB has considered this point and believes there is no safety advantage in requiring each wall thickness of a particular size and material to be tested. Because of this, MTB is changing the newly designated requirement of § 192.283(b)(7) to permit testing of a heavier wall pipe joint to qualify joints made from pipe of the same material but with a lesser wall thickness.

One commenter stated that in testing mechanical joints, there seems to be confusion between qualifying a particular fitting and qualifying a procedure to properly install that fitting. He further stated that basing a plastic joining procedure upon destructively testing an entire test specimen has no more merit than destructively testing an entire welded assembly in qualifying a weld procedure. MTB does not agree with this because the final rule does not require the qualification of fittings but rather the qualification of joining procedures and persons who make joints with fittings. In § 192.283(b), we are also dealing with mechanical joints that have no similarity to welded joints. In addition, these tests are designed to compare joint strength to a stress level related to pipe strength. Thus, testing an assembly or joint specimen is considered appropriate.

At least nine commenters agreed with MTB that a burst test for mechanical joints is meaningless. There were no adverse comments.

Regarding § 192.283(c), seven commenters agreed that joining procedures needed to be available to inspectors and persons making joints, but not necessarily available at the job site as required by § 192.283(c). One commenter stated that if operators or inspectors need copies of each written procedure at the work site, they probably are not well qualified and should not be making joints. After reconsideration of this, MTB agrees that qualified persons joining and inspecting joints should know the applicable joining procedure thoroughly and as a result has deleted from § 192.283(c) the phrase "at the site where joining is accomplished." Under the final rule, copies would still have to be available to personnel.

One commenter pointed out that the wording of Amdt. 192-34 would preclude the use of considerable quantities of previously manufactured pipe and fittings now in warehouse stocks, the joining of which has been qualified by tests similar to those being required by this rulemaking, unless some provision is made to "grandfather" the continued

use of these materials. MTB agrees that such an economic loss would be unwarranted provided the joint produced by such materials using previously qualified procedures would be as strong as the pipe. As a result, MTB has added a new § 192.283(d) to permit the joining of material made before July 1, 1980, in accordance with procedures that the manufacturer certifies will produce a joint as strong as the pipe.

Qualifying Persons To Make Joints

Six commenters pointed out that in qualifying persons to make joints under § 192.285(a)(2)(i), mechanical joints could not be judged solely on the appearance of the completed joint. MTB did not intend this result because on mechanical joints the required inspection must be made during assembly to assure that the proper procedure is followed. Photographs showing each step of the assembly procedure on a qualified specimen joint are effective in providing a standard for comparison. In view of this comment however, MTB has inserted the phrase, "during and after assembly or joining," in the requirement which is relocated in § 192.285(b)(i) to make it clear that this visual examination must be performed at each step of the joining process.

Seven commenters proposed that test methods, in addition to destructively testing straps from a specimen joint, be permitted for qualifying persons to make heat fusion, solvent cement, or adhesive joints under § 192.285(a)(2)(ii). Convincing arguments were presented for using as a qualifying test any of the test methods permitted under § 192.283(a) for qualifying joining procedures as well as ultrasonic inspection. In addition, most of these comments emphasized that the term "destructively tested" requires a fracture of some part of the specimen, although this is often inappropriate because deformation of the joint area without fracture would detect flaws in the specimen by producing a failure or visible cracks. If a test shows no failure of the specimen under deformation or no visible cracks, a good joint is produced. In addition, some of these commenters argued in favor of allowing bending, torque, or impact forces to produce this deformation. After a thorough evaluation of these comments, the MTB is convinced that all of these methods will adequately detect significant flaws in joints being inspected and has amended the requirement which is relocated in § 192.285(b)(2) to permit, as personnel qualifying tests, for heat fusion, solvent cement, or adhesive joints, tests under §192.283(a) or examination by ultrasonic inspection showing no flaws that could cause failure. In addition, the existing test regarding the use of at least 3 longitudinal straps is changed by amending the words "destructively tested" to read "deformed by bending, torque, or impact."

One commenter recommended that in § 192.285(a)(2)(ii)(A) between the words "discontinuities" and "on" the phrase "greater than two millimeters average diameter" be added because heat fusion joints of 3 inches and larger diameter sometimes have small shrinkage voids that do not interfere with safe operation of the pipeline. MTB did not adopt this comment since no data was found to support the proposition that some voids can be identified as acceptable.

