

is certified that this rule will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (air).

Adoption of the Amendment

In consideration of the foregoing, the Federal Aviation Administration amends 14 CFR part 71 as follows:

PART 71—[AMENDED]

1. The authority citation for 14 CFR part 71 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40103, 40113, 40120; E.O. 10854, 24 FR 9565, 3 CFR, 1959–1963 Comp., p. 389; 14 CFR 11.69.

§ 71.1 [Amended]

2. The incorporation by reference in 14 CFR 71.1 of Federal Aviation Administration Order 7400.9C, Airspace Designations and Reporting Points, dated August 17, 1995 and effective September 16, 1995, is amended as follows:

Paragraph 6005 Class E airspace areas extending upward from 700 feet or more above the surface of the earth.

* * * * *

AEA VA E5 Richlands, VA [New]

Tazewell County Airport, VA
(Lat. 37°03'49" N, Long. 81°47'54" W)

That airspace extending upward from 700 feet above the surface within a 6-mile radius of Tazewell County Airport.

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Issued in Jamaica, New York on April 10, 1996.

John S. Walker,

Manager, Air Traffic Division, Eastern Region.
[FR Doc. 96–11024 Filed 5–2–96; 8:45 am]

BILLING CODE 4910–13–M

CONSUMER PRODUCT SAFETY COMMISSION

16 CFR Part 1500

Requirements for Labeling of Retail Containers of Charcoal

AGENCY: Consumer Product Safety Commission.

ACTION: Final rule.

SUMMARY: Under the Federal Hazardous Substances Act, the Commission issues a rule to change the required labeling for retail containers of charcoal intended for cooking or heating. The labeling addresses the potentially lethal carbon monoxide hazard associated with burning charcoal in confined spaces. The amendments, which include a pictogram, make the label more noticeable and more easily read and understood and increase the label's ability to motivate consumers to avoid burning charcoal in homes, tents, or vehicles.

DATES: The amended rule becomes effective November 3, 1997.¹

FOR FURTHER INFORMATION CONTACT: Mary Toro, Division of Regulatory Management, Office of Compliance, Consumer Product Safety Commission, Washington, D.C. 20207; telephone (301)504–0400 ext. 1378. Copies of documents relating to this rulemaking may be obtained from the Office of the Secretary, Washington, DC 20207, telephone (301)504–0800.

SUPPLEMENTARY INFORMATION:

A. Background

1. Relevant Statutes and Regulations. Since its creation in 1973, the Consumer Product Safety Commission ("Commission" or "CPSC" has administered the Federal Hazardous Substances Act ("FHSA"), 15 U.S.C. 1261–1278. Prior to that time, the FHSA was administered by the Food and Drug Administration ("FDA").

The FHSA defines "hazardous substance" as including any "substance

or mixture of substances which (i) is toxic * * * if [it] may cause substantial personal injury or substantial illness during or as a proximate result of any customary or reasonably foreseeable handling or use * * *." Section 2(f)(1)(A) of the FHSA, 15 U.S.C. 1261(f)(1)(A). Hazardous substances are misbranded if they do not bear the labeling required by section 2(p)(1) of the FHSA, 15 U.S.C. 1261(p)(1).

Section 3(b) of the FHSA, 15 U.S.C. 1262(b), authorizes the Commission to issue regulations establishing variations from or additions to the labeling required under section 2(p)(1) if the Commission finds that the requirements of section 2(p)(1) are not adequate for the protection of the public health and safety in view of the special hazard presented by any particular hazardous substance. Rulemaking under section 3(b) is conducted under the informal notice and comment procedure provided in 5 U.S.C. 553.

In addition, section 3(a) of the FHSA, 15 U.S.C. 1262(a), authorizes the Commission to issue regulations declaring products to be hazardous substances if the Commission finds they meet the definition of hazardous substance in section 2(f)(1)(A). The purpose of this authority is to avoid or resolve uncertainty as to the application of the FHSA. 15 U.S.C. 1262(a).

In 1971, the Food and Drug Administration ("FDA") issued a rule under section 3(a) of the FHSA to declare charcoal in containers for retail sale and intended for cooking or heating to be a hazardous substance. 36 FR 14,729 (August 11, 1971); 21 CFR § 191.5. At the same time, FDA issued a rule under section 3(b) of the FHSA to require a statement on such packages of charcoal that would warn of the potentially deadly hazard of CO poisoning from charcoal when used in a confined area. *Id.* at § 191.7. These rules are currently codified at 16 CFR §§ 1500.12(a)(1) and 1500.14(b)(6), respectively. The currently required label is as follows:

BILLING CODE 6355–01–P

WARNING: Do Not Use for Indoor Heating or Cooking Unless Ventilation is Provided for Exhausting Fumes to Outside. Toxic Fumes May Accumulate and Cause Death.

¹ The Commission voted 2–1 to issue this rule. Chairman Ann Brown and Commissioner Thomas H. Moore voted in the majority. Commissioner Mary

Sheila Gall voted in the minority. Each commissioner issued a separate statement concerning this vote. Copies of the statements can

be obtained from the Commission's Office of the Secretary, Washington, DC 20207, telephone (301) 504–0800.

BILLING CODE 6355-01-C

The current label is required to appear on both the front and back panels of bags of charcoal, in the upper 25% of the panels, at least 2 inches below the seam, at least 1 inch above any other reading material or design element of the bag, and in specified minimum type sizes.

2. Nature of the hazard. [6, Tab B]² CO is produced by the incomplete combustion of fuels such as charcoal. The level of CO produced from burning charcoal may accumulate to toxic levels in closed environments. CO is a colorless, odorless gas which reduces the blood's ability to carry oxygen by reacting with hemoglobin to form carboxyhemoglobin (COHb). Individuals' reactions to CO exposure vary depending on several factors, including age, health status, and smoking habits. Due to the nonspecific symptoms that can be associated with CO poisoning (e.g., fatigue, lethargy, dizziness, diarrhea, or nausea), misdiagnoses of both acute and chronic CO poisonings can be expected. Additionally, CO is odorless, which may contribute to individuals frequently being unaware of their exposure to CO. High levels of COHb in the blood can cause death.

3. Petition from Barbara Mauk. On October 12, 1990, CPSC received a letter from Barbara Mauk petitioning the Commission to amend the current label on bags of charcoal. [1] In this letter, the petitioner described an incident that occurred when she and her son were camping 1 year previously. Her son died from CO poisoning, and she was hospitalized and treated for CO poisoning, after she brought a still-warm charcoal grill inside her camper. The petition (No. HP 91-1) requested that the current label on bags of charcoal be revised to state that: (1) charcoal produces CO (and, if applicable, other lethal or toxic fumes), (2) charcoal produces fumes until the charcoal is completely extinguished, and (3) CO has no odor.

On December 22, 1992, the Commission voted to grant the petition as to the statements that charcoal produces CO and that CO has no odor, and to deny the petition as to adding statements that charcoal produces these fumes until the charcoal is completely extinguished. [2] The Commission also voted to improve the label's precautionary language, specifically with reference to ventilation. In this regard, it was thought that the current

label's statement that charcoal should not be used for indoor cooking or heating unless ventilation is provided is dangerously misleading. Consumers may assume erroneously that measures such as opening a door or cracking a window would provide adequate ventilation. Further, consumers are unlikely to be able to supply the exhaust hoods, ducting, and powerful positive exhaust fans that are needed to provide adequate ventilation.

4. Subsequent actions by the Commission. In 1993, the Commission's staff became aware of data that indicated that a pictogram is needed to communicate the safety message to those who do not read English. [6, Tab E(1)] Further, an article, discussed below in section B of this notice, reported that 73% of the victims in one area over an 11-year period were members of ethnic minorities, many of whom were Hispanic or Asian immigrants who could not speak English. [3]

On April 22, 1994, the staff met with members of the charcoal industry to present the staff's recommendations for revising the warning label. Industry members indicated a willingness to revise the warning label, but raised a number of concerns. [6, Tab F] These concerns were considered in further developing the label.

On June 1, 1994, the Commission directed the staff to prepare, for the Commission's consideration, a draft notice of proposed rulemaking ("NPR") to amend the labeling currently required for packages of charcoal to warn of the dangers of burning charcoal indoors. The label to be developed by the staff would: (1) clarify the dangers of burning charcoal indoors; (2) remove the possibly misleading statement that implies that charcoal can be safely burned indoors with "ventilation;" (3) add color to the signal word panel; (4) include a pictogram, if feasible; (5) include a Spanish safety message if a pictogram is not feasible; and (6) include additional features recommended by the staff to make the safety messages more conspicuous and understandable.

On April 13, 1995, staff met with industry members again to present the results of pictogram tests and staff's recommendations for revising the warning label on packages of charcoal. [6, Tab F] The changes to the recommended warning label reflected, for the most part, concerns industry representatives raised at the April 1994 meeting. After considering the comments made at the April 1995 meeting, the staff recommended a revised label to the Commission. The

staff also described possible variations of that label for the Commission's consideration. The proposed label, and the main reasons that various features of the label were chosen, are described in section D of this notice. The proposed rule was published in the Federal Register on August 10, 1995, with a request for public comments, to be submitted no later than October 24, 1995. 60 FR 40785. The comments received on the proposal, and the Commission's responses to the comments, are described below in Section E of this notice.

