

(i) Rotate the upper pulley to feel for any bearing roughness, noise or lock-up.

(ii) Rotate clockwise for free wheeling and counterclockwise for engagement.

(5) The checks required by paragraphs (a)(2), (a)(3), and (a)(4) may be conducted by a pilot.

(6) Within the next 25 hours' time in service, and at 100-hour intervals thereafter, inspect the clutch assembly for proper oil level in accordance with the appropriate Enstrom maintenance manual. If there is extensive loss of oil, replenish the oil and service the clutch in accordance with standard instructions.

Note.— Enstrom Service Information Letter 0079A contains clutch servicing information.

(7) If any abnormalities are detected from the checks and inspections required by paragraphs (a)(2) through (a)(6), replace the clutch, P/N 28-13401-1, with an airworthy clutch assembly, P/N 28-13401-2, prior to further flight.

(8) Replace clutch assemblies, P/N 28-13401-1, if found to have 1,200 hours or more time in service during the inspection required by paragraph (a)(1), with an airworthy clutch assembly, P/N 28-13401-2, prior to further flight. For all remaining clutch assemblies, P/N 28-13401-1, replace with serviceable assemblies on or before accumulating 1,200 hours' total time in service.

Note.— The clutch service information published in Enstrom Service Directive Bulletin No. 0027 entitled "Overrunning Clutch Assembly," Enstrom Service Information Letter 0079A entitled "Overrunning Clutch Lubrication," and Service Information Letter 0038A entitled "Special Inspections for Sudden Stoppage—Main and Tail Rotor Blade Strikes" pertain to this AD.

(b) For Model F-28F, 280F, and 280FX series helicopters, accomplish the following:

(1) Within the next 25 hours' time in service after the effective date of this AD, conduct a one-time inspection to determine the part number of the main rotor transmission clutch assembly.

(2) If clutch assembly, P/N 28-13401-1, is found, replace it with an airworthy clutch assembly, P/N 28-13401-2, before further flight.

Note.— Clutch assembly, P/N 28-13401-1, is not authorized for use on Enstrom Model F-28F, 280F, or 280FX series helicopters.

(c) An alternate method of compliance with this AD, which provides an equivalent level of safety, may be used when approved by the Manager, FAA, Chicago Aircraft Certification Office, 2300 East Devon Avenue, Room 232, Des Plaines, Illinois 60018.

(d) In accordance with §§ 21.197 and 21.199, flight is permitted to a base where the maintenance required by this AD may be accomplished.

This amendment becomes effective February 24, 1989.

Issued in Fort Worth, Texas, on January 23, 1989.

L.B. Andriesen,

Manager, Rotorcraft Directorate, Aircraft Certification Service.

[FR Doc. 89-3034 Filed 2-9-89; 8:45 am]

BILLING CODE 4910-13-M

Coast Guard

33 CFR Part 100

[CGD 05-89-03]

Special Local Regulations for Marine Events; Norfolk/Portsmouth Harbor, Elizabeth River, VA

AGENCY: Coast Guard, DOT.

ACTION: Final rule; corrections.

SUMMARY: This document amends the special local regulations to correct a previously published document. The final rule document CGD 05-87-27, beginning on page 19726 in the issue of Wednesday, May 27, 1987, contained the following mistake: on page 19726, in the first column, under § 100.501(a)(1) REGULATED AREA, the last five lines should have read "Elizabeth River between Berkley at latitude 36°50'21.5" North, longitude 76°17'14.5" West, and Norfolk at latitude 36°50'35.0" North, longitude 76°17'10.0" West".

EFFECTIVE DATE: February 10, 1989.

FOR FURTHER INFORMATION CONTACT: Bruce Novak, (202) 267-1477.

SUPPLEMENTARY INFORMATION:

List of Subjects in 33 CFR Part 100

Marine safety.

Consequently, 33 CFR Part 100 is amended as follows:

PART 100—[AMENDED]

1. The authority citation for Part 100 continues to read as follows:

Authority: 33 U.S.C. 1233; 49 CFR 1.46 and 33 CFR 100.35.

§ 100.50 [Amended]

2. At the end of § 100.501(a)(1) Regulated Area, the words following "Eastern Branch of the Elizabeth" are revised to read "River between Berkley at latitude 36°50'21.5" North, longitude 76°17'14.5" West, and Norfolk at latitude 36°50'35.0" North, longitude 76°17'10.0" West".

A.D. Breed,

Rear Admiral, U.S. Coast Guard Commander, Fifth Coast Guard District.

[FR Doc. 89-3030 Filed 2-9-89; 8:45 am]

BILLING CODE 4910-14-M

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 180

[PP 8F3684/R1007; FRL 3518-4]

Pesticide Tolerance for Daminozide

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This document extends the tolerance of 20 parts per million (ppm) for residues of the plant growth regulator daminozide (butanedioic acid mono (2,2-dimethylhydrazide)) in or on the raw agricultural commodity apples until July 31, 1990. This extension will allow EPA adequate time to proceed toward cancellation of daminozide through the Special Review process. The July 31, 1990, time frame allows time for receipt and evaluation of studies being conducted by the Uniroyal Chemical Co., Inc., and completion of EPA's risk assessment of daminozide and unsymmetrical dimethylhydrazine (also known as UDMH and 1,1-dimethylhydrazine), a metabolite and breakdown product of daminozide, before the Special Review process is completed.

DATES: This rule is effective on January 31, 1989. Written objections must be filed by March 2, 1989.

ADDRESS: Written objections, identified by the document control number (PP 8F3684/R1007) may be submitted to the Hearing Clerk (A-110), Environmental Protection Agency, Room M-3708, 401 M Street SW., Washington, DC 20460.

FOR FURTHER INFORMATION CONTACT:

By mail: Robert J. Taylor, Product Manager (PM) 25, Registration Division (TS-767C), Office of Pesticide Programs, Environmental Protection Agency, 401 M Street SW., Washington, DC 20460

Office location and telephone number: Room 245, Crystal Mall #2, 1921 Jefferson Davis Highway, Arlington, VA 22202, (703)-557-1800.

SUPPLEMENTARY INFORMATION: In the Federal Register of April 16, 1986 (51 FR 12889), EPA proposed to reduce the tolerance, on an interim basis, in 40 CFR 180.246 for residues of daminozide in or on the raw agricultural commodity apples from 30 ppm to 20 ppm. An expiration date of July 31, 1987, was proposed for the reduced tolerance. Subsequently, the Agency reduced the tolerance in 40 CFR 180.246 in a Federal Register document of January 16, 1987 (52 FR 1909). The modified tolerance was set to expire on July 31, 1987, unless

extended. The sole registrant of products containing daminozide, Uniroyal Chemical Co., Inc., 74 Amity Rd., Bethany, CT 06525, submitted pesticide petition (PP) 7F3535 proposing an extension of the tolerance for residues of the plant growth regulator daminozide in or on the raw agricultural commodity apples at 20 ppm. EPA issued a notice, published in the *Federal Register* of June 17, 1987 (52 FR 23077), announcing receipt of this petition. The petition was submitted under section 408(d)(1) and 408(m) of the Federal Food, Drug, and Cosmetic Act (FFDCA). Following Agency review of this petition, a final rule was published in the *Federal Register* of July 29, 1987 (52 FR 28256), continuing the tolerance of 20 ppm for residues of daminozide in or on apples through January 31, 1989. The Agency imposed expiration dates for the apple tolerance because it was hoped that as data were received, a regulatory decision could be made prior to the completion of the long-term oncogenicity studies. On September 8, 1988, Uniroyal Chemical Company submitted PP 8F3684 proposing an extension of the tolerance for residues of daminozide in or on apples at 20 ppm. EPA issued a notice, published in the *Federal Register* of October 20, 1988 (53 FR 41238) announcing submission of this petition.

There were no comments received in response to the notice of filing.

The potential oncogenic risk of daminozide and UDMH has for some time been under evaluation by the Agency. As previously discussed in greater detail in *Federal Register* notices of January 16, 1987 (52 FR 1909) and July

29, 1987 (52 FR 28256), certain oncogenicity studies indicate that daminozide and its impurity and hydrolysis product, UDMH, cause an increased incidence of malignant and benign tumors in laboratory animals under test conditions. However, these studies had certain flaws in test methodology and documentation. As a result of these flaws, EPA eventually concluded that these studies could not serve as a basis for regulatory action against daminozide. (See 52 FR 28256; July 29, 1987.) Extensive data requirements were imposed on Uniroyal Chemical Company under section 3(c)(2)(B) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). These data requirements included: Oncogenicity studies with daminozide and unsymmetrical dimethyl hydrazine (UDMH), mutagenicity data, plant and animal metabolism studies, livestock feeding data, crop field trials, degradation in food data, storage stability information, market basket surveys, and analytical methods. The majority of these required studies have been received and have been reviewed. Results of crop field trials, analytical methods, and a market basket survey are discussed in the *Federal Register* of July 29, 1987 (52 FR 28256), along with additional background information on the regulatory interaction between the Agency and the FIFRA Scientific Advisory Panel (SAP) on daminozide.