Four commenters stated that under § 192.285(a)(2)(ii), the longitudinal straps should be required to be taken 120° apart and not required at all on pipe less than 2 inches in diameter. MTB does not agree with this recommendation. We believe that specification of strap location would serve no useful purpose and that regardless of the pipe diameter, the straps provide a good means to visually inspect the cross section of the joint area as well as providing a manageable size specimen for additional testing. This requirement has been relocated in § 192.285(b)(iii).

Requalification of Persons to Make Joints. Nine commenters stated that in establishing a requirement for requalification of a person to make joints under § 192.285(b) that is based upon faulty joints, only joints left in the pipeline as satisfactory and later detected to be faulty by pressure testing or operation of the pipeline should be considered. These same commenters pointed out, however, that to determine who had made each joint that failed during operation of the pipeline would require excessive recordkeeping that would not be cost effective. While MTB agrees that only faulty joints left in the pipeline affect safety and that record-keeping required to determine who made a joint that fails during pipeline operation would be excessively costly, the underlying intent of this final rule is to preclude the existence of faulty joints before a pipeline goes into operation. The required pressure test under § 192.513 serves this intent by subjecting joints to at least 150 percent of the maximum allowable operating pressure which should detect faulty joints. For this reason, MTB has amended this requirement which is relocated in § 192.285(c)(2) to limit the joints considered in applying the requalification requirements to those found by pressure testing under § 192.513.

One commenter stated that requiring requalification on the basis of making 3 bad joints a year does not recognize that some persons may make only a few joints per year while others may make many times that in just one day. This commenter further pointed out that field conditions such as rain, snow, blowing dirt, trench cave-ins, equipment malfunctions, and material flaws would affect the joining process without reflecting a lack of skill or proper training. He suggested that for those persons making large numbers of joints, it would be more equitable to require requalification if 3 percent or more of the production joints left in the line by the person making joints were found unacceptable. MTB agrees with this because limiting the threshold for requalification to only 3 faulty joints per year could cause the most highly qualified persons to be disqualified as a result of the large number of joints that are made that may involve conditions beyond the joiner's control. Because of this, MTB has amended the requirement which is relocated in § 192.285(c)(2) to require a person to be requalified under the applicable procedure if 3 joints or 3 percent of the joints made, whichever is greater, are found unacceptable by the required pressure test under § 192.513.

Two commenters argued that requalification should be required for persons who during the preceding 12 months have not been tested under the applicable procedure or made acceptable production joints. Both of these commenters and a third commenter also recommended requiring an annual requalification. MTB proposed an annual requalification in the NPRM, but it was not adopted in the final rules in favor of a less stringent and less costly requirement. MTB does, however, agree that a person who has not made acceptable production joints in the preceding 12 months should be required to be requalified because it is likely that some details of the procedure would be forgotten. Thus, MTB has amended the requirement which is relocated in § 192.285(c)(1) to require requalification in a procedure when no joints are made under the procedure during a 12-month period.

Inspection of Joints

There were eleven commenters who stated that MTB's interpretation in the preamble of the final rules of § 192.273, indicating that an adequate inspection of a production joint cannot be performed by the person who makes the joint, is unrealistic, excessively expensive, and does not assure safety.

Comments indicated that in most cases the inspection requirement of § 192.273(c) is met by the person making the joint, but some operators do spot check joining performance by their personnel. One commenter stated that imposition of a second qualified joiner on every company crew for the purpose of inspection will not improve the joint quality or improve the safety of plastic pipe construction, but will increase the cost of construction substantially. Another commenter stated that during 1978, approximately 720,000 heat fusion joints were installed in his system (one of the largest in the U.S.) and the cost of having a second person inspect each of these would have been substantial. As a result of these comments and after reviewing the history and purpose of § 192.273(c), MTB is persuaded that interpreting § 192.273(c) to require a second person to inspect each joint is not cost effective and not consistent with the intent of the rule as originally written. Therefore, the inspection of joints in plastic pipe required under § 192.273(c) may be performed by the person making joints, provided that person also is qualified under § 192.287 as required by the new § 192.285.

In consideration of the foregoing, Part 192 of Title 49 of the Code of Federal Regulations is amended as follows:

1. By revising § 192.283 to read as follows:

§ 192.283 Plastic pipe; qualifying joining procedures.