B. CO Poisoning Incidents

The Commission's Division of Hazard Analysis examined available data concerning CO poisoning incidents. That Division estimates that there was an average of about 28 non-fire CO-related deaths per year associated with charcoal grills and hibachis from 1986 to 1992.³ (The annual estimate of non-fire CO deaths fluctuates, with no discernible pattern. The estimates ranged from 20 in 1987 and 1990 to 38 in 1992.)

Data from the CPSC's National Electronic Injury Surveillance System ("NEISS") indicate that there was an average of about 300 emergency-room-treated injuries involving charcoal grills and hibachis annually from 1991 to 1994. [6, Tab C] After the Commission considered the proposed rule, the Commission's Hazard Analysis staff reviewed eight additional incident reports involving CO deaths and injuries associated with the indoor use of charcoal. These incidents were for the years 1994 to the present. [15] The factors identified in these recent incidents were very similar to those previously reported.

There were 14 victims reported in the additional incidents: 9 died and 5 recovered. Where a victim's membership in an ethnic minority was reported, Hispanics continued to be the group reported most often. The data indicated that the Hispanic victims either spoke little or no English. The circumstances indicated that the victims were unaware of the potential lethal effects of burning charcoal indoors.

Most of the incidents involved a charcoal grill. Information on the safety labeling on packages of charcoal was not available. However, the Commission's Office of Compliance has no record of opening a case based on a violation of the charcoal special labeling

²Numbers in brackets indicate the number of a document as listed in the List of Relevant Documents in Appendix 1 to this notice.

³As noted above, CO is produced as a product of incomplete combustion. The term "non-fire" means that the CO was not produced by a conflagration or other unintended combustion.

requirement, and there is no reason to believe that the packages of charcoal involved in these incidents did not bear labels warning of the CO hazard.

Many of the incidents occurred when victims burned charcoal in their homes or in vehicles. Most of the incidents occurred when victims used charcoal to keep warm. Most of the incidents occurred during the fall and winter.

An article by Hampson, N.B. et al. (1994), reports that 79 victims were treated for CO poisoning resulting from burning charcoal indoors in the Seattle, Washington, area between October 1982 and October 1993. [3] Fifty-eight (73%) of the victims were members of ethnic minorities, many of whom were Hispanic or Asian immigrants who could not speak English. [3] There was no information available, however, documenting whether they could read English.

C. The Pictogram

The CPSC staff, a charcoal manufacturer, and Dr. Neil B. Hampson of Washington State each developed a pictogram. [6, Tab E(2)] Each pictogram was tested according to ANSI Z535.3, American National Standard for Criteria for Safety Symbols. The pictogram developed by CPSC staff obtained the highest percentage of correct responses in the first round of testing. This pictogram achieved 56% correct responses, with 4% critical confusion. (Critical confusion is where the message conveyed is the opposite of the intended message.) Based on findings from the test results, the three pictograms were revised and presented for a second round of testing. The revised pictogram developed by a charcoal manufacturer obtained the highest percentage of correct responses in this round of testing (74% correct responses, with no critical confusion).

The ANSI Z535.3 test method recommends that, to be selected, a pictogram should either obtain 85% correct responses with no more than 5% critical confusion or be paired with

other features, such as a verbal message. [10] For the reasons discussed below in responding to comments on the proposal, the Commission concludes that it is appropriate to use the pictogram that scored highest in the tests described above.

D. The Proposed Label

The Commission's Human Factors staff concluded that, as a matter of optimum label design, it would be desirable for the label to be consistent with the ANSI Z535.4, American National Standard for Product Safety Signs and Labels. [6, Tab E(1)] In meetings before the Commission considered the proposal, however, the industry pointed out that this optimum label would require the bag to have a minimum of four colors: red, orange, black, and white. The industry stated that many of the printing presses for charcoal bags have the capability of printing only six colors, and that presses capable of printing more than six colors are very expensive. Generally, most bags already have at least six colors, and the presently-used colors often do not include one or more of the colors that would be required by the "optimum" label described above. Industry members stated that customers may consider the color scheme of a product to be part of its brand identification.

For the reasons given by the industry, the Commission proposed a label that did not use the colors specified by ANSI, but will still be conspicuous. [13] Thus, the revised label will not change the present requirement that the label shall be in a "color sharply contrasting with the background" and that the borderline shall be "heavy." Examples of color combinations that the Commission's staff considers to be sharply contrasting, in order of expected visual efficiency, are: black on white; black on yellow; white on black; dark blue on white; white on dark red, green, or brown; black on orange; dark green and red on white; white on dark gray; and black on light gray. [9] Examples of

colors that may not be considered sharply contrasting are: black on dark blue or dark green, dark red on light red, light red on reflective silver, and white on light gray or tan. See 16 CFR 1500.121(d).

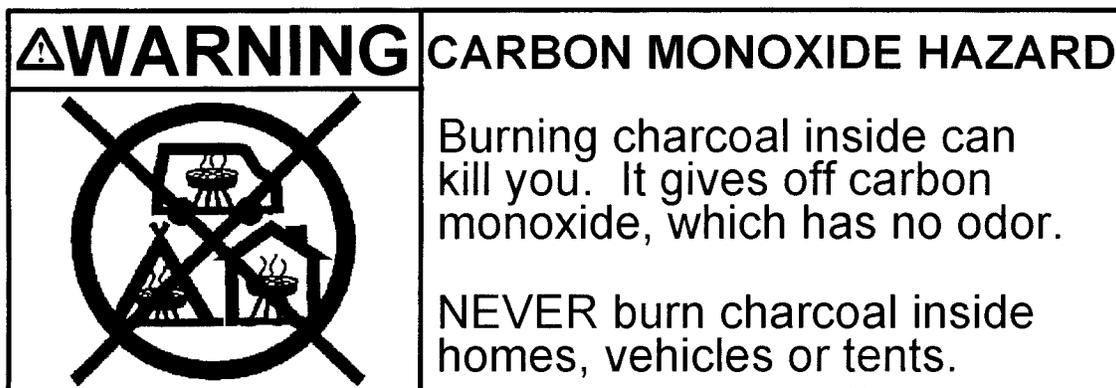
To make the label easier to read and understand, the Commission proposed that the messages be presented concisely and in an outline form, be presented in a horizontal format, be left-justified with a ragged right margin, be in upper and lower case lettering, be in the appropriate point-type, have an acceptable strokewidth-to-height ratio, and have sufficient space between lines of text. [6, Tab E(1)]

When the minimum specified type sizes are laid out in the configuration specified in the revised label, the label is 2 inches high. The revised label is taller than the currently required label. The current label also is required to be at least 2 inches from the top seam. If this required distance were to remain the same, the bottom edge of the taller revised label would have to be lower on the bag. This could interfere with existing graphics, which would then have to be redesigned. This could require additional modifications to printing plates and increase the cost of the label revision, without providing any identifiable safety benefit. Therefore, the Commission proposed to change the minimum allowable distance from the top seam to the label from 2 inches to 1 inch. This would allow the taller label to be printed without affecting other printing lower on the bag.

The Commission proposed to retain the current requirements that the label must be on both the front and back panels of the bag and in the upper quarter of the panels.

For the reasons stated above and elsewhere in this notice, the Commission is revising the label required on packages of charcoal to appear and read as follows:

BILLING CODE 6355-01-P



BILLING CODE 6355-01-C

E. Comments on the Proposal

The Commission received seven comments in response to the notice of proposed rulemaking. The issues raised by the comments are summarized below, along with the Commission's responses.

Issue: Pictogram

Comment: Slash vs. "X." Several commenters addressed the use in the proposed revised label of an "X" overlaying the pictogram to indicate that the actions depicted in the pictogram are prohibited. A commenter argued that this aspect of the pictogram is not consistent with any international standard or to ANSI Z535.3 "Criteria for Safety Symbols," in which prohibited actions are characterized by a single slash in a circle. Another commenter stated that a single slash ending at the edges of the circle across three separate pictograms for each at risk location may be more universally recognized and effective than an X. The commenter believed this would be more in line with global marketing standards. This commenter noted that the pictogram was tested using a population largely made up of Hispanics, and questions whether the same results would have been obtained with other ethnic groups.

Response: The Commission's Human Factors staff conducted a two-phase study to determine which pictogram most clearly conveyed the safety message to the at-risk population. Three pictograms were tested in the first phase, all of which incorporated a circle with the ANSI-recommended diagonal slash through the image. The most effective pictogram was understood by only 56% of the subjects, with 4% critical confusion. (Critical confusion means that the subjects' response was the opposite of the correct response.)

The test subjects' responses during the test sessions and debriefing revealed that some of the subjects thought that

the slash applied to only those items in the circle that actually intersected with the slash. Other subjects did not understand that the slash was a prohibition symbol. Subjects recommended the use of an "X" to better communicate the prohibition message. Although the slash is commonly used to communicate the message of "no" or "don't," it was clearly not effective with some Latin American subjects.

Consistent with ANSI Z535.3, the second round of testing incorporated design lessons drawn from the results of the first round of testing. The slash was replaced by an "X," and several minor design changes were made to the pictograms. The measured comprehension improved significantly.