Evaluation of residue chemistry data on UDMH and daminozide indicates that the Agency currently has sufficient data to perform an adequate dietary exposure analysis for a risk assessment.

EPA currently has residue data from crop field trials for cherries, nectarines, peaches, pears, and tomatoes; market basket survey data for apples, cherry filling peanuts, peanut butter, grape juice, baby and adult apple juice, and sauce; and feeding studies for meat, milk, and eggs. However, the Agency is still seeking additional information on the degradation of daminozide into UDMH in apple juice and sauce since previously submitted degradation studies report conflicting results. An additional degradation study, along with additional information on storage stability and plant and animal metabolism, will be submitted in 1989.

Oncogenicity studies with daminozide in the rat and mouse were submitted on August 31, 1988. A preliminary review of the rat (Fischer 344) study shows it to be negative for oncogenicity. Treated animals showed no statistically significant increase in tumors by either the Cochran Armitage trend analysis (a statistical recognition of a positive increase in tumors with increasing dose) or the Fisher's exact test (statistical comparison of two groups, also preferred to as pairwise comparison).

Preliminary review of the daminozide mouse (CD-1) study indicates that there is a statistically significant increase in hemangiosarcomas/hemangiomas (malignant and benign blood vessel tumors, respectively) with increasing dose (Cochran Armitage trend test) but not by pairwise comparison. The incidence of these tumors is summarized in the following table.

DAMINOZIDE MOUSE STUDY INCIDENCE OF BLOOD VESSEL TUMORS

	Dosage levels (ppm)				
	0	300	3,000	6,000	10,000
Males:					
Hemangiomas.....	1/2/50(4)	0/50(0)	2/50(4)	1/50(2)	2/48(4)
Hemangiosarcomas.....	4/50(8)	1/50(2)	1/50(2)	2/50(4)	8/48(17)
Combined incidence.....	6/50(12)	1/50(2)	3/50(6)	3/50(6)	10/48(21)
p=0.01 by the Cochran Armitage Test					
Females:					
Hemangiomas.....	2/46(4)	0/49(0)	1/49(2)	1/47(2)	1/50(2)
Hemangiosarcomas.....	2/46(4)	1/49(2)	1/49(2)	0/47(0)	6/50(12)
Combined incidence.....	4/46(9)	1/49(2)	2/49(4)	1/47(2)	7/50(14)
p=0.048 by the Cochran Armitage Test					

¹ The number in parentheses indicates the percentage incidence.

The increase in hemangiosarcomas/hemangiomas at the high dose in male and female mice is considered to be related to treatment with daminozide for the following reasons: (1) Tumors at the

high dose are nearly twice those of the concurrent controls. (2) The incidence of hemangiosarcomas at the high dose is outside of the historical control range for this tumor type in this strain of

mouse. The historical control range for hemangiosarcomas is 0 to 2.0 percent (mean 0.5 percent) for males and 0 percent for females in four feeding studies performed at the same

laboratory as the daminozide study. Hemangiosarcomas would be considered uncommon tumors (<1.0 percent) based on these ranges in the CD-1 mouse. (3) The incidence of hemangiosarcomas in the control groups is also outside the historical control range for this tumor type. An explanation for this is not readily apparent, but raises a question about the adequacy of the control groups, especially for male mice since in the two lowest dosage groups the incidence was within the historical control range. Since this is an uncommon tumor, the Agency has required Uniroyal Chemical Company to submit the pathology slides from both the daminozide and UDMH studies for further review. (4) Hemangiosarcomas/hemangiomas are the same tumor types seen in the ongoing oncogenicity studies on UDMH. Low levels of UDMH present either as a contaminant of the daminozide being tested or present as the result of metabolism or daminozide to UDMH in the test animals could be contributing to the formation of these tumors in the daminozide study.

In addition to oncogenicity studies with daminozide, 2-year drinking water oncogenicity studies in the rat (Fischer 344) and mouse (CD-1) using UDMH have been required and are in progress.

A 12-month interim sacrifice report of 20 animals per sex per dose level on the rat study has been submitted to the Agency. This study provides exposures to rats of up to 100 ppm UDMH in drinking water. A preliminary review of this report indicates that no tumors related to UDMH exposure were found after 1 year of treatment.

The CD-1 mouse is being tested in two studies at several dosage levels. In one study, the "low dose" study, UDMH is being administered at 0, 1, 5, and 10 ppm in male mice and 0, 1, 5, and 20 ppm in female mice. This study began in mid-January 1987, and the terminal sacrifice was scheduled for mid-January 1989. The 1-year "low dose" study interim sacrifice data indicate that there is no numerical increase in any tumor type in any of the treatment groups. A draft pathology report is due in April 1989, and a final report is due in July 1989.

In a second CD-1 mouse "high dose" study, UDMH is being administered at 0, 40, and 80 ppm to both male and female mice. The study began in mid-May 1987, and the terminal sacrifice is scheduled for mid-May 1989. A draft pathology report is due in September 1989, and the final study report is due January 1990. The 1-year interim sacrifice data indicate that there is a statistically significant increase in hemangiosarcomas/hemangiomas at the

high dose by pair-wise comparison and by trend analysis (Cochran-Armitage test) for both males and females. The Agency notes that only one tumor was found in either sex at the 40-ppm dosage level following 1 year of exposure. Since the tumors were found early in the study, i.e., at 1 year, the Agency considers it likely that further tumors at the 40-ppm level (and possibly at lower doses) could be found at termination of the study at the end of 2 years.

The data on the incidence of hemangiosarcomas/hemangiomas are summarized in the following table along with data on lung tumors seen in this same study.

UDMH "HIGH DOSE" MOUSE STUDY INCIDENCE OF BLOOD VESSEL AND LUNG TUMORS

Tumor type	Dosage level (ppm)		
	0	40	80
Males			
Blood vessel:			
Hemangioma	* 0/45(0)	1/45(2)	2/53(4)
Hemangiosarcoma	0/45(0)	0/45(0)	9/53(18)
Combined	* 0/45(0)	1/45(2)	* 11/53(22)
Lung:			
Alveolar/bronchiolar:			
Adenomas	6/45(13)	11/45(24)	22/53(41)
Adenocarcinoma	0/45(0)	0/45(0)	1/53(2)
Combined	* 6/45(13)	11/45(24)	* 23/53(43)
Females			
Blood vessel:			
Hemangioma	0/43(0)	1/47(2)	2/51(4)
Hemangiosarcoma	0/43(0)	0/47(0)	6/51(12)
Combined	* 0/43(0)	1/47(2)	* 8/51(16)
Lung:			
Alveolar/bronchiolar:			
Adenomas	4/44(9)	13/47(30)	19/51(37)
Adenocarcinoma	0/44(0)	1/47(2)	0/51(0)
Combined	* 4/44(9)	* 14/47(32)	* 19/51(37)

* The number in parentheses indicates the percentage incidence.

¹ p < 0.05.

² p < 0.01.

³ p < 0.001.

NOTE.—Significance of trend denoted at control group (Cochran Armitage Test). Significance of pair-wise comparison with control is denoted at dose level.

In addition to the hemangiosarcomas/hemangiomas, benign lung tumors were seen in the mouse (see table above) following treatment with UDMH for 1 year. New mutagenicity studies using UDMH have been submitted to the Agency. These studies include an Ames Salmonella assay for point mutations, a chromosomal aberration assay using Chinese hamster ovary cells, a forward gene mutation assay in Chinese hamster

ovary cells, and an unscheduled DNA synthetase assay in primary rat hepatocytes. All four of these studies were found to be acceptable assays and to be equivocal to negative for mutagenicity.

Based on the incidences of hemangiosarcomas/hemangiomas seen at 80 ppm in the UDMH mouse study at 1 year, the Agency has calculated a cancer potency factor (Q^*) of 0.88 milligrams/kilogram/day⁻¹. In addition, a Q^* of 2.9 mg/kg/day⁻¹ was calculated based on the incidence of lung tumors seen at the interim sacrifice in this same study. Since the lung tumors were of a nonmalignant nature and not yet shown to be outside the normally high incidence of lung tumors found in this strain of mouse after 2 years, the Q^* for malignant vascular tumors was used for risk characterization. The model used for calculating the Q^* for both data sets was the multistage model using the Crump Global 86 program. This model fits both data sets very well.

The Agency has used data from crop field trials and several market basket surveys as well as tolerance level values for milk intake to estimate an exposure and risk characterization for UDMH.

