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Proposed Interim Rule on Solid Wood Packing Material from China

Environmental Assessment
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I. Need for Proposal

A. Introduction

North America has abundant forest resources. Most logs and lumber imported into the United States have historically been limited to those from the forests of Canada. Increased trade has resulted in more frequent and greater quantities of logs, lumber, and solid wood packing material entering the United States from other parts of the world. Various plant pests can occur on or in these unfinished wood products. Accidental and intentional introductions of some forest pests into the United States have resulted in decreases in the quality and quantity of available wood products. Protection of the forest resources of the United States from damage by foreign pest species is part of the mission of the U.S. Department of Agriculture, Animal and Plant Health Inspection Service (APHIS) and exclusion of those pest species is the most effective method of preventing the losses associated with new pest infestations.

Forest ecosystem diversity, function, and productivity have been dramatically altered by the introduction of exotic insects and pathogens. More than 20 exotic fungal pathogens and 360 exotic insects now attack woody trees and shrubs in North America (Haack and Bylar, 1993). Unrestricted (and even restricted) importation of logs, lumber, and other unmanufactured wood articles into the United States may pose substantial hazards of introducing plant pests and pathogens detrimental to agriculture and to natural, cultivated, and urban forest resources.

B. Purpose and Need

Increased trade and the resultant increased opportunities for invasion by alien agricultural pests have placed the United States and its agricultural economies at substantially increased risk in recent years. In particular, a number of infestations and interceptions of exotic forest wood boring insects have been associated with solid wood packing material (SWPM) from the People's Republic of China. The regulations define solid wood packing material in § 319.40-1 as "Wood packing materials other than loose wood packing materials, used or for use with cargo to prevent damage, including, but not limited to, dunnage, crating, pallets, packing blocks, drums, cases, and skids." Outbreaks of the Asian longhorned beetle (*Anoplophora glabripennis*), a destructive pest of maple and other hardwoods, occurred in Brooklyn, New York, in 1996, and in Chicago, Illinois, in 1998. In addition, four genera of wood borers (*Anoplophora*,

Ceresium, *Hesperophanes*, and *Monochamus*) have been intercepted in shipments from China that were delivered to warehouses in 11 States. The effects of those outbreaks and interceptions, and of control and regulatory measures to deal with them have been costly from environmental and economic perspectives. APHIS analyzed the pest risk of the potential introduction of these pests in a pest risk assessment completed on August 31, 1998 (USDA, APHIS 1998b).

APHIS has responsibility for taking actions to exclude, eradicate and/or control invasive alien agricultural pests. APHIS' authority to exclude such pests is based upon the Plant Quarantine Act (7 United States Code (U.S.C.) 151-165, 167) which authorizes the Secretary of Agriculture to prohibit or restrict the entry into the United States of plant products from countries where there exist injurious diseases or insects new to or not theretofore widely prevalent or distributed within and throughout the United States. APHIS' authority to eradicate and/or control pests is based upon the Organic Act (7 U.S.C. 147a), which authorizes the Secretary of Agriculture to carry out operations to eradicate insect pests, and the Federal Plant Pest Act (7 U.S.C. 150dd), which authorizes the Secretary of Agriculture to use emergency measures to prevent dissemination of plant pests new to or not widely distributed throughout the United States. APHIS has been delegated authority to administer these statutes and has promulgated Foreign Quarantine Regulations (7 CFR 319), which regulate the import of commodities.

No existing regulations are directed specifically at China for the regulation of SWPM . Section 319.40-3 (Foreign Quarantine Regulations) imposes certain requirements on SWPM imported from all countries. If the SWPM is not free of bark, it must be heat treated, fumigated, or treated with preservatives in accordance with the regulations prior to arrival. Even if the SWPM is free of bark, the SWPM must be heat treated, fumigated, or treated with preservatives in accordance with the regulations prior to arrival if it is used to pack regulated wood commodities in transit. However, SWPM used to move regulated wood commodities need not be heat treated, fumigated, or treated with preservatives if the SWPM meets all the importation and entry conditions required for the regulated wood commodities the SWPM is used to move. The least restrictive requirement for importing SWPM occurs when the SWPM is used to move nonregulated articles (articles that are not wood, or that are highly processed wood excluded from regulation). When SWPM is used to move nonregulated articles, the SWPM must be totally free from bark and apparently free from live plant pests.