(a) *Heat Fusion, Solvent Cement, and Adhesive Joints.* Before any written procedure established under § 192.273(b) is used for making plastic pipe joints by a heat fusion, solvent cement, or adhesive method, the procedure must be qualified by subjecting specimen joints made according to the procedure to the following tests:

(1) The burst test requirements of Paragraph 8.6 (Sustained Pressure Test) or Paragaph 8.7 (Minimum Hydrostatic Burst Pressure) of ASTM D 2513.

(2) For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to a force on the lateral pipe until failure occurs in the specimen. If failure initiates outside the joint area, the procedure qualifies for use; and

(3) For procedures intended for nonlateral pipe connections, follow the tensile test requirements of ASTM D638, except that the test may be conducted at ambient temperature and humidity. If the specimen elongates no less than 25 percent or failure initiates outside the joint area, the procedure qualifies for use.

(b) *Mechanical Joints.* Before any written procedure established under § 192.273(b) is used for making mechanical plastic pipe joints that are designed to withstand tensile forces, the procedure must be qualified by subjecting 5 specimen joints made according to the procedure to the following tensile test:

(1) Use an apparatus for the test as specified in ASTM D638-77a (except for conditioning).

(2) The specimen must be of such length that the distance between the grips of the apparatus and the end of the stiffener does not affect the joint strength.

(3) The speed of testing is 5.0 mm (0.20 in) per minute, plus or minus 25 percent.

(4) Pipe specimens less than 102 mm (4 in) in diameter are qualified if the pipe yields to an elongation of no less than 25 percent or failure initiates outside the joint area.

(5) Pipe specimens 102 mm (4 in) and larger in diameter shall be pulled until the pipe is subjected to a tensile stress equal to or greater than the maximum thermal stress that would be produced by a temperature change of 55.6° C (100° F) or until the pipe is pulled from the fitting. If the pipe pulls from the fitting, the lowest value of the five test results or the manufacturer's rating, whichever is lower must be used in the design calculations for stress.

(6) Each specimen that fails at the grips must be retested using new pipe.

(7) Results obtained pertain only to the specific outside diameter, and material of the pipe tested, except that testing of a heavier wall pipe may be used to qualify pipe of the same material but with a lesser wall thickness.

(c) A copy of each written procedure being used for joining plastic pipe must be available to the persons making and inspecting joints.

(d) Pipe or fittings manufactured before July 1, 1980, may be used in accordance with procedures that the manufacturer certifies will produce a joint as strong as the pipe.

2. By revising § 192.285 to read as follows:

§ 192.285 Plastic pipe; qualifying persons to make joints.

(a) No person may make a plastic pipe joint unless that person has been qualified under the applicable joining procedure by—

(1) Appropriate training or experience in the use of the procedure; and

(2) Making a specimen joint from pipe sections joined according to the procedure that passes the inspection and test set forth in paragraph (b) of this section.

(b) The specimen joint must be—

(1) Visually examined during and after assembly or joining and found to have the same appearance as a joint or photographs of a joint that is acceptable under the procedure; and

(2) In the case of a heat fusion, solvent cement, or adhesive joint:

(i) tested under § 192.283;

(ii) Examined by ultrasonic inspection and found not to contain flaws that would cause failure; or

(iii) Cut into at least 3 longitudinal straps, each of which is—

(A) Visually examined and found not to contain voids or discontinuities on the cut surfaces of the joint area; and

(B) Deformed by bending, torque, or impact, and if failure occurs, it must not initiate in the joint area.

(c) A person must be requalified under an applicable procedure, if during any 12-month period that person—

(1) Does not make any joints under that procedure; or

(2) Has 3 joints or 3 percent of the joints made, whichever, is greater, under that procedure that are found unacceptable by testing under § 192.513.

(d) Each operator shall establish a method to determine that each person making joints in plastic pipelines in his system is qualified in accordance with this section.

(49 U.S.C. 1672; 49 U.S.C. 1804 with regard to offshore gathering lines; 49 CFR 1.53 and Appendix A of Part 1).

Issued in Washington, D.C., on February 11, 1980.

L. D. Santman,

Director, Materials Transportation Bureau.

[FR Doc. 80-4819 Filed 2-13-80; 8:45 am]

BILLING CODE 4910-60-M

National Highway Traffic Safety Administration

49 CFR Part 531

[Docket No. LVM 77-03; Notice 5]

Passenger Automobile Average Fuel Economy Standards; Exemption From Average Fuel Economy Standards

AGENCY: National Highway Traffic Safety Administration, Department of Transportation.