Based on the data, Human Factors concluded that using the "X" in place of the slash is fully justified because:

1. The highest comprehension score using a slash was 56% with 4% critical confusion. All three pictograms tested in the second round using the "X" scored significantly better than the best slash pictogram tested in the first round. The pictogram ultimately selected was identified correctly by 74% of the test subjects, with 0% critical confusion.

2. The primary objective for developing and selecting the pictogram design was to maximize the effectiveness of the prohibition message, to never burn charcoal inside a house, tent, or vehicle. Effectiveness was defined and empirically measured by assessing the explicit understandability of the pictogram by a sample of at-risk charcoal users. This is precisely the primary criterion described in ANSI Z535.3-1991. Section A.1 of ANSI Z535.3-1991 states, "In the following procedure, the primary criterion for determining symbol effectiveness is that of understandability; in other words, that the symbol clearly conveys the intended message to the appropriate test group." Based on the Commission's primary objective, to maximize

effectiveness, and ANSI's endorsement of that goal, the use of the "X" is justified.

3. Although ANSI clearly defines the slash as the preferred design to designate prohibition, Section 7.4 of ANSI Z535.3-1991 supports the search for new and more effective designs. Section 7.4 endorses this rationale of flexibility and continuous refinement by stating "If a new symbol has been tested and found to be acceptable, it and the results of the testing procedure may be forwarded to the ANSI Z535 Committee for consideration for inclusion in a revision of the present standard." The Commission intends to submit the results of this work to ANSI so that they may consider the merits of supporting alternate symbol designs for ethnic or other special populations.

The empirically validated pictogram that was ultimately selected for the new labeling requirement meets the original CPSC objective of maximizing effectiveness and is consistent with the principles for designing labels specified in ANSI Z535.3. Regarding the comment that the label should be universal and not ethnically sensitive, the label is designed to be effective for all charcoal users.

Therefore, the Commission concludes that the X symbol is a more effective communicator of the behavior to be prohibited than is the slash. Accordingly, no change in the proposed revised label is warranted in this regard.

Comment: Effectiveness of the pictogram. Commenters contended that the pictogram fails to satisfy recognized standards of effectiveness. The commenters state that the ANSI standard requires 85% correct responses with a maximum of 5% critical confusion, while the CPSC-proposed pictogram received 74% correct responses with no critical confusion. One company believes that 74% is significantly different from 85% and expressed serious concern about a pictogram which failed recognized

standards of effectiveness not by 1 or 2%, but by 11%. The fact that the proposed pictogram had no critical confusion, whereas ANSI allows up to 5%, is irrelevant to this commenter.

Response: These commenters are incorrect in stating that the CPSC-tested pictogram does not meet the effectiveness criteria of ANSI.

The particular number of correct responses obtained in the test of a label depends on the particular test methodology used. Therefore, there is no precise way to define acceptable and unacceptable scores. ANSI Z535.3, section A.2.7, states "A criterion of 85% correct responses with a maximum of 5% critical confusion is suggested for acceptance of a given symbol." Section A.2.7 of ANSI Z535.3, however, states that symbols which fail to meet the 85% level should be used with a supplementary word message, or be supplemented by specialized training. Thus, ANSI Z535.3 clearly recognizes that scores less than 85% may still be used in certain circumstances.

CPSC's label incorporates the features that ANSI recommends for labels scoring less than 85% correct responses. Although the pictogram was tested alone, the recommended label contains both the pictogram and a written message. Additionally, the CPSC's staff met with the charcoal industry regarding an information and education campaign to warn consumers about the dangers of burning charcoal indoors.

The Human Factors staff chose to use an experimental methodology that was extremely rigorous and that therefore may have biased the measured comprehension scores downward. This was done to maximize confidence in the measured scores, and to minimize possible criticism about inflating the scores through using a less stringent method. The following factors may tend to lower the percentage of correct responses in CPSC's tests compared to that which might be obtained using other test methodologies that would also be acceptable under ANSI Z535.3:

1. ANSI Z535.3 endorses both open-ended testing and multiple-choice testing. The Human Factors staff chose to use open-ended testing as it is the most demanding assessment process to measure comprehension. Both ANSI and the Commission recognize that this rigorous methodology may negatively influence scores. ANSI Z535.3, Section A.2.6, states "It should be stressed that different techniques may not give comparable results."

2. The criteria used to select subjects were strongly biased toward selecting an at-risk sample. Fifty percent of the subjects were Hispanics who did not

read English and were at or below the government standard for poverty. The remaining half were of no specified ethnicity who did read English and were below the median income. No middle or upper income people were included in the test. The Human Factors staff chose to pursue this methodology in order to assess the pictogram in the worst-case situation. The objective was to ensure that the selected pictogram communicates the hazard to the populations that are at greatest risk. More correct responses might have been obtained if the sample tested had represented the general population.

3. In order to reduce the possible learning effect associated with viewing the pictograms in succession, the pictograms were presented out of context, that is, on a white sheet of paper. They were separated from each other by pictograms associated with other hazards. Had the pictograms been tested in context, on bags of charcoal, it is likely that higher comprehension scores would have been obtained. [15, Tab D(1), Cahill, 1975]

Furthermore, the International Organization for Standardization ("ISO"), issued an international standard, ISO 9186, *Procedures for the Development and Testing of Public Information Symbols*, that recommends testing methodologies to evaluate symbols intended to be used internationally. These methodologies are intended to test the common effectiveness of symbols for populations of different countries; the tests were not developed to evaluate labeling in the U.S. Section 5.5.7 of ISO 9186 states, "If the comprehension score * * * exceeds 66%, then this variant may be used to define the standard image content." Later in the same section, "For critical referents (e.g. safety symbols), the 66% criterion should be rigorously adhered to." Although ISO 9186 was not designed specifically to test a label such as the one at issue here, it does show that an acceptance criterion for understandability of less than 74% has been adopted by a well-known standards organization.

As noted above, a commenter states that an effectiveness score of 74% is significantly different from the 85% threshold described in the ANSI standard. The commenter is correct if he is referring to "significantly different" in a technical statistical sense; the difference between 74% and 85% in this test is statistically significant at the commonly used 95% confidence level. However, the difference is not significantly statistically different at a 96% confidence level. [16] More importantly, for the reasons explained

above, this issue is not central to whether the CPSC test scores are adequate.

The commenter also states that critical confusion is irrelevant. The Commission disagrees with this conclusion. An individual who is critically confused, and thus believes that the pictogram means that it is appropriate to burn charcoal indoors, may be more likely to create the risk of carbon monoxide poisoning than someone who merely does not know what the pictogram means. This principle is reflected in the ANSI standard, which states, at Section A.2.7, "Where several symbols are evaluated for a given referent, the symbol that both meets the above criteria, and performs best in terms of highest percentage of correct answers and lowest percentage of critical confusion should be selected."

Comment: Size of the test group. A commenter contended that the 50-member test group was too small for this type of testing. According to the commenter, a minimum of 100-150 subjects should be used.

Response: The number of test subjects used by the Commission is consistent with ANSI Z535.3, which suggests a minimum of 50 subjects as the "best balance between statistical reliability and ease of testing." [10] Thus, in the absence of any specific reason why the information obtained by using 50 subjects is unreliable, the Commission concludes that an adequate number of persons were tested.

Comment: Label "clutter." A commenter contended that the pictogram is small and cluttered compared to the size of the label and does not conform to an ANSI standard pictogram format, which depicts one message icon per enclosed symbol.

Response: The selected pictogram conforms to the general principles described in ANSI Z535.3. A pictogram with only one icon, a house, was tested in the first round. A number of subjects did not generalize that pictogram to include vehicles and tents, which are extremely dangerous places to use charcoal improperly. Subjects suggested including a vehicle and tent to communicate the message "Never burn charcoal inside homes, vehicles, or tents." The proposed pictogram includes all three elements. According to ANSI Z535.3, the intent of the testing procedure is "to choose a symbol which best conveys the message." Thus, the pictogram selected conforms to the ANSI testing procedure.

Any perception of "clutter" could be reduced by making the pictogram larger. However, this would increase the

minimum height of the label. The Commission believes the minimum allowable label height will effectively communicate the desired messages. The Commission is not requiring a larger label for the reasons propounded by the industry and discussed below.

For the reasons discussed above, the Commission concludes that the label will be sufficiently effective.

Comment: Lack of pictogram specificity may discourage charcoal use. A commenter contends that the pictogram does not identify the danger associated with charcoal misuse and does not convey what CO is. The commenter fears that rather than simply warning users about the danger of using charcoal in confined areas, the pictogram may discourage charcoal grilling. The commenter also asked what message was received by the 26% who did not respond correctly.

Response: Admittedly, a pictogram may not be a feasible way to explicitly communicate the invisible hazard of CO. However, most people will get the intended concept that they should not burn charcoal inside homes, vehicles, or tents, even if they will not learn from the pictogram alone that the hazard is CO. This is shown by the 74% rate of correct responses for the selected pictogram. Additionally, the pictogram and the words together convey the complete message.