Based upon this information, the Agency has preliminarily estimated that exposure to individuals in the U.S. population is 0.000051 mg/kg/day of UDMH (mean exposure). The lifetime risk to human beings over a 70 year period has been calculated to be 4.5×10^{-5} . This results in an individual risk 9.6×10^{-7} over a 1.5-year period, the length of the tolerance extension. However, exposure to UDMH is not constant over the 70 year lifespan. Because consumption patterns vary from infancy to adulthood and because infants consume more per unit body weight than adults, nonnursing infants (children under one year of age) have a greater exposure during that year than do adults. This exposure has been estimated to be 0.00048 mg/kg/day (mean exposure). Therefore, the Agency has also estimated the risk to the nonnursing infant for 1.5 years. It is calculated to be 9×10^{-6} . The risk to nonnursing infants was calculated by first determining estimated exposure for the duration of the tolerance extension period, 1.5 years, and then multiplying the exposure value by the cancer potency factor, 0.88 mg/kg/day⁻¹. Thus, to determine risk, the Agency divided the daily exposure (0.00048 mg/kg/day) by 70 (the Agency's usual assumed life span for cancer risk assessment), multiplied by 1.5 and then multiplied the resulting exposure value for nonnursing infants by the cancer potency factor. It

should be noted that the resulting risk may be overstated because the nonnursing infant daily exposure estimates are for 1 year, not 1.5 years. As children grow, their absolute consumption and consumption per unit body weight of apple products decreases thereby lowering UDMH exposure. This trend is supported by mean consumption estimates from the Agency's Tolerance Assessment System food consumption data base. The general population risk (9.6×10^{-7}) was calculated using the same procedure and an estimated exposure value of 0.000051 mg/kg/day.

These risk estimates are the best indicator of oncogenic risk available at this time. Strengths of these risk estimates are: (1) Hemangiosarcomas are uncommon malignant tumor and have a low background rate in the strain of mouse used in the UDMH and daminozide studies; (2) hemangiosarcomas are the same tumor type seen in earlier UDMH studies that had flaws in test methodology and documentation; (3) it is very likely that a dose-response relationship will result for the occurrence of hemangiosarcomas/hemangiomas after termination of the UDMH mouse study at 2 years; (4) items (1), (2), and (3) of this paragraph support using the potency factor calculated using the blood vessel tumor data instead of the lung tumor data; and (5) residue data are primarily actual residue data and not worst-case assumptions based on tolerances.

However, there are also limitations to the Agency's approach for risk estimation. These limitations are as follows: (1) Since the final results of these studies are not yet available, the actual tumor response over a lifetime is not known; (2) although biological and statistical trends were noted, tests at 10,000 ppm for two years with the parent compound were statistically negative by pairwise comparison for cancer response; (3) the cancer response in the current UDMH data is seen only in one species at 40 and 80 ppm (40 ppm, or approximately 11.5 mg/kg/day, 80 ppm, or approximately 23 mg/kg/day); (4) mutagenicity data for UDMH are equivocal to negative on most of the test animals reported on in the interim sacrifice report died "in study" rather than at sacrifice indicating an early occurrence of tumors from exposure to UDMH; (5) mice in the "high dose" study are dying early and it is only at the highest dose of this study, 80 ppm UDMH, that a statistically significant biological response has been seen. The Agency believes that the death of these mice is due to the tumors, but it may be

argued that the maximum tolerated dose has been exceeded, causing excessive toxicity and thereby compromising the outcome of the study. The final results from the "low dose" study will indicate whether tumors are occurring at lower dosage levels as well, and may enable the Agency to determine if excessive toxicity is a limiting factor in the interpretations of tumor data. The Agency believes that these questions will be resolved when the final reports of the low dose and high dose studies are received, which is July 1989 and January 1990 respectively.

It is the Agency's policy to coordinate its actions regarding the revocation of tolerances for pesticide chemicals under the FFDCA with its actions regarding the cancellation of corresponding registrations of pesticides under FIFRA. A Statement of Policy was published by EPA in 1982, on this subject (47 FR 42956; Sept. 29, 1982) which reflects the joint understanding of the Food and Drug Administration, the U.S. Department of Agriculture, and EPA that EPA ordinarily will not revoke a tolerance until the corresponding registration(s) have been cancelled, nor until the end of any period provided by the final cancellation order for use of existing stocks of the pesticide (47 FR 42958; Sept. 29, 1982). That document also states that time EPA will issue a notice of proposed rulemaking to revoke a tolerance at the EPA issues a notice of intent to cancel a corresponding registration so that a final rule revoking a tolerance, if appropriate, can be issued at the time the associated registrations are cancelled (or shortly thereafter).

The underlying basis of the 1982 policy statement is that a food producer ordinarily should be able to assume correctly that using a pesticide on a crop in accordance with an EPA-approved FIFRA registration will not result in the seizure of the crop as failing to conform with a tolerance regulation issued by EPA under FFDCA. EPA continues to believe that this policy is sound.

As already noted the data available at this time have certain limitations. Review of the pathology studies from both the daminozide and UDMH studies, and of the final reports of the low and high dose UDMH studies should resolve some of the uncertainties associated with the evaluation and interpretation of the data available now.

Despite these limitations, the Agency believes that the lifetime risks to the U.S. population estimated from the available data (4.5×10^{-6}) are of sufficient concern that it should move as quickly as possible toward cancellation of daminozide through the Special

Review process. Accordingly, the Agency intends to issue a Preliminary Determination proposing cancellation this spring.

The final reports from the low and high dose UDMH studies will be available and can be reflected in the Agency's Final Determination. The Final Determination, likely to be issued in the spring of 1990, will be issued before expiration of the tolerance on July 31, 1990. As part of its Special Review action, EPA also intends to propose revocation of daminozide tolerances on the remaining crops beside this apple tolerance.

Based on currently available data and the incremental individual risk estimate as a result of the tolerance extension, EPA concludes that a tolerance level of 20 ppm for residues of daminozide in or on apples, during the period ending July 31, 1990, is adequate to protect the public health.

Any person adversely affected by this regulation extending the 20-ppm tolerance for residues of daminozide on apples may, within 30 days after publication of this regulation in the *Federal Register*, file written objections with the Hearing Clerk, at the address given above, and may as part of such objections request a hearing on factual issues associated with such objections. Objections should specify the provisions of the regulation deemed objectionable and the ground for the objections. If a hearing is requested, the request must state the factual issues to be addressed in the hearing.

In the event that objections or requests for a hearing are filed, this tolerance rule will remain effective until issuance of any order resulting from such objections or requests. (Section 408(d)(4), FFDCA.)

Executive Order 12291

Under Executive Order 12291, the Agency must determine whether a regulatory action is "major" and therefore subject to the requirements of a Regulatory Impact Analysis. The Agency has determined that this regulatory action is not a major regulatory action, i.e., it will not have an annual effect on the economy of at least \$100 million, will not cause a major increase in prices, and will not have a significant adverse effect on competition or the ability of U.S. enterprises to compete with foreign enterprises.

The Office of Management and Budget has exempted this rule from the requirements of section 3 of Executive Order 12291.

Regulatory Flexibility Act

This rule has been reviewed under the Regulatory Flexibility Act of 1980 (Pub. L. 96-354, 94 Stat. 1164, 5 U.S.C. 601 *et seq.*), and it has been determined that it will not have a significant economic impact on a substantial number of small businesses, small governments, or small organizations.

Accordingly, it is certified that this regulatory action does not require a separate regulatory flexibility analysis under the Regulatory Flexibility Act.

List of Subjects in 40 CFR Part 180

Administrative practice and procedure, Agricultural commodities, Pesticides and pests, Reporting and recordkeeping requirements.

Dated: January 31, 1989.

John A. Moore,

Acting Administrator, Environmental Protection Agency.

Therefore, 40 CFR Part 180 is amended as follows:

PART 180—[AMENDED]

1. The authority citation for Part 180 continues to read as follows:

Authority: 21 U.S.C. 346a.

2. Section 180.246(b) is amended by revising the entry for apples in the table therein, to read as follows:

§ 180.246 Daminozide; tolerance for residues.

* * * * *

(b) * * *

Commodities	Parts per million	Expiration date
Apples.....	20.0	July 31, 1990.

[FR Doc. 89-3211 Filed 2-8-89; 8:45 am]

BILLING CODE 6560-50-M

40 CFR Part 271

[FRL-3518-1]

Alabama; Schedule of Compliance for Modification of Hazardous Waste Program

AGENCY: Environmental Protection Agency.

ACTION: Notice of Alabama's compliance schedule to adopt program modifications.

SUMMARY: On September 22, 1986 EPA promulgated amendments to the deadlines for State program modifications, and published requirements for States to be placed on

a compliance schedule to adopt the necessary program modifications. EPA is today publishing a compliance schedule for Alabama to modify its program in accordance with § 271.21(g) to adopt the Federal program modifications.

FOR FURTHER INFORMATION CONTACT: Otis Johnson Jr., Chief, Waste Planning Section, RCRA Branch, Waste Management Division, U.S. Environmental Protection Agency, 345 Courtland Street NE., Atlanta, Georgia 30365, Phone: 404/347-0076.