Inspection of all shipments with SWPM at the port of first arrival is very labor intensive and virtually impossible for the size and number of shipments. Inspectors have documented many instances where imported SWPM from China was found to be infested or where infestations were traced back to SWPM importations from China. The compliance of Chinese shipments with the current regulatory requirements for SWPM continues to be very poor, with many shipments arriving with bark and obvious signs of live pests on SWPM. Because of the increasing number of infestations and regulatory incidents and the ineffectiveness of existing regulations in countering the pest threat from China, APHIS is proposing an interim rule that will regulate SWPM imported from China, requiring treatment and certification of Chinese SWPM before it departs China for the United States.

The proposed interim rule of SWPM from China relates primarily to the increased risk demonstrated by many recent incidents where exotic pests were detected in SWPM from China, but it is clear that other foreign origins may also represent increased pest risk. This is, therefore, anticipated to be the first step toward better exclusion of pest risks from SWPM. APHIS is working on a revision of the regulations for importation of SWPM from all foreign countries to improve exclusion procedures and better protect U.S. forest resources. However, the increased frequency of recent interceptions and introductions of plant pests from China has elevated the priority for regulation of SWPM from China and made the need more urgent for the proposed interim rule.

This environmental assessment has been designed to satisfy the provisions of the National Environmental Policy Act of 1969 (42 U.S.C. 4321-4327 (NEPA)), its implementing regulations, and Executive Order 12114, "Environmental Effects Abroad of Major Federal Actions" to the extent applicable.

II. Alternatives

APHIS considered four alternatives to respond to this problem: (1) no action (continuing the existing permitting process for SWPM);
(2) treatment and certification in China (the preferred action);
(3) certification/treatment combination; and (4) prohibiting entry of SWPM. Each is described briefly in this section and the potential impacts of each are considered in the following section.

A. No Action

There are two possible interpretations of no action: no change in the regulation (the status quo) or no Federal action. Each was considered by APHIS.

1. No Change in the Regulation

The no action alternative would mean that APHIS would not change its existing regulation which permits the importation of SWPM, as set forth in 7 CFR 319.40-3. The need for inspections of non-regulated articles for pests associated with the SWPM would be expected to increase, commensurate with anticipated increases in trade and resulting increases in pest risk.

The existing regulation has not provided the necessary degree of protection from wood boring pest species associated with SWPM in Chinese importations. Inspections by APHIS employees from August 23, 1995, to March 15, 1998, revealed 132 shipments containing SWPM from China that were infested with exotic forest pests. These shipments were either treated, re-exported, or destroyed. There were additional reports of bark present on SWPM of shipments that clearly indicate a lack of compliance and increased pest risk. The frequency of interception of infested commodities with SWPM from China makes it likely that continuing the status quo would be ineffective at exclusion of the wood borers and other forest pests that the regulation was designed to protect against.

Ultimately, it would be expected that those forest pests present in the SWPM from China would be introduced into the United States. Their movement from the site of introduction would be expected to result in increasingly greater damage to forest ecosystem commensurate with the spread. The response to this increased damage would be expected to include greater uncoordinated applications of pesticides to control pest damage and more destruction of forest, shade, and ornamental trees. The potential environmental consequences of this alternative are anticipated to be greater than the other alternatives.

2. No Federal Action

Another interpretation of no action as “no Federal action” (no quarantine or effort to prevent the introduction of the pests) was rejected by APHIS which has the responsibility for the eradication and exclusion of exotic agricultural pests. This interpretation likely would be considered unacceptable to the public who would have to bear the economic and environmental impacts that would result from a lack of action. This

approach would enhance the likelihood of pest introduction and the potential for damage to forest ecosystems from pest introductions.