The remaining 26% of the subjects, who did not give correct responses, either omitted part of the intended message or completely missed the concept. However, none of these subjects were left with the impression that they should not use charcoal or not use it for grilling. Thus, there is no reason to conclude that the pictogram will cause any reduction in charcoal sales. The issue of whether the entire label will cause any reduction in sales is discussed later in this section.

Issue: Label Proportional to Package

Comment: Keep specified label size as a minimum only. In the proposal, the Commission specified a minimum required size for the label and solicited comment on whether to require that bags that are larger than the smallest bags on the market bear labels that are larger than the minimum. Two manufacturers commented that if larger warning labels are required on larger bags, artwork lower on the bags may have to be changed. Therefore, the commenters recommended that the size be specified as a minimum, as proposed.

Response: The Commission agrees that requiring larger labels on larger bags is likely to increase the cost of the rule in some cases by requiring

additional changes to the graphics on the bags. Further, the Commission lacks data from which to conclude that any benefits of larger labels on large bags would justify these increased costs. Accordingly, the Commission is not requiring that the size of the required labeling increase in proportion to the size of the bag.

Issue: Layout of Label

Comment: Label format. A commenter stated that CPSC's proposed label arrangement does not conform exactly to ANSI Z535.4 "Product Safety Signs and Labels" guidelines. The commenter mentioned that the label should be divided into two halves, one half being the pictogram/graphic panel and the other half being the signal word and word message panel. Alternatively, the signal word could be centered above the pictogram and word message panels.

Response: While ANSI Z535.4 provides an example of a label configuration as described by the commenter, ANSI maintains that "actual * * * layout * * * may vary depending on application requirements." [10] The differences between the label finally adopted and ANSI's example were necessary to accomplish the goals of: making the type size of the safety messages consistent, to the extent feasible, with that currently specified in § 1500.14(b)(6); incorporating a legible pictogram; and not unduly increasing the height of the label. Accordingly, this comment provides no basis for changing or rejecting the revised label.

Issue: Responsibility of Users

Comment: Fault of users. A commenter asked how many people involved in the CO events had even "bothered" to read the existing warning label. The commenter also asked how many were under the influence of alcohol or drugs and would not have seen or paid any attention to a warning label of any kind.

Response: Information on whether the victims had actually read the label was not available. Some victims attempted to supply ventilation, however. In most of the incidents, drug or alcohol use was not reported.

Issue: Label Language

Comment: Specificity of warning. A commenter stated that the sentence "NEVER burn charcoal inside homes, vehicles or tents" is too specific. The commenter suggests that the addition of the words "such as" would prevent the public from concluding that it would be safe to burn charcoal in a confined

space other than a home, vehicle, or tent.

Response: The CPSC incident data show that people primarily use charcoal as a heat source inside homes and, secondarily, in vehicles and tents. Thus, the label is intended to address use in those areas. The commenter provides no data showing that other locations are likely to be involved in this type of incident. Adding words that cannot be shown to be beneficial is undesirable, since people are more likely to read a label message if it is short and concise. Additional wording also could have possible adverse effects on the label's height or lettering size. Accordingly, the Commission declines to adopt the suggestion.

Comment: Understanding the term "carbon monoxide." A comment stated that the label statement that charcoal "gives off carbon monoxide" may be ambiguous to those with minimal education or limited knowledge of English. For example, the commenter suggested that such users might think that CO was associated with charcoal ashes. The commenter suggests that the term "gas" be used to link the statement to the warning hazard.

Response: The Commission has no reason to believe that persons with a limited command of English would interpret that ashes, or anything other than a gas or fumes, would be "given off" by charcoal. The charcoal does not "give off" ash, but rather becomes ash. In addition, some consumers are aware that CO is deadly and would therefore be motivated to comply with the label for that additional reason. The addition of the word "gas" is not likely to be of further benefit. Thus, no change in the label language in this regard is needed.

Comment: Spanish and/or English. A commenter notes that the summary data indicate that Hispanics are at higher risk than the general population. The commenter states that this problem could be better addressed if the label's text were in both English and Spanish.

Response: The Commission's staff previously recommended that if the pictograms tested did not adequately communicate the safety message, then the message should be presented in both English and Spanish. As noted above, however, the Commission concludes that the pictogram does adequately convey the message. Furthermore, according to the clinical psychologist who administered the test—who regularly works with low-income Hispanics—many in the target population are unable to read either English or Spanish. [6, Tab E(2)] Therefore, a safety message in Spanish instead of a pictogram would not reach

those Hispanics who do not read Spanish. Additionally, while the largest single group of minority victims identified in the CPSC data is Hispanic, others—most notably Asian immigrants who do not read English or Spanish—would not be informed by a label in either language.

Accordingly, a pictogram appears to be the most effective measure to address those who do not read English. The Commission does not believe that a label that combines both English and Spanish warning statements with a pictogram is warranted. For the reasons discussed above, the Commission cannot conclude in this case that such a label would be significantly more effective than one combining a pictogram and a warning statement in English. Furthermore, including both languages and a pictogram on the label would increase the size of the label, with potential additional costs to the industry.

Comment: Children of illiterate immigrants. A commenter suggested that the Commission overlooked the fact that children of persons illiterate in English play an important role in the family because the children can read English and often act as the family's interpreters. Accordingly, the commenter concluded that the label should consist of a pictogram and an English language warning that could be understood by the 12 through 18 year old children of illiterate immigrants. The commenter suggested an expanded version of the Commission's proposed label. The commenter suggests the label should be "comprehensible by a child with a reading level corresponding to approximately the sixth grade."

Response: The Commission is not aware of any data showing that the children of illiterate immigrants act as interpreters of the warning label on packages of charcoal. Nevertheless, the revised label for packages of charcoal, issued below, is written at the seventh grade level, as is the commenter's suggested label. Thus, most if not all of the teenagers referred to by the commenter would be able to read the revised label.

The additional wording suggested by the commenter would not necessarily increase safe behavior compared to the revised label. Further, the additional wording could decrease the likelihood that the label would be read by the user. Accordingly, the Commission is not adopting this commenter's suggested wording change.

Comment: Other toxic products. A commenter believes that the current labeling language is very clear; that labeling refers to "toxic fumes." The

commenter argues that because toxic fumes other than carbon monoxide may be emitted from burning charcoal, the current labeling should not be revised.

Response: Although charcoal produces combustion by-products other than CO, CO production is the most significant hazard. A specific reference to CO will better communicate the nature of that hazard, since many people already are familiar with the lethal potential of CO. Further, the safety message conveyed by the label addressing the CO hazard may address the hazard of any other toxic fumes produced by charcoal. Thus, the current labeling language is being revised to address only the CO hazard.

Comment: "Burning" charcoal. A commenter suggests that the term "burning charcoal" implies that a flame must be present in order to present the hazard. However, smoldering coals are equally dangerous. The commenter suggests referring to "lit or partially lit," instead of "burning," charcoal.

Response: Charcoal is a familiar product. Most people know that, when charcoal is lit, flames are produced initially and that the flames eventually subside, resulting in glowing charcoal. It is unlikely that consumers would think that the phrase "burning charcoal" suggests that charcoal is not burning unless it produces a flame. Accordingly, replacing the word "burning" with the longer phrase "lit or partially lit" is not warranted.

Comment: Burn time. A commenter stated that, although the proposed warning is much more explicit than the previous warning, it still gives no real indication about how long charcoal "burns" and gives off CO after it no longer seems to be burning. Even with the proposed warning, some people may still bring CO releasing charcoal into an enclosed area thinking that it is no longer dangerous.

Response: Information available to the Commission indicates that most users who are killed or injured by this CO hazard are intentionally using charcoal indoors as a heat source and are unaware of the danger. Thus, the revised warning label is intended to address this primary scenario.

Further, it would be difficult to tell consumers how to determine when the charcoal is completely extinguished. In addition, it is likely that adding the sort of information suggested by this commenter would dilute the label's ability to communicate the primary hazard. Accordingly, the Commission is not adopting this suggestion.

Comment: First-aid instruction on label. A commenter suggested that, as with other potentially fatal products, it

would help save lives if the warning label also described what to do in the case of CO poisoning.

Response: The labeling requirements for charcoal under 16 CFR 1500.14(b)(6) specifically state that they supplement the labeling required for hazardous household substances by section 2(p)(1) of the FHSA. Section 2(p)(1) requires that the label bear an instruction for first-aid treatment when "necessary or appropriate."

First-aid instructions in labels for packages of charcoal would be useful only after the users have disregarded or failed to read the label's warning to not burn charcoal inside. Before a label's first-aid instruction would be useful under these circumstances, a person would have to suspect that the symptoms being experienced or observed are caused by fumes given off by the burning charcoal. The incident data available to the Commission do not show that consumers realize the cause of the symptoms being experienced. Thus, the Commission lacks data at this time from which to conclude that it is necessary or appropriate to require first-aid instructions for CO poisoning on packages of charcoal.

Issue: Conspicuousness of Label

Comment: Contrasting colors. A commenter urges the CPSC to set more concrete requirements for the conspicuousness and legibility of the warning label. The commenter suggests dark lettering on a white background with the word "WARNING" and the pictogram "X" in red.