SUPPLEMENTARY INFORMATION:

A. Background

Final authorization to implement the Federal hazardous waste program within the State is granted by EPA if the Agency finds that the State program (1) is "equivalent" to the Federal program, (2) is "consistent" with the Federal program and other State programs, and (3) provides for adequate enforcement (Section 3006(b), 42 U.S.C. 6226(b)). EPA regulations for final authorization appear at 40 CFR 271.1-271.24. In order to retain authorization, a State must revise its program to adopt new Federal requirements by the cluster deadlines and procedures specified in 40 CFR 271.21. See 51 FR 33712, September 22, 1986 for a complete discussion of these procedures and deadlines.

B. Alabama

Alabama received final authorization of its hazardous waste program on December 23, 1987. (52 FR 46466, December 8, 1987). Today EPA is publishing a compliance schedule for Alabama to obtain program revisions for the following Federal program requirements contained in non-HSWA Cluster III:

Radioactive Mixed Waste
Liability Coverage—Corporate Guarantee
Hazardous Waste Tank Systems
Correction to Listing of Commercial Chemical Products and Appendix VIII Constituents
Hazardous Waste Tank Systems; Correction
Listing of Spent Pickle Liquor; Correction
Revised Manual SW-846
Closure/Post-closure Care for Interim Status Surface Impoundments
Definition of Solid Waste; Technical Corrections
Amendments to Part B—Information Requirements for Land Disposal Facilities

The State has agreed to obtain the needed program revisions according to the following schedule:

1. Submit Notice & Proposed Rules (July 15, 1988 through September 1, 1988) to Legislative Reference Service and Legislative Oversight Committee—April 19, 1989
2. Publish Notice in Four Regional Newspapers—April 23, 1989
3. Publish Notice in Alabama Administrative Monthly—April 28, 1989
4. Public Hearing—June 12, 1989
5. Close Comment Period—June 21, 1989
6. Prepare Reconciliation Statement and Rule Revisions—June 30, 1989
7. Board of Health—July 19, 1989
8. Commission Adoption—August 24, 1989
9. File Certified Copy of Rules with ADEM Secretary—August 31, 1989
10. File Certified Copy of Rules with Legislative Reference Service—September 8, 1989
11. Rule Effective Date—October 23, 1989.

Alabama expects to submit a final application to EPA for authorization of the above mentioned program revisions by December 31, 1989.

Authority: This notice is issued under the authority of sections 2002(a), 3006, and 7004(b) of the Solid Waste Disposal Act, as amended by the RCRA of 1976, 42 U.S.C. 6912(a), 6926, and 6974(B).

Date: January 24, 1989.

Lee A. DeHihns, III,

Acting Regional Administrator.

[FR Doc. 89-3189 Filed 2-9-89; 8:45 am]

BILLING CODE 6560-50-M

DEPARTMENT OF TRANSPORTATION

Coast Guard

46 CFR Parts 25, 58, 147 and 184

[CGD 83-013]

RIN 2115-AB35

Carriage and Use of Liquefied and Non-liquefied Flammable Gas as Cooking Fuels on Vessels Carrying Passengers for Hire

AGENCY: Coast Guard, DOT.

ACTION: Interim final rule.

SUMMARY: Coast Guard regulations currently prohibit the carriage and use of liquefied and non-liquefied flammable gas as ships' stores on vessels carrying passengers for hire. Because a portion of the small and uninspected passenger vessel industries have expressed a desire to use these gases as cooking fuels, and the systems using these fuels have improved over the years since this prohibition was first put in place, the Coast Guard has reconsidered the prohibition. This rule removes the

prohibition as it pertains to cooking appliances. Further, it promulgates standards governing the design, installation and testing of cooking appliances using these fuels on small and uninspected passenger vessels and the installation of wood and coal burning stoves.

DATES: This rulemaking is effective March 13, 1989, except for Subpart 25.45 which will be effective August 9, 1989. Comments addressing § 25.45-1(d) must be received by March 27, 1989. The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of March 13, 1989, except for Subpart 25.45 which is approved as of August 9, 1989.

ADDRESSES: Comments should be submitted in writing to the Executive Secretary, Marine Safety Council (G-LRA-2/3600) (CGD 83-013), U.S. Coast Guard, 2100 Second Street, SW., Washington DC 20593-0001. The comments and materials referenced in this notice will be available for examination and copying between the hours of 8 a.m. and 3 p.m., Monday through Friday, except federal holidays, at the Marine Safety Council, Room 3600, U.S. Coast Guard Headquarters, 2100 Second Street, SW., Washington, DC. Comments may also be delivered to this address.

FOR FURTHER INFORMATION CONTACT: LCDR Mark G. VanHaverbeke, Project Manager, (202) 267-1181.

SUPPLEMENTARY INFORMATION: In 1982 the Coast Guard received numerous requests from owners and operators of small and uninspected passenger vessels to reevaluate the prohibition of liquefied petroleum gas (LPG) and compressed natural gas (CNG) as cooking fuels on their vessels. As a result of its reevaluation, the Coast Guard published a Notice of Proposed Rulemaking (NPRM) in the *Federal Register* on March 22, 1984 (49 FR 10685). This NPRM proposed to remove the prohibition of LPG and CNG as fuels for cooking appliances on vessels carrying passengers for hire, except ferries. This proposal also promulgated standards governing the design, installation, and testing of cooking appliances using LPG and CNG, incorporating by reference the American Boat and Yacht Council, Inc. (ABYC) and National Fire Protection Association (NFPA) standards for these systems.

As a result of the comments received, substantive changes were made to the original proposal. The most significant change was the acceptance of the

Standard 302, Pleasure and Commercial Motor Craft (1984 Edition), as an alternative to the ABYC standards. On February 6, 1986, a Supplemental Notice of Proposed Rulemaking (SNPRM) was published in the *Federal Register* (51 FR 4620) which reflected this change. The comment period for the SNPRM ended on May 7, 1986.

NFPA 302 also provides guidance for the installation of heating and cooking systems using wood or coal. This rulemaking provides for the use of these fuels on uninspected vessels carrying passengers, and the Coast Guard has determined that adopting the appropriate guidance in NFPA 302 will help to minimize the fire risks associated with these systems. Therefore, the Coast Guard has included a provision in § 25.45-1(d) to require that these systems, where installed after August 9, 1989, be in accordance with NFPA 302. Since this provision was not included in the SNPRM, this document is being published as an Interim Final Rule to provide for a comment period pertaining to § 25.45-1(d). Following the comment period a Final Rule will be published.

Discussion of Comments

A total of 41 comment letters were received in response to the SNPRM, and they are discussed below. Since no issues were raised which had not been previously addressed in either the initial NPRM or SNPRM, only minor changes to the proposal are being made. The final rule includes the Office of Management and Budget (OMB) control number for the information collection requirements and a few minor administrative changes in the authority citations for the affected parts.

Only one comment opposed allowing the use of LPG and CNG on vessels carrying passengers for hire. One reason cited was that these gases are not always effectively odorized, therefore a leak can go undetected. Another reason was that, although CNG is lighter than air at ambient temperature, a leak could have a cooling effect on the gas causing it to become heavier than air. This would result in the gas settling within the vessel rather than rising. The comment espoused the attributes of liquid fuels including the facts that they are visible, that combustible liquids are safer than flammable gases, that some flammable liquids can be easily diluted with water when spilled and thus become noncombustible, and that liquid fuel in a punctured tank can only leak down to the level of the hole while a compressed gas will continue to leak until the supply is exhausted.

The fact that combustible liquids are safer than flammable ones and that flammable liquids are safer than flammable gases cannot be denied. It also cannot be denied that any fuel used for cooking presents some degree of risk. What is important is that the degree of risk of any fuel be reduced to an acceptable level. The Coast Guard's position is that a flammable gas cooking installation meeting the requirements of this rulemaking will reduce the hazards of these gases to an acceptable level.

The scenario of leaking CNG cooling itself sufficiently to become heavier than air could only occur if the leak were either at the bottle or between the bottle and the regulator. This is because the pressure of the gas downstream of the regulator is too low to allow a sufficient cooling effect to occur. Since these regulations require the bottle and regulator to be contained in a locker vented to the atmosphere, it is not foreseeable that a significant amount of leaking CNG could enter the vessel, even if it cooled and was temporarily denser than air.

The only known odorization problem is with LPG. The reasons for this are the fading of the odor over time, possibly caused by oxidation of the odorant; the settling of LPG because it is heavier than air, thus removing it from nose level; and the undetectability of ethyl mercaptan, the odorant for 95% of the LPG sold for residential use, by approximately 10% of the population. Both the LPG industry and the Consumer Product Safety Commission are aware of these shortcomings and are taking steps to remedy them. However, the Coast Guard does not consider these problems sufficient to disallow the use of LPG on vessels.