B. Treatment and Certification in China (Preferred Action)

The treatment and certification alternative would involve the implementation of additional phytosanitary measures not included in the existing requirements for SWPM from China. Through an interim rule, with a 90-day phase-in period, APHIS would require that all SWPM associated with cargo from China be accompanied by official certification from the Chinese Government stating that the material was heat treated, fumigated, or treated with preservatives prior to shipment to the United States. If no SWPM is associated with arriving cargo, then an exporter statement would be required that states that the shipment contains no SWPM.

Alternative packing material such as plastic, metal, and loose wood packing material could be used in lieu of treatment to qualify the shipment for certification. SWPM arriving without official certification of treatment would be prohibited entry into the United States, re-exported, or seized and destroyed. The potential environmental consequences of this alternative relate primarily to pesticide applications and are anticipated to be less than the no action alternative, but greater than the prohibition alternative.

1. Heat Treatment

The heat treatment of SWPM is one available method which eliminates pest risk and allows import of shipments with SWPM to the United States. Heat treatments must be performed only at a facility in China approved by APHIS or an inspector authorized by the Administrator and the national government of the People's Republic of China. The operation of the facility must comply with the standards set by APHIS to ensure proper treatment and elimination of pest risk. Heat treatment procedures may employ steam, hot water, kilns, exposure to microwave energy, or any other method (e.g., the hot water and steam techniques used in veneer production) that raises the temperature of the center of the treated article to at least 71.1 °C for at least 75 minutes. Heat treatment in conjunction with moisture has been shown to increase the susceptibility of living pests to thermal killing because it more rapidly denatures proteins than heat alone (USDA, APHIS, 1991). Monitoring of the core temperatures to ensure effective treatment is done by placing thermocouples in holes drilled to the centers of a representative sample of wood. The regulated shipments that have been heat treated must be stored, handled, or

safeguarded in a manner which eliminates the possibility of any reinfestation of the regulated article by plant pest prior to arrival in the United States.

Approved heat treatment and proper handling of the regulated articles eliminate pest risk and have minimal environmental consequences. The issues related to heat treatment were analyzed previously for importation of logs and lumber in an EIS (USDA, APHIS, 1994). That document and its findings are incorporated by reference as part of this environmental assessment. The heat treatment method, however, is costly to set up, the initial costs per unit treated would be expected to be high, and it is questionable whether the necessary degree of control over the procedures could be exerted by Chinese government authorities to ensure success. Although APHIS is likely to send inspectors to China to approve heat treatment facilities that meet agency requirements for efficacy and safety standards, the required number of heat treatments for SWPM from China makes it likely that compliance monitoring of those approved treatment facilities by APHIS inspectors will be rather infrequent. Mass treatment of large amounts of SWPM would make it more cost-effective, but it is anticipated that this treatment option will have minimal application until the need for a heat treatment facility is clearly evident to the exporters.

2. Fumigation

Most fumigations of wood products historically have involved treatments with methyl bromide due to convenience, cost, availability, ease of handling, timely completion of treatment, and good efficacy. In addition, formulations of sulfuryl fluoride and phosphene have been used, but their applications have been more limited. Sulfuryl fluoride has been difficult to handle effectively and safely. Phosphene works well for small enclosed areas, but is less efficient for larger treatments. However, the required length of treatment for good penetration and efficacy of these compounds is generally greater than for methyl bromide. Each of the fumigation treatments is described in greater detail below.

The regulated shipments that have been fumigated must be stored, handled, or safeguarded in a manner which eliminates the possibility of any reinfestation of the regulated article by plant pest prior to arrival in the United States. Approved fumigation and proper handling of the regulated articles eliminate pest risk and pose no direct risks to personnel involved in the treatment or nontarget species. There are, however, potential impacts of methyl bromide on the ozone layer and these are discussed in detail in the environmental consequences section. Treatment of SWPM by fumigation does not have the elevated starting costs of heat treatment and

it is anticipated that the majority of the shippers would select this method of treatment.