ACTION: Final decision to grant exemption from average fuel economy standards.

SUMMARY: This notice exempting Checker Motors Corporation (Checker) from the generally applicable average fuel economy standards of 19.0 miles per gallon (mpg) and 20.0 mpg for 1979 and 1980 model year passenger automobiles, respectively, and establishing

alternative standards is issued in response to a petition by Checker. The alternative standards are 16.5 mpg for the 1979 model year and 18.5 mpg for the 1980 model year.

DATE: The exemptions and alternative standards apply in the 1979 and 1980 model years.

FOR FURTHER INFORMATION CONTACT: Robert A. Mercure, Office of Automotive Fuel Economy Standards, National Highway Traffic Safety Administration, Washington, D.C. 20590 (202-755-9384).

SUPPLEMENTARY INFORMATION: The National Highway Traffic Safety Administration (NHTSA) is exempting Checker from the generally applicable passenger automobile average fuel economy standards for the 1979 and 1980 model years and establishing alternative standards.

These exemptions are issued under the authority of section 502(c) of the Motor Vehicle Information and Cost Savings Act, as amended (the Act). Section 502(c) provides that a manufacturer of passenger automobiles that manufactures fewer than 10,000 passenger automobiles annually may be exempted from the generally applicable average fuel economy standard if that generally applicable standard is greater than the low volume manufacturer's maximum feasible average fuel economy and if the NHTSA establishes an alternative standard applicable to that manufacturer at the level of its maximum feasible average fuel economy. In determining the manufacturer's maximum feasible average fuel economy, section 502(e) of the Act requires NHTSA to consider:

(1) Technological feasibility;

(2) Economic practicability;

(3) The effect of other Federal motor vehicle standards on fuel economy; and

(4) The need of the Nation to conserve energy.

This final rule was preceded by a proposed decision to grant Checker's request for exemptions in the 1979 and 1980 model years and to establish alternative standards of 17.6 mpg and 18.6 mpg, respectively. The proposed decision was published at 43 FR 49336; October 23, 1978. Two comments were submitted in response to the proposed decision. One comment came from a private citizen supporting the proposed decision, and stating that Checker automobiles were necessary to him as taxis, because he does not own an automobile. The other comment was submitted by Checker itself. Checker requested that the rulemaking be delayed on its petition until it had more exact fuel economy information available for its 1979 and 1980 model year automobiles.

The agency has all of the information referred to in Checker's comment except the official fuel economy figures for its 1980 automobiles. For the agency to establish a policy of consistently waiting to set an alternative standard for a particular model year until it had the official fuel economy figures for that model year's cars could adversely affect the agency's ability to require fuel economy improvements by the low volume manufacturers. Accordingly, the agency is proceeding with its rulemaking. If additional relevant information becomes available to Checker, it can submit that information in support of a petition for reconsideration of the rulemaking.

NHTSA's projection of Checker's maximum feasible average fuel economy for the 1979 model year was based on the following data:

Model type	Projected MY 1979 sales	Projected fuel economy level (miles per gallon)	Change in fuel economy compared with 1978
6-cylinder Federal	2,600	18.6	+0.1
6-cylinder California	1,400	17.0	+0.1
8-cylinder Federal	600	16.8	−0.2
8-cylinder California	145	12.6	−0.2
Total	4,745		

The net result of this projection was that Checker's 1979 maximum feasible average fuel economy level would be 17.6 mpg, the same as its maximum feasible average fuel economy level for the 1978 model year. This analysis assumed that Checker could use a lower rear axle ratio on its 6-cylinder models, and that use of this lower ratio would increase fuel economy by five percent. However, the agency projected that these models would have their maximum feasible fuel economy levels lowered by 0.8 mpg because of changes in the fuel economy testing procedures used by the Environmental Protection Agency (EPA). The net result was that NHTSA projected the 6-cylinder Checker models could show a 0.1 mpg increase in fuel economy for the 1979 model year. The 8-cylinder models were projected to have a 0.2 mpg loss in fuel economy because of EPA's test procedure changes.