One comment suggested allowing CNG and LPG only on inspected vessels carrying passengers for hire. One reason cited was the large number of uninspected vessels carrying passengers for hire which are never boarded for an examination to determine their compliance with applicable regulations. Other reasons were the technical complexity of this rulemaking and the inexperience of Coast Guard boarding officers with these systems, which would result in inadequate inspections of these installations.

The Coast Guard considers these reasons unfounded. LPG and CNG cooking systems are permitted on recreational vessels, and there is no evidence to suggest that they present an unacceptable safety problem. Casualty statistics for recreational vessels do not indicate that LPG and CNG cooking appliances account for a

disproportionate number of vessel fires and explosions. Since recreational vessels and uninspected passenger vessels are boarded and examined similarly, there is no reason to believe that the uninspected passenger vessels will incur casualty losses in excess of those incurred by recreational vessels resulting from the use of flammable gases as cooking fuels. Therefore, this rulemaking does not prohibit the use of such fuels on uninspected passenger vessels.

Two comments suggested that a specially designed container for LPG bottle stowage should be allowed to be installed within enclosed spaces. As stated in both the NPRM and SNPRM, for safety reasons, LPG bottles must be stowed in a locker or housing that is not located inside the vessel. Such stowage will provide for the safe dispersal of the gas in the event of a leak from the bottle or its connections, even if the locker or housing is not properly closed or is opened while full of gas.

One comment pointed out that NFPA Standard 302 is specifically written to prevent fires and explosions and has been accepted by the American National Standards Institute (ANSI), while the ABYC standards are only intended as guides. As part of this rulemaking project, both the NFPA and ABYC standards for LPG and CNG cooking appliance installations were compared and found to be almost identical. All significant variances have been specifically addressed in this rulemaking and, where necessary, requirements in addition to the standards have been specified.

One comment stated that the requirements that were in addition to those of the NFPA standard were unnecessary. These requirements include the odorization of the flammable gas and that LPG cylinders be of the vapor withdrawal type. The comment went on to say that this latter requirement is technically covered by section 6-5.8.1 of NFPA 302. Further, the comment recommended that a flame failure switch for the range burners should be installed in addition to the one required for ovens by ABYC.

The specific requirement in this rulemaking for the odorization of LPG and CNG is considered valid. This is a significant issue, especially when one considers that LPG shipped by pipeline is not odorized because of end user requirements. Since gasses are available which are not odorized, the Coast Guard wants to ensure that any flammable gas used on a vessel carrying passengers for hire is odorized. Some means of vapor detection in the event of a leak is considered essential. Most people can

smell the odorants used for natural gas. Odorized gasses are readily available and the requirement that odorized gasses be used is less expensive than requiring a mechanical or electrical vapor detector system. Therefore, this requirement has been retained.

Regarding the flame failure switch, it is interesting to note that NFPA 302 does not require one for either ovens or range burners while ABYC requires it for ovens. The Coast Guard considers a flame failure switch to be essential for ovens since flame failure in an oven is not readily detectable. The Coast Guard is not extending the requirement to include range burners because the failure of the range burner flame is more easily detectable visually and by the odor of gas.

The requirement for LPG cylinders to be of the vapor withdrawal type is considered significant because it reduces the chance of a flareup occurring at a burner due to liquid LPG entering the supply line. NFPA 302 does not specifically require that LPG cylinders be of the vapor withdrawal type, as ABYC A-1 does. Therefore this requirement has been retained.

Two comments stated that referencing two industry standards plus imposing additional requirements is too confusing to the boating public. They said it would result in improper installations on uninspected passenger vessels and recreational vessels. Further, they said obtaining copies of the regulations and either the NFPA or ABYC standards will be too bothersome and boat owners consequently would not get them. They recommended that all the requirements contained in the ABYC and NFPA standards be written into the regulations, and that the regulations include step by step instructions on installing CNG and LPG systems on any boat.

Reducing the volume of regulations by incorporating existing industry standards is consistent with the Freedom of Information Act (5 U.S.C. 552) and 1 CFR Part 51. Since both the NFPA and ABYC standards are readily available to the public and these organizations' addresses are given within the regulations, it is not considered necessary to restate these standards in the regulations. Those most likely to be involved with installing cooking systems on vessels, such as boat manufacturers and boat repair yards, already have these standards, as they are used extensively in the fabrication and repair of boats.

Because of variances in the types and arrangements of vessels and owner's personal preferences, it would be impossible to include step-by-step

instructions for all of the possible installation arrangements that could be used for a cooking appliance. Therefore, none have been included with this final rule. As stated above, it is anticipated that most installations will be made by boat repair yards or manufacturers who have the technical expertise necessary to perform all work in a satisfactory manner. Neither the regulations, ABYC, nor NFPA standards are considered highly technical or confusing. However, any boat owner who wishes to personally install his own cooking appliance, but doesn't understand these requirements, should seek competent professional help.

Nineteen comments stated that CNG cooking systems have been installed on more than 15,000 boats in accordance with ABYC A-22 for over fifteen years without any accidents; therefore, the ABYC standard should be accepted without additional requirements. They said that the additional requirements impose a financial burden on these vessel owners without improving safety and result in these vessels not being in compliance with the regulations.

These regulations simply allow owners of vessels carrying passengers for hire to install CNG systems. It does not affect owners of recreational vessels who are presently the primary users of these systems. Thus, these regulations have no effect on existing installations on recreational vessels.

The Coast Guard does not have data to support or refute the degree of use or the claimed safety record of CNG cooking systems. However, the Coast Guard's position is that stowage of CNG cylinders anywhere within enclosed spaces, particularly on a vessel carrying passengers for hire, presents an unacceptable risk in the event of a leak at the cylinder, regulator, or associated fittings. Therefore, the additional requirement that the CNG cylinder and regulator be stowed in a vented housing located on the open deck or open cockpit has been retained.

Two comments stated that the NFPA committee that developed the 302 standard lacked expertise in the area of CNG. They also stated that two of the members of the committee have a conflict of interest, because they are involved with firms that deal in the commercial LPG market which competes directly with the CNG industry. The comments suggest that this bias resulted in similar requirements in NFPA 302 for both LPG and CNG. To offset this bias towards LPG, it was recommended that persons from the American Gas Association (AGA) and International

Conference of Building Officials (ICBO) be on the committee.

Although the membership of the committee included representatives from the LPG but not the CNG industry, the committee's expertise in the area of CNG, whether there is a conflict of interest, and any bias towards the use of LPG is not known by the Coast Guard. This is a moot point, however, because the Coast Guard would impose the same requirements regardless of what was developed by the NFPA 302 committee. This is borne out by the fact that the Coast Guard is imposing certain requirements in addition to those established by NFPA 302. The Coast Guard regulations are based on a careful analysis of the safety issues associated with LPG and CNG cooking installations. The final rule establishes the minimum level of safety necessary for cooking installations on vessels carrying passengers for hire.

One comment questioned the Coast Guard's concern about leaking CNG finding an ignition source before exiting the vessel. The comment suggested that on a typical 55 foot boat having an interior volume of 1600 cubic feet it is impossible to reach the lower explosive limit, even if the entire contents of a standard cylinder leaked out, since the gas rapidly diffuses.

The Coast Guard disagrees. Any gas leak from a cylinder would result in the potential for ignition of the gas. Even if only a partially filled cylinder were allowed to leak into the open atmosphere the gas could be ignited. While it is true that certain locations in the compartment will be above or below the explosive limits, at some distance from the cylinder the gas concentration will be within the explosive range.

One comment stated that increasing the pressure of the CNG supply by adjusting the regulator to overcome the pressure drop through a remote controlled valve would adversely affect the performance of the thermostats of stoves and prevent the fuel line from sealing itself if exposed to a fire.

The Coast Guard disagrees. As an example, if the stove is meant to function with CNG at a pressure of five inches of water, and a valve in the supply line results in a one inch pressure drop so that the pressure at the stove is only four inches of water, then the installer may adjust the regulator so that its discharge pressure is increased by one inch of water to raise the pressure of the gas at the stove to five inches. This would make the pressure at the stove the same as if no remote control valve was installed. The problem of overpressurizing the tubing so that it would no longer be self-sealing could be

eliminated by installing the remote shutdown valve next to the regulator. This would result in all gas supply tubing being subjected only to the pressure allowed by the regulator setting.

Six comments addressed the stowage of CNG in lockers. Three stated that requiring the lockers to be stowed above the waterline was subjective and arbitrary because leaking CNG will rise. Another comment said CNG should not have to be in lockers at all for this same reason. Two other comments stated that requiring CNG lockers to only open from the top and the cover to be gasketed to form a tight seal was inappropriate.

The Coast Guard agrees that the stowage of CNG raises different concerns than the stowage of LPG and has provided for different CNG stowage arrangements. Requiring CNG cylinders to be stowed in vented lockers which are vapor-tight to the hull or in lockers located on an open deck ensures that any leaking gas escapes in a controlled manner.