Response: The Commission agrees that it is important that the revised label be conspicuous and legible. Accordingly, the Commission has adopted a number of requirements to achieve these goals. More than two colors are not necessary to achieve conspicuousness. To enhance the conspicuousness of the label, the revised label contains: contrasting colors as specified in 16 CFR 1500.121(d)(1), a pictogram, and an easily read type size. Other enhancements, including a concise safety message, make the safety messages easily understood.

Requiring the use of red, white, and a dark color in the label would, in some cases, require either the redesign of the bag's graphics or machinery that can print a higher number of colors. As discussed below in Section G of this notice, the purchase of such additional equipment could increase the initial, one-time expenses of the rule by more than 5 times. It also could introduce ongoing expenses that will not be caused by the rule as adopted. The

Commission cannot conclude that any increase in effectiveness that might occur as the result of using these additional colors would warrant the substantial additional cost of such a rule. Accordingly, the Commission has not adopted this suggestion.

Issue: Placement of Label

Comment: Margin to seam. A commenter argued that allowing only 1 inch between the top of the warning and the seam of the bag is not enough. The commenter noted that many people open the bag by tearing under the seam. This practice could result in tearing through the warning and rendering it unreadable to the next user of the charcoal left in the bag. The commenter also stated that because people roll the top part of the bag down to keep it closed after removing some of the charcoal, a third warning should be required toward the bottom of the bag. The commenter argued that, with the present proposal, only the person who first opens a bag of charcoal has a good chance of seeing the warning.

Response: The Commission agrees that the revised label could be obliterated by ripping the bag. However, many bags are constructed so the top seam can be neatly opened. In any event, the consumer is likely to see the label before opening the bag. As to the lack of visibility due to rolling the top of the bag for storage, the label would become visible again when the bag is unrolled for use. There are no data showing that the increased costs of placing the warning labels lower on the bag, or adding another warning label, to address these concerns would be justified.

Comment: Location of label's borderline. A commenter requested clarification in the final rule that it is the label's heavy borderline that should be at least 1 inch "below the seam and at least 1 inch above any reading material * * *." Otherwise, the commenter expressed the concern that the rule could be interpreted as applying the 1-inch clearances to the lettering within the borderline.

Response: The Commission concludes this comment has merit, and the final rule has been clarified in this regard.

Issue: Typography

Comment: Boldface type and capital letters. A commenter stated that if boldface type is intended for any part of the label, it should be clearly specified in the final rule. Also capital letters should be specified for the statement of hazard, if that is the intent.

Response: The Commission agrees, and this has been clearly specified in the final rule.

Issue: Effectiveness of Labeling

Comment: Effectiveness of old label. A commenter asked whether the incidents involving charcoal were occurring as a result of the existing warning on the label or in spite of the warning? If the latter is true, the commenter recommends that the Commission consider other alternatives to address these incidents.

Response: The available information is insufficient to show how the current label affects users. However, the label currently required is dangerously misleading since it may imply to the user that it is safe to burn charcoal indoors. The label needs to be modified to correct this flaw. Further, for the reasons stated above, the label should be modified to better address the hazard. Thus, in either of the situations described by the commenter, it is appropriate to revise the label.

Comment: Benefits (effectiveness) of new labels. A commenter contends that the Commission should not impose significant changes in the labeling requirements for packages of charcoal unless data exist in the record showing that persons who would burn charcoal indoors with the current label would not do so with the revised label. Another company was concerned about the most likely potential benefit to society instead of the maximum potential benefit, which was estimated at \$134 million.

Response: The Commission is unable to obtain data sufficient to quantify the effectiveness of the new warning label. However, as described above, there are several problems with the current label.

The new warning label addresses the deficiencies of the current label. The revised label eliminates the potentially misleading statement that implies that consumers can safely burn charcoal indoors if ventilation is provided. In addition, the label's arrangement and wording more closely follow principles established by labeling experts that are intended to make labels more effective. Finally, the new label incorporates a pictogram, which is likely to make the label more effective for the at-risk populations that do not read English. Therefore, the revised label will inform people about the risks of burning charcoal indoors better than the present label.

The new label need not be very much more effective than the current label in

order to justify its costs.⁴ The estimated one-time cost to industry of revising the label is \$1 million. If this is viewed as an investment that will save a life in the future, the benefits of the rule would exceed its costs if the label revisions avert only one death within 32 years of the change. (This assumes a value of \$5 million for saving a statistical life and a 5% discount rate. A 10% discount rate would produce positive net benefits if the death was averted during the next 16 years.)

Making some assumptions may help to visualize the extremely low degree to which the revised label would need to be effective in preventing deaths to be cost-effective. One assumption is that the average estimated number of deaths per year for the 7-year period 1986–1992 would continue if the label is not changed. Under this assumption (and with the 5% discount rate, \$5 million per life scenario described above), the label's revision would be cost-effective if it were only about 1/10 of one percent effective in reducing deaths.

Issue: Loss of Sales

Comment: Loss of sales. One commenter is more concerned about the potential for the rule to induce a loss in sales of charcoal than about any increase in printing costs. Another commenter also is concerned about a loss of sales, believing that a label change is not justified by the record.

Response: Seventy-four percent of the pictogram test subjects understood that the pictogram indicates that they should not burn charcoal in homes, tents, and vehicles. However, none of the subjects thought that the pictogram meant that charcoal should not be burned or should not be used for grilling. This indicates that there should be no measurable negative impact on sales of charcoal.

Issue: Effective Date

Comment: Length of delay. One company recommends that the effective date of the final rule be 12 to 18 months after its publication, as proposed, assuming the final rule is published in January or February of 1996. Another company requests at least a 30-month effective date because the company holds up to a 3-year supply of preprinted bags. According to this commenter, any effective date less than 30 months should apply only to bags printed, rather than filled, on or after

⁴The Commission is always interested in ensuring that the costs of its rules are reasonable in relation to their expected benefits. For the reasons given below, the Commission believes that is the case here. However, in this type of proceeding, there is no statutory requirement that costs and benefits must be determined or balanced.

the effective date. One commenter recommends that the new rule should go into effect no later than 12 months from October 1995 so that, by next winter, charcoal bags will have the new warning label.

Response: An effective date of October 1996, requested by one commenter, will not allow sufficient time to change over to the new label. On the other hand, the final rule was not published by February 1996, as assumed by the first commenter, a charcoal manufacturer. The staff contacted this commenter, who stated that an 18-month effective date would not be a problem if the rule was published by June 1996. With publication of the rule in April 1996, and an 18-month effective date, 26 months from the proposal in August 1995 will have elapsed when the rule goes into effect. By then, many firms are likely to have eliminated or substantially reduced their inventories of preprinted bags in anticipation of these new requirements. This should minimize bag inventory loss by any company, including the commenter who requested a 30-month effective date. The Commission is choosing an 18-month effective date, which will provide sufficient time to deplete most existing noncomplying inventory. This will eliminate or mitigate adverse economic consequences from inventory loss.

Issue: Size of Label for Small Packages

Comment: Smaller labels. A commenter stated that its smallest package of charcoal (2.5 lb., 6 inches wide) should be subject to different minimum label-size requirements (1½ inches high and 5½ inches wide). The commenter indicated that a label that is a minimum of 1½ inches high and 5½ inches wide is needed on this package to keep the label from running over the sides of the package and detracting from its appearance. The commenter recommended that this could be accomplished by moving the signal word panel over the message panel, and by slightly decreasing the size of the lettering, the spacing between the safety messages, and the size of the pictogram.

Response: The Commission agrees that the final rule should allow a label of the size requested on the smallest-size package of charcoal. The Commission believes this will not unduly compromise the label's conspicuousness or legibility, and will allow the consumer to see the entire label on these small bags. However, the proposed configuration of the label should be maintained by simply making the label smaller. Using labels of more than one configuration could cause

confusion for consumers. Accordingly, the final rule should allow the smallest package of charcoal to have a label that is a minimum of 1½ inches high and 5½ inches wide.

Issue: Scope of the Requirement

Comment: Coverage of charcoal for restaurants and other commercial establishments. A comment suggests that packages supplied to restaurants and other commercial establishments should not be excluded from the labeling requirement. The commenter argues that this would put workers and patrons at risk.

Response: The terms of the rule itself do not limit the locations to which it will apply. The Commission intends that all packages of charcoal that are sold at retail and can be regulated under the FHSA will be subject to the revised requirements. However, the FHSA does not grant jurisdiction for the Commission to regulate products used only in commercial establishments.

Under the FHSA, the Commission can, except for toys, regulate only hazardous substances that are "intended, or packaged in a form suitable, for use in the household." FHSA § 2(p), 15 U.S.C. 1261(p). Thus, the only packages of charcoal that would not be subject to the revised labeling requirement are those that are not sold at retail or are, e.g., in packages that are so large they are not intended or suitable for use in the household. If it is impractical for charcoal manufacturers to provide different packages for home and commercial use, the rule will have the effect of ensuring that packages of charcoal used in restaurants and other commercial establishments will have the revised labeling. To the extent that separate packages are produced, the Commission lacks the authority to take actions solely to protect workers in commercial establishments or to take actions to protect consumers from risks that could be adequately reduced by actions taken under the Occupational Safety and Health Act of 1970. 15 U.S.C. 2080(a). However, the Commission is not aware of any incident of CO poisoning from charcoal used in a restaurant or similar establishment.