NHTSA now has additional information which has caused this agency to revise downward its estimate of Checker's 1979 maximum feasible average fuel economy. Checker did use the lower rear axle ratio projected by the agency on its 6-cylinder models. However, the fuel economy levels actually achieved by Checker's 1979 models are significantly different from the projected fuel economy levels, as shown by the following table:

[Miles per gallon]

Model type	Forecast 1979 fuel economy	Actual 1979 fuel economy	Difference
6-cylinder Federal	18.6	16.9	−1.7
6-cylinder California	17.0	16.8	−0.2
8-cylinder Federal	16.8	15.8	−1.0
8-cylinder California	12.6	13.3	+0.7

As can be seen from this table, the NHTSA forecasts of the fuel economy that could be achieved by Checker's 1979 automobiles were overstated in three of the four cases. The reason for this difference apparently stems from the test-to-test variability in the EPA fuel economy tests when conducted on the same automobiles. When the same automobile is tested at different times according to the procedures specified by EPA, its tested fuel economy will not necessarily be identical in the two tests. The tested fuel economy can vary within a limited range. This variability cancels itself out when testing a large fleet of automobiles, with some models registering on the high side of the range and others registering on the low side. General Motors, for instance, tests about 260 vehicles annually to determine its corporate average fuel economy. Checker, however, tests only four vehicles annually, and three out of these four registered fuel economy on the lower side of the range. With this small sample, the effects of the test-to-test variability did not cancel out. It was not possible for NHTSA to predict the effects of this variability when calculating Checker's 1979 maximum feasible average fuel economy, and therefore, the possible effects of such variability were not considered in the proposed decision.

In addition to this, Checker has made some mix shifts in its 1979 fleet. The following table shows the projected sales assumed in the proposed decision and the sales mix which Checker actually will have for the 1979 model year:

Model Type	1979 Sales (Projected)	1979 Sales (Actual)
6-cylinder Federal	2600	3038
6-cylinder California	1400	1354
8-cylinder Federal	600	376
8-cylinder California	145	307

However, this mix shift did not increase or decrease Checker's 1979 average fuel economy. Thus, the difference between the projected maximum feasible average fuel economy for Checker of 17.6 mpg and that

actually achieved average fuel economy of 16.5 mpg for the 1979 model year is due to the car-to-car variability in the EPA fuel economy tests and the changes in the EPA test procedures from the 1978 to the 1979 model year.

Since Checker made all the technological improvements found by this agency to be feasible for the 1979 model year, and did not take any steps which would lower its fuel economy below the level projected by NHTSA, the fuel economy level actually achieved by Checker in its 1979 automobiles represents that company's maximum feasible average fuel economy. Accordingly, 16.5 mpg is determined to be Checker's maximum feasible average fuel economy for the 1979 model year.

In determining the fuel economy benefits to be gained from technological improvements projected by the agency for the 1980 model year, the agency has compared Checker's models for which no fuel economy data from EPA is yet available, with comparable vehicles for which 1980 EPA fuel economy test data already exists. This was done by selecting the models produced by General Motors, Checker's supplier of engines, transmissions, and emission control systems, which had the closest inertia weight, N/V, and dynamometer setting for the EPA fuel economy tests to those values for Checker's 1980 models. NHTSA then assumed that the ratio of the fuel economy of the General Motors models to the fuel economy of the Checker models would be related according to the following regression equation.

$$\frac{MPG_{Checker}}{MPG_{GM}} = \left(\frac{\text{Inertia Weight}_{GM}}{\text{Intertia Weight}_{Checker}}\right)^{0.4} \left(\frac{N/V_{GM}}{N/V_{Checker}}\right)^{0.4} \left(\frac{\text{Dyno HP Setting}_{GM}}{\text{Dyno HP Setting}_{Checker}}\right)^{0.18}$$

The methodology used in this rulemaking to determine the fuel economy benefits from projected technology differs in some respects from that typically used in the rulemaking to establish fuel economy standards for the larger manufacturers. When the agency establishes the generally applicable standards for the larger manufacturers, it is rulemaking several years in advance of the model years in question. The agency selects a baseline model year which is generally the most recent model year for which EPA test data exists. Then the agency projects the fuel economy benefits that could be obtained by making projected technological improvements to the baseline vehicles. Projecting the amount of the benefits is necessarily less accurate than actually testing baseline vehicles incorporating those improvements would be. However, since such modified baseline vehicles are not available several years in advance, the agency must rely on its methodology for projecting the benefits. The projected benefits and technological improvements are then incorporated in notices of proposed rulemaking and public comment are invited. For at least some of the projected items of technology, the manufacturers usually submit test data that permit the agency to refine its initial projections of the associated fuel economy benefits. The refined projections are then included in the final rules.