Three comments said that the statement in the SNPRM that the economic impact of this rulemaking was minimal and required no further economic evaluation was subjective and arbitrary. The reason cited was that CNG product manufacturers, distributors, and dealers, along with tens of thousands of CNG customers, will incur millions of dollars of expenses to bring their existing boats into compliance with these proposals without any increase in safety. An additional thirteen comments stated they had CNG cooking systems installed on their vessels in accordance with ABYC A-22, and it would cost them about \$1,000 each to change their installations to comply with this rulemaking, while the safety of their boats would be decreased because any leaking CNG would not be able to escape.

The concern about the economic impact reflected in the comments is unfounded. This regulation only applies to vessels carrying passengers for hire which are not presently allowed to have LPG or CNG cooking appliances. Thus, there are no existing authorized cooking systems to be modified on vessels subject to this final rule. The only individuals affected by this rulemaking are small and uninspected passenger vessel owners or operators who currently do not have a flammable gas cooking system installed and desire to install one and recreational vessel owners who have an installed gas cooking system and now desire to carry passengers for hire. In both cases, either installing a new cooking system or

modifying an existing installation is completely voluntary, and any expenses incurred are at the option of the owner. Therefore, there are no costs mandatorily imposed by this rulemaking.

The safety of the boats with CNG systems will not be diminished by modifying them to comply with this rulemaking. Since each CNG cylinder must be stowed in a vented locker, any leaking gas will escape through the vented locker to the atmosphere and not remain trapped in the vessel.

One comment said that the requirements in this rulemaking that are in addition to ABYC A-22 were hastily conceived. Two others said these requirements were biased towards the LPG industry as that industry will benefit financially from this final rule. The three comments recommended that the rulemaking be dropped until it can be reviewed by an impartial panel.

The Coast Guard's position is not biased towards the use of either fuel. It is anticipated that both the LPG and CNG industries will benefit financially by this rulemaking. Whether or not one will benefit more than the other is a matter of conjecture.

This rulemaking was not hastily conceived. During the past five years the Coast Guard has studied the problem, evaluated industry standards, developed needed safety requirements, published a Notice of Proposed Rulemaking and a Supplemental Notice of Proposed Rulemaking, and modified its proposal after analyzing 91 comment letters.

Five comments stated that it was understood that the Coast Guard was changing the regulatory requirements for CNG cylinder stowage aboard charter vessels. They felt that this would be a mistake, because it would discourage the use of CNG by increasing its installation costs. The extra cost would make it cost prohibitive for the majority of the boating public.

The requirements in addition to the current ABYC standard for CNG would be limited to requiring that the fuel tanks be stowed outside of the hull interior, segregated by a shut off valve which can be operated from a position adjacent to the cooking appliance, and prohibiting the use of pilot lights and glow plugs. These additional requirements were estimated to cost less than \$100 per installation, a nominal cost far outweighed by the increase in safety. Further, these requirements are limited in application to vessels carrying passengers for hire and would not have to be met by the general boating public.

One comment objected to the ABYC A-22 standard, because it allows the

very high pressure CNG cylinder to be stowed in accommodation spaces. This comment went on to say that most fiber reinforced plastic boats have fairly "tight" cabins, which would impede the flow of any leaking CNG to the atmosphere. This would result in the gas collecting at the overhead of a space and present an explosion hazard.

The Coast Guard agrees with this hypothesis, and this is one reason why the Coast Guard is imposing CNG cylinder stowage requirements in addition to ABYC A-22.

One comment suggested "grandfathering" vessels that already have CNG installations.

This is not considered necessary or desirable, because vessels carrying passengers are not currently allowed to have these installations. Consequently, there is no one to "grandfather". For safety reasons, a vessel equipped with a CNG installation not meeting this rulemaking and desiring to carry passengers for hire must comply with the regulation.

One boat builder stated that he would have to change his construction methods to meet the requirements for CNG installations and that the additional cost was not justified by any increase in safety.

The Coast Guard recognizes that some existing designs for CNG installations on vessels built for recreational use would not meet the requirements of this final rule, largely due to tank placement. The cost of adapting these designs to vessels carrying passengers for hire would be nominal, particularly if done prior to construction. All builders who outfit for CNG will face installation costs, regardless of their current design, and the Coast Guard's position is that these costs are reasonable and justified by the increased level of safety.

One comment said that the quantity of LPG allowed aboard a vessel should be limited to an amount that would not exceed the lower explosive limit (LEL) if all the LPG were discharged within the volume of the hull.

This idea appears fine on the surface, but it is an oversimplification. As previously stated in a similar comment concerning CNG, any leaking gas would not be evenly distributed throughout the hull's volume. Rather, there would be a graduated concentration of LPG from the source of the leak to the point of furthest spread of the LPG. This graduated concentration would span the limits from above the upper explosive limit (UEL) to below the LEL.

Somewhere along this gradient the concentration would be within the explosive limits and present a genuine hazard, regardless of the quantity of

LPG which may have been discharged. This recommendation has not been adopted in the final rule.

Two comments said that many boat operators carry excess amounts of LPG fuel, whereas this does not occur with CNG. The reason stated is that there is a gauge on CNG cylinders so a person knows exactly how much fuel is available, but LPG cylinders are not so equipped and people consequently carry extra amounts to ensure they have an adequate supply. The comments recommended that LPG cylinders be equipped with a gauge so that the amount of LPG in the cylinder could be determined.

Although a pressure gauge on a CNG cylinder will indicate how much gas remains, it will not work with LPG which is part liquid and part gas. As LPG is used, the liquid evaporates and forms more gas to replace the lost LPG vapors. The result is that the pressure does not change until the liquid supply is exhausted. Additionally, the amount of LPG can easily be determined by weighing the bottle. Therefore there is no need to require a gauge.

Knowing the amount of LPG or CNG remaining will not tell a person how much cooking can be done with that amount. This is because the amount used over time will depend on such things as the number of burners used and whether high or low heat is used. Therefore knowing the amount of fuel left is only of marginal use, and the recommendation has not been adopted.

Three comments stated that the implementation of this rulemaking would have disastrous consequences for boat owners. The reason given was that even though the regulations are not applicable to recreational vessels, insurance companies may impose the standards on recreational vessels. Additionally, they feared that the Coast Guard may impose these regulations on recreational vessels at some future date.

Whether the requirements contained in this rulemaking are applied to recreational vessels by insurance companies is a matter of speculation and beyond the Coast Guard's control. Since the NFPA and ABYC standards have been in place for some time and are used as the industry standards for recreational vessels, it would seem logical that they would continue to be used and the additional requirements imposed by this rulemaking would not be applied to them.

The Coast Guard has no intention, at this time, of applying these requirements to recreational vessels. However, if the Coast Guard decides to expand the applicability of the regulations to include recreational vessels, the

regulatory process required by the Administrative Procedure Act, 5 U.S.C. 553, must be followed. This includes giving the public the opportunity to comment on the proposal prior to it becoming a final rule.

One comment recommended that LPG stove installations be capable of containing leaking gas and venting it overboard above the waterline.

This is not concurred with, as such a requirement is not necessary or justifiable. As stated in the initial proposed rule, cooking appliances are normally attended when in use and any leak occurring at the appliance should be readily detected by the operator. The operator can activate the remote control valve that is required by this rulemaking and stop the flow of gas to the inside of the vessel. In the case of an unattended vessel, the warning placard, required by the regulation, states that the cylinder valve should be closed when the boat is unattended. This would help to reduce the possibility of any gas leaking at the stove.

One comment recommended that a mechanical leak detection system be installed on vessels using LPG, as this would eliminate the need for electrical power in order for the system to operate.

The installation of a leak detection system has not been adopted because it is not necessary. The Coast Guard agrees with the standards adopted by both the ABYC and NFPA. If gas cooking systems are installed and maintained in accordance with the requirements set forth in this rulemaking, then the installation of a leak detection system would not significantly increase the level of safety so that its cost could be justified.

Drafting Information

The principal persons involved in drafting this document are Lieutenant Commander Mark G. VanHaverbeke, Project Manager, Office of Marine Safety, Security, and Environmental Protection, and Lieutenant Commander Don M. Wrye, Project Attorney, Office of the Chief Counsel.

E.O. 12291 and DOT Regulatory Policies and Procedures

This rulemaking is considered to be non-major under Executive Order 12291 and nonsignificant under the DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). A final regulatory evaluation has been prepared and placed in the rulemaking docket. It may be inspected or copied at the Marine Safety Council, Room 3600, U.S. Coast Guard Headquarters, 2100 Second Street, SW., Washington, DC 20593—

0001, from 8 a.m. to 3 p.m. Monday through Friday. Copies may also be obtained by contacting the person listed under "FOR FURTHER INFORMATION CONTACT".

As explained in the final evaluation, these rules are deregulatory with the exception of the installation standard for wood and coal burning stoves. They serve to expand the fuel choices available to vessel owners for cooking and provide simple guidance for the installation of wood or coal burning stoves.