Voluntary fumigation treatments (primarily methyl bromide and phosphene) by some shippers in China have been made recently to assist in the more timely movement of their shipments. APHIS port inspectors reviewed their inspections of these shipments with SWPM. Of the 30% of the shipments reported by the shippers to have been fumigated and that arrived at a major port, inspectors found live, quarantine pests in 1% of those shipments. Proper conduct of fumigations with methyl bromide or phosphene would be expected to result in virtually no live insects present in the fumigated container. Although not all fumigated shipments were inspected and inspections do not always reveal infestations, extrapolation of these rates of compliance (or noncompliance) for shipments to all regulated loads would be expected to result in an overall potential rate of infestation of approximately 3-4%.

It is uncertain whether the limited resources of the Chinese National Plant Protection Organizations would be able to greatly increase compliance of shippers with the APHIS import regulations for commodities packed with SWPM. Although APHIS is likely to send inspectors to China to approve fumigation treatment facilities that meet agency requirements for efficacy and safety standards, the required number of fumigations for all SWPM from China makes it likely that compliance monitoring of those approved treatment facilities by APHIS inspectors will be rather infrequent. Based upon this, it is anticipated that some forest pests (e.g., *Anoplophora*, *Ceresium*, *Hesperophanes*, and *Monochamus* species) present in the SWPM from China could still be transported live to the United States, but the frequency of introduction and the number of pests would be expected to be much less than under the current regulations (no action alternative).

a. Methyl Bromide

Methyl bromide fumigations of shipments with SWPM are specified by the ambient air temperature and type of packing material. Fumigations are conducted by procedures described in section T312 (for oak packing material) and section T404(b) (for other SWPM) of the APHIS Treatment Manual. Fumigations conducted with methyl bromide according to section T312 (oak) must have an initial concentration of 240 g/m^3 (grams per cubic meter) at 5°C and a concentration-time product of at least 17,280 gram-hours calculated on the initial methyl bromide concentration. Depending on the packing material, fumigations conducted with methyl

bromide according to section T404 must have an initial concentration of either 120 g/m^3 or 48 g/m^3 at 5°C and a concentration-time product of at least 17,280 or 1,920 gram-hours calculated on the initial methyl bromide concentration.

b. Alternatives to Methyl Bromide

Sulfuryl fluoride and phosphene fumigations of shipments with SWPM are specified by the ambient air temperature. Fumigations are conducted by procedures described in section T404(b)(2) and T404(b)(3) of the APHIS Treatment Manual. Fumigations conducted with sulfuryl fluoride must have an initial concentration of 48 g/m^3 at 5°C and a concentration-time product of at least 5,472 gram-hours calculated on the initial sulfuryl fluoride concentration. Fumigations conducted with phosphine must have an initial concentration of either 225 g/m^3 at 5°C and a concentration-time product of at least 16,200 gram-hours calculated on the initial phosphine concentration.

3. Preservative Treatments

The United States Environmental Protection Agency (EPA) has approved the registration of a number of treatments for wood pallets and SWPM. This includes applications of various chemicals such as creosote, chlorpyrifos, and oxine-copper to the surface of the wood. These treatments are authorized for use to treat SWPM for shipments to the United States. Proper adherence to label instructions is required to prevent adverse health effects to the applicators and those individuals involved in the shipping and handling processes. Compliance with the label ensures that environmental consequences are minimal to human health and nontarget species.

4. Alternative Packing Techniques

Alternative packing techniques and use of material other than SWPM can be used to certify that there is no pest risk in a shipment. Such shipments would be required to have an exporter statement that states that the shipment contains no SWPM. Structural substitutes for SWPM such as plastic, metal, and loose wood packing material could be used. Tight placement of shipments in a manner that eliminates the need for packing material could have some applications. This option enables the shipper to transport commodities to the United States without the treatments needed for SWPM. The cost, applicability to particular cargoes, and availability of these other packing materials is expected to determine the feasibility for different shipments. Use of these packing materials and certification eliminates pest risk and has minimal environmental consequences. The need of shippers to manufacture or obtain substitute packing materials

could result in some environmental impacts, dependent upon the potential impacts of the manufacturing process.