Comment: Lump charcoal. A commenter stated that perhaps "lump" charcoal should not be subject to the labeling requirement. The commenter speculated that the non-charcoal ingredients in briquet-type charcoal may contribute to the hazard in the reported cases. The commenter also speculates that the victims from less developed countries may be familiar with the safe use of lump charcoal and that the

incidents could be the result of the misleading current labeling regarding ventilation.

Response: Although there are some differences between lump charcoal and charcoal briquets, they both present a serious CO hazard if misused. The CPSC staff performed an experiment comparing the emissions levels of CO production from both lump and briquet charcoal. The experiment showed that similar masses of lump and briquet charcoal produced similar amounts of CO. Although lump charcoal produced about half of the amount of CO as did an equal volume of charcoal briquets, the level of CO production from lump charcoal was still well above that which could produce dangerous concentrations. Thus, there is no basis for excluding lump charcoal from the scope of the amended rule.

Comment: Other carbon-producing products. A commenter stated that the rule should apply to "[a]ny carbon based or carbon producing product whose end use is combustion and is intended for household use * * * includ[ing] wood chips, wood chunks, wood logs, coals, products produced from biomass, etc." The commenter argued that these products also produce CO.

Response: The other products cited by this commenter have not been shown to be used in confined areas. Such use is needed to create the hazard addressed by the revised label. These other products produce enough smoke that it is not feasible to use them in homes, vehicles, tents, or any confined area. Thus, there is no basis for expanding the scope of the rule to include these products.

F. Effective Date

The rule applies only to filled containers of charcoal. Marketers of charcoal, however, have indicated that it is not unusual to have an inventory of printed bags that would take 1 or 2 years to use up. One commenter indicated that it has up to 3 years or more of a supply of preprinted bags in storage. These marketers would prefer that the revised requirement relate to the date the bag or other container was printed, so that all existing inventories could be used. However, it would be impractical for the Commission to determine whether a bag was printed before the effective date when the bag might not be filled for some time after that date. Accordingly, the Commission has decided that the rule will apply to all containers of subject charcoal that are filled on or after the effective date.

In order to address the marketers' concern about inventories, however, the

revised rule will not become effective until sufficient time has passed for the industry to use up most of its current inventory of printed bags. The Commission estimates that this will have occurred by 18 months after the final rule is issued, or November 3, 1997. This also will provide time to revise the plates needed to print the new label, revise any other plates that may be affected on the bag, conduct consumer acceptance tests if needed, print new bags, and incorporate the new bags into production. [15, Tab E] Of course, as the Commission stated at the time it proposed the revised label, manufacturers who order additional printing of bags between now and the effective date of the rule should limit the quantities ordered so that large numbers of bags will not remain unfilled at the effective date and have to be discarded or stickered with the new label.

Some manufacturers may wish to voluntarily use the revised label before the effective date of the final rule. For such firms, the Commission will, until further notice published in the Federal Register, consider labels complying with the final rule as complying with the current requirements of 16 CFR 1500.14(b)(6). (The Commission previously allowed use of the proposed label before the effective date. Specific authority for such use is not needed at this time, because labels that comply with the proposed rule will also comply with the final rule.)

G. Economic and Product Information [6, Tab G; 15, Tab E]

Charcoal is a solid carbon material made from wood subjected to extremely high temperature. It is available in lump, briquet, and powdered forms. To produce charcoal briquets, charcoal is ground, mixed with other ingredients, and compressed. Lump and briquet charcoal is used as a fuel in cooking and in specialized scientific, industrial, and horticultural applications. Recreational cooking consumes approximately 80–90% of charcoal production. Specialized uses account for the remainder.

It is estimated that approximately 824,000 tons of charcoal briquets were sold in 1995. Charcoal briquet sales doubled between 1967 and 1977, were relatively flat during the 1980's, and have risen since 1991. The rising popularity of gas grills may explain the flattening of sales during the 1980's. Charcoal briquet sales account for approximately 80–90% of the annual production of charcoal. Lump charcoal sales are a very small percentage (less than 4%, according to industry sources)

of the annual production of charcoal. Imports comprise less than 1% of the domestic sales of charcoal.

Supermarkets and hardware, discount, drug, and garden supply stores sell charcoal to consumers in a variety of types and packages. Three major types of charcoal briquets are available. One is the standard briquet. Another is the "instant-light" briquet, which is impregnated with a flammable substance. The third is a "flavor additive" briquet which is produced with an aromatic wood such as hickory or mesquite. Standard briquets generally are sold in multi-walled (multi-layered) 5, 10, 20, and 40-pound paper bags. The instant-light briquets are available in similar 2½, 4, 5, 8, and 15-pound bags. Briquets are also available in single-use, wax impregnated, "light-the-bag" packages. Lump charcoal, which is pure charcoal, is marketed as a natural product and is available in packaging similar to briquets. Charcoal also may be sold in other sizes of bags or in corrugated boxes, depending upon marketing considerations. Based on an informal study of the market in and around Washington, D.C., the retail price of charcoal ranges from approximately \$.25 to \$.75 per pound, depending on package size, although the retail price of some specialty charcoals may be higher.

Approximately 10 companies manufacture lump and briquet charcoal in the United States. Several companies import charcoal. According to industry representatives, the top five domestic charcoal manufacturers control an estimated 90–95% of the market, with the leading company controlling approximately 50%. Manufacturers provide lump charcoal and charcoal briquets under an estimated 250 different brand names, most of which are private or "store" brands. Relatively few are nationally or regionally marketed brands.

According to the Barbecue Industry Association ("BIA"), 71 million households owned barbecue grills in 1993. [5] In addition, the BIA estimates that 58% of grill owners (41 million households) own a charcoal grill. The peak season for cooking on a grill is from the start of Daylight Savings Time through Labor Day. However, 52% of grills are used throughout the year. The number of "barbecuing events" each year (including gas and charcoal fuels) more than doubled over a 10-year period, with an estimated 2.6 billion occurrences in 1993.

According to a BIA-sponsored National Family Opinion survey conducted in the summer of 1993, gas grill owners indicated that they use

their grill about twice as often as charcoal grill owners. [5] This ratio may not apply year round, since there may be a greater relative use of gas grills in the winter. If it is assumed that this 2:1 ratio applies year round, however, the number of barbecuing events attributed to charcoal is approximately 870 million in 1993. This results in an estimated exposure of 21 such events per year per household owning a charcoal grill.

It is estimated that approximately 824,000 tons of charcoal briquets were sold in the U.S. in 1995. [15, Tab E] This amounts to about 1.6 billion pounds of briquets, or 160 million bags with an average weight of 10 pounds. In 1993, there were an estimated 870 million charcoal barbecuing events. Dividing the approximately 809,000 tons of charcoal briquets sold that year by the number of events, the average amount of charcoal used was about 1.9 pounds per event. If each household that owns a charcoal grill barbecues 21 times a year, each such household uses 40 pounds of charcoal briquets per year, or the equivalent of four 10-lb bags.

As noted above, there are approximately 28 deaths and 300 CO-related emergency room-treated injuries associated with the use of charcoal each year. *Id.* Thus, there was approximately one death for every 1.5 million households owning charcoal grills (or 0.68 deaths per million such households). Also, there was one CO injury for every 136,667 households owning charcoal grills (or 7.3 injuries per million such households). Additionally, the estimated 160 million bags of charcoal briquets sold in 1995 were associated with approximately one death for every 5.7 million charcoal briquet bags (0.18 deaths per million bags). Further, there was one CO injury for about every 0.5 million bags (1.9 injuries per million bags).

The Commission estimates that changing the labeling requirements for packages of charcoal has the potential for substantial benefits to society. Based on the CPSC's injury cost model, the average annual societal cost of an injury from charcoal-related CO poisoning is approximately \$10,000. The annual societal cost of these injuries is approximately \$3 million, given the estimated 300 such injuries per year.

Additionally, there are an estimated 28 deaths per year from charcoal-related CO poisonings. Assuming a statistical value of life of \$5 million, these injuries and deaths cost society about \$143 million annually. The avoidance of these injuries and deaths represents the maximum potential benefits to society of the new labeling requirements.

If the Commission had mandated the "optimum" warning label described above, which includes additional color requirements, the costs to industry of changing labels would have included both one-time, start-up expenses and continuous, ongoing expenses. Start-up expenses include the cost of new printing equipment, printing plates, artwork, and negatives. Ongoing expenses would relate to any additional colors used in the warning label.

Industry representatives indicated that the aggregate start-up expenses for the "optimum" label could have amounted to as much as \$6 million. Further, the ongoing costs for the added colors that label would have required could have been around \$4 million per year.

However, the Commission eased the current requirements for the label placement on bags of charcoal, and did not mandate additional colors. This will allow continued use of current printing equipment. Therefore, the costs of the revision that is being adopted are estimated to be no more than \$1 million in start-up expenses, with no ongoing expenses.