There are relatively minor differences between the cost of electric marine stoves and those with similar features that are fueled either by alcohol, LPG or CNG. Depending upon the individual features of an electric stove, its purchase price may range from less than \$100 to over \$400; typically, an equivalent alcohol stove would be priced \$10 to \$30 more, and an LPG or CNG stove priced \$15 to \$60 more. There would be little, if any, difference in installation costs. The differences in operating costs would be governed by the relative costs and availability of the fuels.

This interim final rule includes installation requirements for wood and coal burning stoves. The requirements are those of a generally accepted industry standard for boat construction and will help to minimize the fire risks associated with these systems. The cost of meeting this standard will be minimal because it consists largely of requirements to locate, insulate, or shield the stove and its smoke stack from combustible materials. The standard will only apply to new installations so that there will be no burden placed on owners of vessels with existing stoves and owners or builders considering new installations will have the opportunity to consider even the minimal installation cost in their economic decision.

Because the economic impact of this proposal is so minimal, we find that no further economic evaluation is necessary.

Environmental Impact

This rulemaking has been thoroughly reviewed by the Coast Guard and it has been determined to be categorically excluded from further environmental documentation in accordance with section 2.B.2.c and 2.B.2.1 of Commandant Instruction (COMDTINST) M16475.1B. A Categorical Exclusion Determination statement has been prepared and has been placed in the rulemaking docket.

Regulatory Flexibility Act

The Coast Guard certifies that this final rule will not have a significant economic impact on a substantial number of small entities. This proposal principally affects small and uninspected passenger vessels. This includes both Coast Guard inspected and uninspected vessels. Many of these are operated as small businesses. While it has not been possible to quantify the economic impact of this proposal, any cost of installing LPG or CNG cooking appliances would be voluntarily assumed by the vessel owner or operator. The final rule is permissive in nature and does not require the installation of systems using these fuels.

Paperwork Reduction Act

The collection of information requirements contained in this rule have been submitted to the Office of Management and Budget (OMB) for review under section 3504(h) of the Paperwork Reduction Act of 1980 (44 U.S.C. Chapter 35) and have been approved. The OMB Control Number assigned for §§ 25.45-2 and 184.05-1 is OMB #2115-0549.

Federalism

This action has been analyzed in accordance with the principles and criteria contained in Executive Order 12612, and it has been determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

List of Subjects

46 CFR Part 25

Fire prevention, Incorporation by reference, Marine safety.

46 CFR Part 58

Reporting and recordkeeping requirements, Vessels.

46 CFR Part 147

Arms and munitions, Hazardous materials transportation, Marine safety, Packaging and containers.

46 CFR Part 184

Communications equipment, Incorporation by reference, Marine safety, Navigation (water), Passenger vessels.

In consideration of the foregoing, the Coast Guard amends Chapter I of Title 46 of the Code of Federal Regulations as set forth below:

PART 25—[AMENDED]

1. The authority citation for Part 25 continues to read as follows:

Authority: 46 U.S.C. 3306, 4104, 4302; 49 CFR 1.46.

2. Subpart 25.01 is amended by adding new §§ 25.01-3 and 25.01-5 to read as follows:

Subpart 25.01—Application

§ 25.01-3 Incorporation by reference.

(a) Certain materials are incorporated by reference into this part with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a). To enforce any edition other than the one listed in paragraph (b) of this section, notice of change must be published in the Federal Register and the material made available to the public. All approved material is on file at the Office of the Federal Register, 1100 L Street NW., Washington, DC, and at the U.S. Coast Guard, Merchant Vessel Inspection and Documentation Division, (G-MVI), 2100 Second Street SW., Washington, DC 20593-0001, and is available from the sources indicated in paragraph (b) of this section.

(b) The materials approved for incorporation by reference in this part, and the sections affected are:

<i>American Boat and Yacht Council (ABYC)</i>	
P.O. Box 747, 405 Headquarters Dr., Suite 3,	
Millersville, MD 21108-0747	
A-1-78—Marine LPG-Liquefied	
Petroleum Gas Systems.....	25.01-3;
(December 15, 1978).....	25.45-2
A-22-78—Marine CNG-Compressed	
Natural Gas Systems.....	25.01-3;
(December 15, 1978).....	25.45-2
<i>National Fire Protection Association (NFPA)</i>	
60 Batterymarch Park, Quincy, MA 02260	
302-1984—Pleasure and Commercial	
Motor Craft.....	25.01-3;
Chapter 6. (1984).....	25.45-2

§ 25.01-5 OMB control numbers assigned pursuant to the Paperwork Reduction Act.

(a) *Purpose.* This section collects and displays the control numbers assigned to information collection and recordkeeping requirements in this subchapter by the Office of Management and Budget (OMB) pursuant to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.). The Coast Guard intends that this section comply with the requirements of 44 U.S.C. 3507(f), which requires that agencies display a current control number assigned by the Director of the OMB for each approved agency information collection requirement.

(b) *Display.*

46 CFR part or section where identified or described	Current OMB control No.
§ 25.45-2.....	2115.0549

Add. R+R

3. Subpart 25.45 is revised to read as follows:

Subpart 25.45—Cooking, Heating, and Lighting Systems

Sec.

25.45-1 Heating and lighting systems on vessels carrying passengers for hire.

25.45-2 Cooking systems on vessels carrying passengers for hire.

Subpart 25.45—Cooking, Heating, and Lighting Systems

§ 25.45-1 Heating and lighting systems on vessels carrying passengers for hire.

(a) No fuel may be used in any heating or lighting system on any vessel carrying passengers for hire without the approval of Commandant (G-MTH), except—

- (1) Alcohol, solid,
- (2) Alcohol, liquid, combustible,
- (3) Fuel oil, No. 1, No. 2, or No. 3,
- (4) Kerosene,
- (5) Wood or,
- (6) Coal.

(b) Heating and lighting systems using alcohol must meet the following requirements:

- (1) Containers of solidified alcohol must be properly secured to a fixed base.
- (2) Fluid alcohol burners, where wet priming is used, must have—
 - (i) A catch pan of not less than $\frac{3}{4}$ " depth secured inside the frame of the stove; or
 - (ii) The metal protection under the stove flanged up at least $\frac{3}{4}$ " to form a pan.
- (c) Heating and lighting systems using kerosene or fuel oil must meet the following requirements:
 - (1) Where wet priming is used, each system must have—
 - (i) A catch pan of not less than $\frac{3}{4}$ " depth secured inside the frame of the stove; or
 - (ii) The metal protection under the stove flanged up at least $\frac{3}{4}$ " to form a pan.
 - (2) Fuel tanks must be—
 - (i) Separated from the stove that they serve;
 - (ii) Mounted in a location open to the atmosphere or mounted inside a compartment that is vented to the atmosphere; and
 - (iii) Fitted with an outside fill and vent.
 - (d) Heating systems using wood or coal installed after August 9, 1989, shall be installed in accordance with the guidelines in Chapter 6 of NFPA 302.

(b) Heating and lighting systems using alcohol must meet the following requirements:

- (1) Containers of solidified alcohol must be properly secured to a fixed base.
- (2) Fluid alcohol burners, where wet priming is used, must have—
 - (i) A catch pan of not less than $\frac{3}{4}$ " depth secured inside the frame of the stove; or
 - (ii) The metal protection under the stove flanged up at least $\frac{3}{4}$ " to form a pan.
- (2) Fuel tanks must be—
 - (i) Separated from the stove that they serve;
 - (ii) Mounted in a location open to the atmosphere or mounted inside a compartment that is vented to the atmosphere; and
 - (iii) Fitted with an outside fill and vent.

(d) Heating systems using wood or coal installed after August 9, 1989, shall be installed in accordance with the guidelines in Chapter 6 of NFPA 302.

§ 25.45-2 Cooking systems on vessels carrying passengers for hire.

(a) No fuel may be used in any cooking system on any vessel carrying passengers for hire without the approval

of Commandant (G-MTH) except those listed in § 25.45-1, subject to the requirements stated therein, and liquefied petroleum gas (LPG), or compressed natural gas (CNG).

(b) Cooking systems using LPG or CNG must meet the following requirements:

(1) The design, installation, and testing of each LPG system must meet ABYC A-1-78 or Chapter 6 of NFPA 302.

(2) The design, installation, and testing of each CNG system must meet ABYC A-22-78 or Chapter 6 of NFPA 302.

(3) Cooking systems using Chapter 6 of NFPA 302 as the standard must meet the following additional requirements:

(i) LPG or CNG must be odorized in accordance with ABYC A-1.5.d or A-22.5.b, respectively.

(ii) Ovens must be equipped with a flame failure switch in accordance with ABYC A-1.10.b for LPG or A-22.10.b for CNG.

(iii) The marking and mounting of LPG cylinders must be in accordance with ABYC A-1.6.b.