In this particular proceeding, however, NHTSA is not rulemaking in advance of the model years for which it is setting the standards. The vehicles subject to these standards have already been produced and have undergone EPA fuel economy tests, although test results for these particular vehicles have not yet been published by EPA. To determine the fuel economy benefits of the technology actually incorporated onto these vehicles, the agency does not have to use its less accurate projection methodology. Instead, NHTSA can now rely on actual tested EPA fuel economy figures for comparable vehicles to determine the aggregate benefits. NHTSA must, of course, continue to rely on its projection methodology with respect to technology which was feasible, but not included in the manufacturer's automobiles.

For the 1980 year, Checker is using a 229 cubic inch V-6 engine in all of its 6-cylinder models. Chevrolet also uses this engine in its Impala/Caprice models, and the Impala/Caprice has a tested combined fuel economy of 21.2 mpg using this engine. By inserting the respective values for this automobile and the 6-cylinder Checker model in the equation stated above, a fuel economy of 19.9 mpg is projected for the 6-cylinder Checker automobiles. However, the Chevrolet model uses an automatic transmission with a lock-up torque converter, while the Checker does not. This lock-up torque converter offers five percent better fuel economy than conventional automatic tramsmissions. When the projection for Checker's 6-cylinder models is adjusted to reflect this difference, NHTSA's projection of the fuel economy level which these vehicles will actually achieve becomes 18.9 mpg.

On its 8-cylinder models calibrated to comply with the 1980 Federal emission standards, Checker will use a 267 cubic inch V-8 engine. The Chevrolet Impala/Caprice station wagon using this engine showed a combined fuel economy of 18.2 mpg. By entering the appropriate values in the equation and subtracting five percent to account for the absence of a lock-up torque converter on Checker's model, NHTSA has determined that Checker's 8-cylinder Federal models will have a fuel ecomomy level of 16.6 mpg.

Finally, on its 8-cylinder models calibrated to meet the 1980 California emission standards, Checker will use a 305 cubic inch V-8 engine. The Chevrolet Impala/Caprice wagon is certified as complying with the California standards using the 305 cubic inch V-8 engine and without a lock-up torque converter in the transmission and achieving a fuel economy level of 16.6 mpg. By using the regression equation again, NHTSA determined that Checker's 8-cylinder models certified to comply with California's 1980 emission standards will have a fuel economy of 16.0 mpg.

By combining these fuel economy levels with the sales mix projected by Checker for the 1980 model year, NHTSA has determined that Checker's 1980 corporate average fuel economy will be 18.5 mpg.

To determine what Checker's maximum feasible average fuel economy is for the 1980 model year, the agency must consider not only the technological improvements which Checker did make and which resulted in its projected average of 18.5 mpg, but also the possiblity that Checker could have made additional improvements. In its proposed decision on this petition, NHTSA projected that the 1980 Checkers could incorporate a variety of changes from the 1979 Checkers. It was tentatively deemed feasible for Checker's 6-cylinder models to show a seven percent fuel economy improvement, four percent from the use of a small engine and three percent from the use of an automatic transmission

with a lock-up torque converter. Further, NHTSA proposed to determine that it would be possible for Checker's normal wheelbase 8-cylinder models to show a 2.5 percent fuel economy improvement because of changes in the EPA test procedures.

In fact, for the 1980 model year, Checker has made several fuel economy improving changes in addition to those projected as feasible by this agency in the proposed decision. Checker is using smaller engines for both its V-8 models, and Checker used these engines as soon as they became available from General Motors. Checker is using a 3-way catalyst on its 8-cylinder models, which also enables it to improve its fuel economy over the level NHTSA had proposed to determine as its maximum feasible level. Additionally, Checker has effected a mix shift by ceasing production of its 6-cylinder models calibrated to comply with the California emissions standards, and replacing these vehicles with the more fuel-efficent 49-State models.

Checker is, in fact, using the 6-cylinder engine which NHTSA had proposed be found feasible for Checker's use. For reasons beyond its control, Checker did not use the automatic transmission with lock-up torque converter which this agency had projected would be feasible for use by Checker in the 1980 model year.