Besides the costs of making changes to charcoal bags, loss of bag stocks would be incurred if the effective date does not allow for a substantial reduction in old inventory of unfilled bags. As discussed above, the effective date of the revised labeling rule will be 18 months after publication of the final rule. This should allow almost all firms to use up existing inventories of printed bags. As the Commission stated in the proposal, "manufacturers who order additional printing of bags between now and the effective date of the rule should limit the quantities ordered so that large numbers of bags will not have to be discarded or stickered with the new label." 60 FR at 40790. Packagers who followed that advice will in effect have had 26 months to deplete their inventories of preprinted bags.

Only one industry member has indicated that it has more than 2 years inventory. If any preprinted bags remain unfilled at the effective date, the costs of not using these bags and of discarding them are not expected to be significant.

No estimates are available of the effectiveness of the revised label in reducing charcoal-related CO injuries and deaths. However, if the one-time cost to industry of revising the label (\$1 million) is viewed as an "investment" for saving a life in the future, the benefits of the rule would exceed its costs if the label revisions avert one death within 32 years of the change. (This assumes a value of \$5 million for saving a statistical life and a 5%

discount rate. A 10% discount rate would produce positive net benefits if the death was averted during the next 16 years.) Given the present death rate of 28 per year, it is reasonable to believe that such levels of effectiveness will be achieved.

H. Regulatory Flexibility Act Certification

When an agency undertakes a rulemaking proceeding, the Regulatory Flexibility Act, 5 U.S.C. 601 *et seq.*, generally requires the agency to prepare initial and final regulatory flexibility analyses describing the impact of the rule on small businesses and other small entities. The purpose of the Regulatory Flexibility Act, as stated in section 2(b) (5 U.S.C. 602 note), is to require agencies, consistent with their objectives, to fit the requirements of regulations to the scale of the businesses, organizations, and governmental jurisdictions subject to the regulations. Section 605 of the Act provides that an agency is not required to prepare a regulatory flexibility analysis if the head of an agency certifies that the rule will not have a significant economic impact on a substantial number of small entities.

The Commission's Directorate for Economic Analysis examined the potential effects of the revised rule on small entities. [15, Tab E] Businesses affected by label-change costs may include charcoal manufacturers (approximately 10 firms), bag suppliers, and firms that own a charcoal brand name (proprietary or private label brands). Industry representatives predict that the bulk of the costs of developing new labels will fall initially on the charcoal manufacturers. As noted above, these costs may include those associated with the development or purchase of new printing plates, artwork, and negatives.

Several private label manufacturers have indicated that they will be disproportionately affected by a label change. These firms package charcoal under a large number of brand names, which may require hundreds of plate changes. In the notice of proposed rulemaking, the Commission proposed to ease the margin requirements of the current regulation (i.e., allowing the label to be at least 1 inch, instead of at least 2 inches, below the seam of the bag) and proposed continued use of contrasting colors as opposed to use of ANSI colors, which were originally considered. Easing of the margin requirements and use of contrasting colors will substantially reduce the cost of the label change. The costs may be further mitigated if the firms are able to

pass them through to their customers or if their plates are near the end of their service life. Costs for small firms are not expected to be significant, due to the relatively small number of brands handled by such firms.

The rule should not require firms to buy new printing presses. Most manufacturers will have enough time to use up existing supplies of printed bags. Bags filled with charcoal before the effective date are not subject to the revised requirements.

Accordingly, for the reasons given above, the Commission certifies that the rule will not have significant economic effects on a substantial number of small entities.

I. Environmental Considerations

Pursuant to the National Environmental Policy Act, and in accordance with the Council on Environmental Quality regulations and CPSC's procedures for environmental review, the Commission has assessed the possible environmental effects associated with the rule to revise the warning labels for packages of charcoal. [15, Tab E] Analysis of the potential impact of this rule indicates that it will have no significant effects on the environment since the effective date enables almost all firms to deplete existing stocks of empty bags. (Some firms have indicated that, depending on the time of the year, they may have as much as a 2-year supply of filled and empty bags.) As previously noted, bags filled before the effective date will not be affected by the revised rule. Even if some old inventory of bags remains, as one commenter contends, the environmental consequences are expected to be insignificant.

Therefore, because the revised rule would have no significant impact on the environment, neither an environmental assessment nor an environmental impact statement is required.

J. Conclusion

For the reasons discussed above, the Commission concludes that the labeling required by section 2(p)(1) of the FHSA for packages of charcoal is not adequate for the protection of the public health and safety, in view of the special hazard of CO poisoning presented by using charcoal in a confined area. The Commission finds that the additional label requirements in the revised label issued below are necessary for the protection of the public health and safety. These requirements are issued under the authority of section 3(b) of the FHSA, 15 U.S.C. 1262(b).

Effective date: The final rule is effective November 3, 1997.

List of Subjects in 16 CFR Part 1500

Consumer protection, Hazardous materials, Hazardous substances, Imports, Infants and children, Labeling, Law Enforcement, Toys.

For the reasons given above, the Commission amends 16 CFR part 1500 as follows:

PART 1500—HAZARDOUS SUBSTANCES AND ARTICLES; ADMINISTRATION AND ENFORCEMENT REGULATIONS

1. The authority citation for part 1500 is revised to read as follows:

Authority: 15 U.S.C. 1261–1278.

2. Section 1500.14 is amended by redesignating paragraphs (b)(6) (i) and (ii) as paragraphs (b)(6)(i) (A) and (B).

3. In § 1500.14, newly designated paragraph (b)(6)(i)(A) is amended by Nonvenember 3, 1997 after “products”.

4. Section 1500.14 is further amended in newly designated paragraph (b)(6)(i)(B), by adding “packaged before November 3, 1997 after “charcoal”.

5. Section 1500.14 is further amended by adding a new paragraph (b)(6)(ii) to read as follows:

§ 1500.14 Products requiring special labeling under section 3(b) of the act.

* * * * *

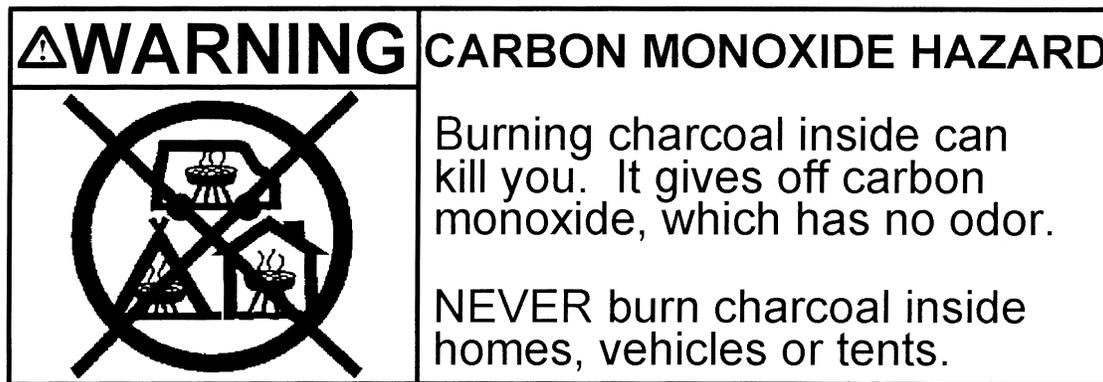
(b) * * *

(6) * * *

(i) * * *

(ii)(A) Because inhalation of the carbon monoxide produced by burning charcoal indoors or in confined areas can cause serious injury or death, containers of such products packaged on or after [insert date that is 18 months after publication] shall bear the following bordered label.

BILLING CODE 6355-01-P



BILLING CODE 6355-01-C

(B) Except as provided in paragraph (b)(6)(ii)(C) of this section, the following requirements apply to bags of charcoal subject to paragraph (b)(6)(ii)(A) of this section. The label specified in paragraph (b)(6)(ii)(A) of this section shall appear within a heavy borderline, in a color sharply contrasting to that of the background, on both the front and back panels in the upper 25 percent of the panels of the bag, and with the outer edge of the borderline at least 2.54 cm (1 inch) below the seam and at least 2.54 cm (1 inch) above any other reading material or design elements. The signal word “WARNING” shall be in bold capital letters in at least 7.14 mm ($\frac{9}{32}$ inch) type. The remaining text of the warning statement shall be in at least 4.763 mm ($\frac{3}{16}$ inch) type. The phrase “CARBON MONOXIDE HAZARD” shall be in bold. This phrase and the word “NEVER” shall be in all capital letters. The lettering shall have a strokewidth-to-height ratio of 1:6 to 1:8. The label shall be at least 50.8 mm (2 inches) high and 147.5 mm ($5\frac{3}{16}$ inches) wide. The label’s lettering, spacing between the bottom of the letters of one line and the top of the letter of the next line, and pictogram shall have the size relation to each other and to the remainder of the

label shown in paragraph (b)(6)(ii)(A) of this section.

(C) For bags of charcoal subject to paragraph (b)(6)(ii)(A) of this section that are 6 inches or less wide, the minimum label height may be reduced to 38 mm (1.5 inches) and the minimum width may be reduced to 139.7 mm (5.5 inches). The signal word “WARNING” shall be in capital letters in at least 6.32 mm (0.249 inch) type. The remaining text of the warning shall be in at least 4.23 mm (0.166 inch) type. All other requirements of paragraphs 6(b)(ii) (A) and (B) of this section shall apply to these bags.