(iv) LPG cylinders must be of the vapor withdrawal type as specified in ABYC A-1.5.b.

(4) Pilot lights or glow plugs are prohibited for an LPG or CNG installation using ABYC A-1 or A-22 as the standard.

(5) CNG installations using ABYC A-22 as the standard must meet the following additional requirements:

(i) The CNG cylinders, regulating equipment, and safety equipment must meet the installation, stowage, and testing requirements specified in paragraphs 6-5.11.1, 2, 3; 6-5.11.5; and 6-5.11.8 of NFPA 302.

(ii) The use or stowage of stoves with attached CNG cylinders is prohibited as specified in paragraph 6-5.1 of NFPA 302.

(6) If the fuel supply line of an LPG or CNG system enters an enclosed space on the vessel, a remote shut-off valve must be installed that can be operated from a position adjacent to the appliance. The valve must be located between the regulator and the point where the fuel supply line enters the enclosed portion of the vessel. A power operated valve installed to meet this requirement must be of a type that will fail closed.

(7) The following variances from NFPA 302 6-5.11.3 or ABYC A-1.11.b(1) are allowed for CNG:

- (i) The storage locker or housing access opening need not be in the top.
- (ii) The locker or housing need not be above the waterline.

PART 58—[AMENDED]

4. The authority citation for Part 58 continues to read as follows:

Authority: 43 U.S.C. 1333; 46 U.S.C. 3306, 3703, 5115; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; 49 CFR 1.46.

5. Section 58.16-1 is amended by revising paragraphs (a) and (c) to read as follows:

§ 58.16-1 Scope.

(a) This subpart prescribes standards for the use of liquefied petroleum gas for heating and cooking on inspected vessels, except ferries.

(c) Except as provided by § 58.16-7(b), all component parts of the system, except cylinders, appliances, and low pressure tubing, shall be designed to withstand a pressure of 500 pounds per square inch without failure.

6. A new § 58.16-7 is added to read as follows:

§ 58.16-7 Use of liquefied petroleum gas.

(a) Cooking equipment using liquefied petroleum gas on vessels of 100 gross tons or more that carry passengers for hire must meet the requirements of this subpart.

(b) Cooking equipment using liquefied petroleum gas on vessels of less than 100 gross tons that carry passengers for hire must meet the requirements of 46 CFR 25.45-2 or 184.05, as applicable.

(c) Systems using liquefied petroleum gas for cooking or heating on any other vessels subject to inspection by the Coast Guard must meet the requirements of this subpart.

PART 147—[AMENDED]

7. The authority citation for Part 147 continues to read as follows:

Authority: 46 U.S.C. 3306; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; 49 CFR 1.46.

8. Section 147.50 is amended by revising paragraph (d) to read as follows:

§ 147.50 Fuel for cooking, heating, and lighting.

(d) Liquefied or non-liquefied gas is prohibited for cooking, heating, and lighting on ferry vessels, but may be used on other inspected vessels if the system in which it is used meets the applicable requirements of Subpart 58.16 or Subpart 184.05 of this chapter, as appropriate, or is approved by the Commandant (G-MTH).

PART 184—[AMENDED]

9. The authority citation for Part 184 continues to read as follows:

Authority: 46 U.S.C. 3306; 49 CFR 1.46.

10 Subpart 184.01 is amended by adding new §§ 184.01-3 and 184.01-4 to read as follows:

Subpart 184.01—Application and Intent**§ 184.01-3 Incorporation by reference.**

(a) Certain materials are incorporated by reference into this part with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a). To enforce any edition other than the one listed in paragraph (b) of this section, notice of change must be published in the Federal Register and the material made available to the public. All approved material is on file at the Office of the Federal Register, 1100 L Street NW., Washington, DC, and at the U.S. Coast Guard, Merchant Vessel Inspection and Documentation Division, (G-MVI), 2100 Second Street SW., Washington, DC 20593-0001, and is available from the sources indicated in paragraph (b) of this section.

(b) The materials approved for incorporation by reference in this part, and the sections affected are:

American Boat and Yacht Council (ABYC)
P.O. Box 747, 405 Headquarters Dr., Suite 3,
Millersville, MD 21108-0747
A-1-78—Marine LPG-Liquefied
Petroleum Gas Systems..... 184.05-1
(December 15, 1978)
A-22-78—Marine CNG-Compressed
Natural Gas Systems..... 184.05-1
(December 15, 1978)

National Fire Protection Association (NFPA)
60 Batterymarch Park, Quincy, MA 02260
302-1934—Pleasure and Commercial
Motor Craft..... 184.05-1
(Chapter 8.) (1984).

§ 184.01-4 OMB control numbers assigned pursuant to the Paperwork Reduction Act

(a) *Purpose.* This section collects and displays the control numbers assigned to information collection and recordkeeping requirements in this subchapter by the Office of Management and Budget (OMB) pursuant to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.). The Coast Guard intends that this section comply with the requirements of 44 U.S.C. 3507(f), which requires that agencies display a current control number assigned by the Director of the OMB for each approved agency information collection requirement.

(b) *Display.*

46 CFR part or section where identified or described	Current OMB control No.
§ 184.05-1	2115-0549

11. Section 184.05-1 is amended by revising paragraph (b) and adding paragraph (d) to read as follows:

§ 184.05-1 Restrictions.

(b) Vessels permitted to use liquefied and non-liquefied gases as cooking fuels by 46 CFR Part 147 must meet the requirements of paragraph (d) of this section. The use of these fuels for cooking, heating, and lighting on ferry vessels is prohibited by 46 CFR Part 147.

(d) Cooking systems using liquefied petroleum gas (LPG) and compressed natural gas (CNG) must meet the following requirements:

(1) The design, installation, and testing of each LPG system must meet ABYC A-1-78 or Chapter 6 of NFPA 302.

(2) The design, installation, and testing of each CNG system must meet ABYC A-22-78 or Chapter 6 of NFPA 302.

(3) Cooking systems using Chapter 6 of NFPA 302 as the standard must meet the following additional requirements:

(i) LPG or CNG must be odorized in accordance with ABYC A-1.5.d or A-22.5.b, respectively.

(ii) Ovens must be equipped with a flame failure switch in accordance with ABYC A-1.10. b for LPG or A-22.10.b for CNG.

(iii) The marking and mounting of LPG cylinders must be in accordance with ABYC A-1.6.b.

(iv) LPG cylinders must be of the vapor withdrawal type as specified in ABYC A-1.5.b.

(4) Pilot lights or glow plugs are prohibited for an LPG or CNG installation using ABYC A-1 or A-22 as the standard.

(5) CNG installations using ABYC A-22 as the standard must meet the following additional requirements:

(i) The CNG cylinders, regulating equipment, and safety equipment must meet the installation, stowage, and testing requirements of paragraphs 6-5.11.1, 2, 3; 6-5.11.5; and 6-5.11.8 of NFPA 302.

(ii) The use or stowage of stoves with attached CNG cylinders is prohibited as specified in paragraph 6-5.1 of NFPA 302.

(6) If the fuel supply line of an LPG or CNG system enters an enclosed space on the vessel, a remote shut-off valve must be installed which can be operated from a position adjacent to the

appliance. The valve must be located between the regulator and the point where the fuel supply line enters the enclosed portion of the vessel. A power operated valve installed to meet this requirement must be of a type that will fail closed.

(7) The following variances from NFPA 302 6-5.11.3 or ABYC A-1.11.b(1) are allowed for CNG:

(i) The storage locker or housing access opening need not be in the top.

(ii) The locker or housing need not be above the waterline.

Dated: January 13, 1989.

J.D. Sipes,

Rear Admiral, U.S. Coast Guard, Chief, Office of Marine Safety, Security and Environmental Protection.

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INTERSTATE COMMERCE COMMISSION**49 CFR Parts 1312 and 1314**

[Ex Parte No. 444]

Electronic Filing of Tariffs

AGENCY: Interstate Commerce Commission.

ACTION: Notice of final rules.

SUMMARY: Pursuant to a notice of proposed rulemaking in Ex Parte No. 444 (52 FR 39549, October 22, 1987), the Commission is adopting regulations that allow electronic tariff filing as an alternative to printed tariffs. To accomplish this, the Commission is replacing its current regulations, which were drafted with only paper tariffs in mind, with regulations that are neutral with regard to the medium by which tariff information is transmitted both to the Commission and to the public. The detailed instructions of the former regulations will be replaced with brief tariff standards that require that tariffs be filed in such a way that rate and service information is described accurately and fully for use both at the time of filing and in the future.

At the same time, the Commission intends by simplifying its tariff rules to facilitate greater innovation and flexibility in the presentation by carriers of price and service options.

Accordingly, the Commission is replacing the detailed regulations at 49 CFR Part 1312 with the revised tariff standards at 49 CFR Part 1314, as set forth below.

DATE: These rules will become effective March 13, 1989.