At the time that NHTSA issued its proposed decision and projected that Checker could use an automatic transmission with a lock-up torque converter for its 1980 models, General Motors had stated that it would provide Checker with these transmissions. However, because of unforeseen technical problems with the transmissions, problems in obtaining emission certification from the EPA, and slowdowns which decreased the number of transmissions which General Motors could produce, that company did not produce enough of those transmissions for its own purposes. In light of this, General Motors decided that it would not be able to sell Checker the improved transmissions, and notified Checker of this decision during the summer of 1979. When Checker was notified of the unavailability of the transmissions, it was too late for Checker to seek an alternate supplier, make the necessary modifications to fit another supplier's transmission into its automobiles, and pass the EPA emission tests for the 1980 model year. Hence, NHTSA hereby determines that the change to the improved automatic transmission which was proposed as feasible for Checker in the 1980 model year was, in fact, not feasible, because of the unavailability of the improved transmission and the late date at which Checker was notified of its unavailbility.

Accordingly, NHTSA determines that the fuel economy level which Checker will achieve for the 1980 model year is Checker's maximum feasible average fuel economy for that model year.

Based on its conclusions that it is not technologically feasible and economically practicable for Checker to improve the fuel economy of its 1979 and 1980 model year automobiles above an average of 16.5 and 18.5 mpg, respectively, that other Federal automobile standards will not affect achievable fuel economy beyond the extent considered in this analysis, and that the national effort to conserve energy will be negligibly affected by the granting of the requested exemptions and establishment of alternative standards, this agency concludes that the maximum feasible average fuel economy for Checker in the 1979 and 1980 model years is 16.5 and 18.5 mpg, respectively. Therefore, the agency is exempting Checker from the generally applicable standards of 19.0 mpg and 20.0 mpg, and is establishing alternative standards of 16.5 mpg for the 1979 model year and 18.5 mpg for the 1980 model year.

In consideration of the foregoing, 49 CFR Part 531 is amended by revising § 531.5(b)(3) to read as follows:

§ 531.5 Fuel economy standards.

* * * * * *

(b) The following manufacturers shall comply with the standards indicated below for the specified model years:

* * * * *

(3) Checker Motors Corporation

Model year	Average fuel economy standard (miles per gallon)
1978	17.6
1979	16.5
1980	18.5

The agency has reviewed the impacts of this rule and determined that they are minimal. The particular manufacturer is favorably affected by this rule and the national effort at conserving fuel is negligibly affected by the granting of this exemption. This rule will not in any way increase costs for parties affected by it. Based on these factors, the agency determined that this is not a significant regulation within the meaning of Executive Order 12044.

Note: The program official and attorney principally responsible for the development of this final rule are Robert Mercure and Stephen Kratzke, respectively.

(Sec. 9, Pub. L. 89-670, 80 Stat. 931 (15 U.S.C. 1657); sec. 301, Pub. L. 94-163, 89 Stat. (15 U.S.C. 2002); delegation of authority at 49 CFR § 1.50.)

Issued on February 11, 1980.

Joan Claybrook,

Administrator.

[FR Doc. 80-4809 Filed 2-13-80; 8:43 am]

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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 26

Sport Fishing; Opening of Certain National Wildlife Refuges in Arizona, California and New Mexico

AGENCY: U.S. Fish and Wildlife Service, Department of the Interior.

ACTION: Special regulations.

SUMMARY: The Director has determined that the opening to sport fishing of certain National Wildlife Refuges in Arizona, California and New Mexico is compatible with the objectives for which these areas were established, will utilize a renewable natural resource, and will provide additional recreational opportunity to the public. This document establishes special regulations effective for the upcoming sport fishing season.

DATES: Effective on date of publication from January 1, 1980 through December 13, 1980.

FOR FURTHER INFORMATION CONTACT: The Area Manager or appropriate Refuge Manager at the address or telephone number listed below: Albert W. Jackson, Area Manager, U.S. Fish and Wildlife Service, 2953 West Indian School Road, Phoenix, AZ 85017. Telephone: 602-241-2487.

SUPPLEMENTARY INFORMATION:

General

Sport fishing is permitted on the National Wildlife Refuges indicated below in accordance with 50 CFR Part 33 and the following special regulations. Portions of refuges which are open to sport fishing are designated by signs and/or delineated on maps. No vehicle travel is permitted except on designated maintained roads and trails. Special conditions applying to individual refuges are listed on leaflets available at refuge headquarters and from the Office of the Regional Director, U.S. Fish and Wildlife Service, P.O. Box 1306, Albuquerque, NM 87103.

The Refuge Recreation Act of 1962 (16 U.S.C. 460k) authorizes the Secretary of