Dated: April 29, 1996.

Sadye E. Dunn,
Secretary, Consumer Product Safety
Commission.

Appendix 1—List of Relevant Documents

(Note: This list of relevant documents will not be printed in the Code of Federal Regulations.)

- Petition HP 91-1 from Barbara Mauk.
- Letter to Barbara Mauk from Sadye E. Dunn, CPSC, January 28, 1993.
- Hampson, N.B. et al., JAMA (January 5, 1994).
- Cost information from industry.
 - The Clorox Company (Kingsford), P.O. Box 493, Pleasanton, CA 94566.

b. King and Spalding, representing Royal Oak Enterprises, Inc., 1730 Pennsylvania Ave. N.W., Washington, D.C. 20006.

c. Hickory Specialties, Inc., P.O. Box 1669, Brentwood, TN 37024.

5. Barbecue Industry Association survey. Barbecue Industry Association, 710 East Ogden, Suite 113, Naperville, IL 60563.

6. Briefing package dated July 6, 1995, with Tabs A-H.

TAB A—Background Information on Charcoal Labeling in Briefing Package memo dated May 18, 1994, accompanied by FDA’s Notices of Proposed and Final Rulemaking dated September 2, 1970, and August 11, 1971, and Petition for Amending Labeling Requirements for Charcoal Intended for Household Use, dated October 12, 1990.

TAB B—Memorandum from Lauren E. Burton of Directorate for Health Sciences to Sharon R. White, entitled “Carbon Monoxide Toxicity Review for the Charcoal Labeling Project,” dated March 8, 1994.

TAB C—Memorandum from Leonard Schachter, Directorate for Epidemiology, Division of Hazard Analysis to Sharon R. White, entitled “Charcoal Labeling Project,” dated December 12, 1994.

TAB D—Memorandum from Charles M. Jacobson, Office of Compliance and Enforcement to Susan E. Womble, entitled “Compliance Experience with Current FHSA Labeling Requirements for Charcoal Briquets,” dated April 30, 1992.

TAB E—1. Memorandum from Sharon R. White of Directorate for Epidemiology,

Division of Human Factors, to The File entitled, "Proposed Revisions to Labeling Requirements for Packages of Charcoal" dated June 15, 1995.

2. Memorandum from George Sweet of Directorate for Epidemiology, Division of Human Factors to Sharon R. White entitled, "Pictogram Testing for Warning Labels on Charcoal Bags," dated June 12, 1995.

TAB F—Logs of Industry Meetings on (1) April 22, 1994, and (2) April 13, 1995.

TAB G—Memorandum from Mary F. Donaldson of Directorate for Economic Analysis, to Sharon R. White, entitled "Economic Analysis of a Revision to Charcoal Labeling," dated June 22, 1995.

TAB H—Draft Federal Register Notice—Notice of Proposed Rulemaking.

7. Letter from James C. Stephen, President, Weber-Stephen Products Co., to Sharon R. White, CPSC, May 11, 1995.

8. Letter from Harleigh Ewell, CPSC, to James C. Stephen, President, Weber-Stephen Products Co., June 29, 1994.

9. Woodson, W.; Tillman, B.; and Tillman, P., 1992.

10. ANSI Z535.3—1991, American National Standard, Criteria for Safety Symbols.

11. Perry, E., and Neily, M. (1985). *Burning Charcoal Briquettes in a Fireplace*. U.S. Consumer Product Safety Commission, Washington, DC.

12. Letter from Leonard S. Gryn, Executive Vice President, Weber-Stephen Products Co., to Harleigh Ewell, CPSC, July 5, 1995.

13. Notice of Proposed Rulemaking, 60 FR 40785 (August 10, 1995).

14. Comments on proposed rule, Nos. CH96-1-1 through CH96-1-7.

15. Briefing package, consisting of a briefing memorandum from Sharon White, Project Manager, to the Commission, March ____, 1996, and Tabs B and D-E:

TAB B—Memorandum from Leonard Schachter, CPSC Directorate for Epidemiology and Health Sciences, to Sharon R. White, entitled "Deaths and Injuries Associated with Charcoal," dated November 28, 1995.

TAB C—1. Memorandum from Sharon R. White, CPSC Directorate for Engineering Sciences, to File, entitled "Responses to Comments on the Proposed Rule on the Labeling Requirements for Packages of Charcoal," dated February 28, 1996.

2. Memorandum from Mary F. Donaldson, CPSC Directorate for Economic Analysis, to Sharon R. White, entitled "Response to Comments, Proposed Rule Amending Labeling on Packages of Charcoal," dated February 28, 1996.

3. Memorandum from Rikki Khanna, CPSC Directorate for Engineering Sciences, to Sharon R. White, entitled "Responses to Comment on Proposed Rule for Labeling of Retail Containers of Charcoal (REF: CH96-1-3)," dated February 9, 1996.

4. Memorandum from Mary F. Toro of the Office of Compliance, Division of Regulatory Management, entitled *Charcoal Labeling Package—Comments on the NPR* dated December 13, 1995.

5. Memorandum from Kimberly Long of Directorate for Epidemiology and Health Sciences to Sharon R. White, entitled

"Comments to Proposed Rule Amending Package Labeling of Charcoal, FR., Vol. 60, No. 154, August 10, 1995, pp. 40785," dated December 6, 1995.

TAB E—Memorandum from Mary F. Donaldson, CPSC Directorate for Economic Analysis, to Sharon R. White, entitled "Economic Analysis of a Revision to Charcoal Labeling," dated December 8, 1995.

16. Memorandum from Mary Ann Danello, Ph.D., Associate Executive Director for Epidemiology and Health Sciences, "Corrected Response to Comments for Proposed Rule Amending Package Labeling of Charcoal, FR, Vol. 60, No. 154, August 10, 1995, pp. 4078ff," dated April 3, 1996.

[FR Doc. 96-10978 Filed 5-02-96; 8:45 am]

BILLING CODE 6355-01-P

COMMODITY FUTURES TRADING COMMISSION

17 CFR Parts 1, 5 and 31

Fees for Applications for Contract Market Designation, Leverage Commodity Registration and Registered Futures Association and Exchange Rule Enforcement and Financial Reviews

AGENCY: Commodity Futures Trading Commission.

ACTION: Final schedule of fees.

SUMMARY: The Commission periodically adjusts fees charged for certain program services to assure that they accurately reflect current Commission costs. In this regard, the staff recently reviewed the Commission's actual costs of processing applications for contract market designation (17 CFR part 5, appendix B), audits of leverage transaction merchants (17 CFR part 31, appendix B) and registered futures association and exchange rule enforcement and financial reviews (17 CFR part 1, appendix B). The following fee schedule for fiscal 1996 reflects the actual costs to the Commission of providing those services during fiscal years 1993, 1994 and 1995. Accordingly, the Commission will change the fees as follows: Applications for contract market designation for a futures contract will be reduced from \$9,600 to \$8,300; contract market designation for an option contract will be increased from \$1,600 to \$1,800; contract markets that simultaneously submit designation applications for a futures and an option on that futures contract will be reduced from a combined fee of \$10,000 for both to \$9,200 for both; and leverage commodity registration will be maintained at \$4,500. In addition, the Commission will publish the schedule

of fees for registered futures association and exchange rule enforcement and financial reviews.

EFFECTIVE DATE: Contract Market Designation and Leverage Commodity Registration May 3, 1996. Registered Futures Association and Exchange Rule Enforcement and Financial Reviews July 2, 1996.

FOR FURTHER INFORMATION CONTACT: Gerald P. Smith, Special Assistant to the Executive Director, Office of the Executive Director, Commodity Futures Trading Commission, Three Lafayette Centre, 1155 21st Street, NW., Washington, DC 20581, telephone number 202-418-5156.

SUPPLEMENTARY INFORMATION: The Commission periodically reviews the actual costs of providing services for which fees are charged and adjusts these fees accordingly. In connection with its most recent review, the Commission has determined that fees for contract market designations should be adjusted. Also, this release announces the fiscal 1996 schedule of fees for registered futures association and exchange rule enforcement and financial reviews and maintains leverage commodity registration fees.

Background Information

I. Computation of Fees

The Commission has established fees for certain activities and functions performed by the Commission.¹ In calculating the actual cost of processing applications for contract market designation, registering leverage commodities, and performing registered futures association and exchange rule enforcement and financial reviews, the Commission takes into account personnel costs (direct costs), and benefits and administrative costs (overhead costs).

The Commission first determines personnel costs by extracting data from the agency's Management Accounting Structured Code (MASC) system. Employees of the Commission record the time spent on each project under the MASC system. The Commission then adds an overhead factor that is made up of two components—benefits and general and administrative costs. Benefits, which include retirement, insurance and leave, are based on a government-wide standard established by the Office of Management and Budget in Circular A-76. General and administrative costs include the

¹ See Section 237 of the Futures Trading Act of 1982 (7 U.S.C. 16a) and 31 U.S.C. 9701. For a broader discussion of the history of Commission fees, see 52 FR 46070 (Dec. 4, 1987).