C. Certification/Treatment Combination

Like the treatment and certification alternative, this action would involve the implementation of phytosanitary measures in addition to the existing permit requirements for SWPM from China. This alternative would be to inspect SWPM from China at the port of arrival in the United States, and to order treatment (if necessary) after arrival in the United States. Under this alternative, exporters could also treat their SWPM prior to departure from China if they expect treatment would be necessary. This alternative would allow some shipments to be cleared by inspection upon arrival, with no need for treatment. However, the pests found on inspection would probably require that most of the SWPM from China be treated. This alternative probably would not induce most exporters to treat SWPM from China prior to departure and, instead, would result in a vastly increased demand for treatment (especially methyl bromide fumigation) at ports of arrival in the United States.

Inspection and compliance agreements would be applicable under certain conditions. During the 90 day phase-in period for this action, additional inspectors would be deployed to the west coast ports which receive the bulk of the cargo from China. These inspectors would be directed to concentrate their efforts on cargo that was previously found infested. The cargo requiring treatment at ports in the United States for this alternative would be expected to pose increased risk of pest introduction to this country over the alternative requiring mandatory treatment abroad. The potential environmental consequences of this alternative related to program applications are anticipated to be comparable to the Treatment and Certification in China alternative.

However, the overall impacts are expected to be greater due to the elevated risk of introduction of these pest species to the United States by this alternative over the Treatment and Certification in China alternative. If no SWPM is associated with arriving cargo, then an exporter statement would be required that states that the shipment contains no SWPM. Alternative packing material such as plastic, metal, and loose wood packing materials could be used.

1. Treatments

The treatments for this alternative would be comparable to those for the preferred action, but the location of heat treatment or fumigation could be at ports in the United States; however, if a shipment is infested,

preservative treatments are not an option in the United States. Shippers could also elect to re-export their cargo or have it destroyed at (or near, if safeguarded) the United States port rather than undergo treatment, but it is expected that most shippers would prefer the treatment costs over the costs of re-export or destruction of cargo. The impacts of each treatment would also be expected to be similar to those done for the preferred action and pose comparable risks.

2. Alternative Packing Material

As with the Treatment and Certification in China alternative, use of packing material other than SWPM can be used to certify that there is no pest risk in a shipment. Certification of use of these alternative packing materials eliminates pest risk and has minimal environmental consequences. The need of shippers to manufacture or obtain substitute packing materials could result in some environmental impacts, dependent upon the potential impacts of the manufacturing process.

D. Prohibiting Solid Wood Packing Material

The most stringent alternative would be for APHIS to prohibit entry into the United States of all SWPM from China. There would be no options for treatment and certification. SWPM arriving at U.S. ports would be returned to China, or would be seized and destroyed. This alternative makes introductions of pests in SWPM much less likely, but inaccurate documentation and limited capacity for monitoring of compliance with these regulations are still possible. This would be expected to eliminate most of the need for treatments and decrease the need for inspections. The potential environmental consequences of this alternative are anticipated to be less than the other alternatives.

1. Alternative Packing Techniques

This regulatory approach is the same as described in the section on alternative packing techniques under the other alternatives except that there would be no need for an exporter statement that states that the shipment contains no SWPM because all SWPM would be prohibited. The inspectors would have to check some containers to ensure shipper compliance, but this could be done by a brief look in the container to verify that no SWPM is present. Such inspections are less burdensome than thorough pest inspections when SWPM is present. The environmental consequences would be similar to those described previously.

2. Prohibiting Import of Solid Wood Packing Material

Prohibiting the import of all SWPM from China would eliminate the pest risks that are of greatest concern to APHIS. It would, however, require monitoring of cargo to ensure compliance with this prohibition. Such monitoring requires less effort than the thorough pest inspections when SWPM is present. SWPM arriving into the United Sates would be returned to China, or seized and destroyed. The direct environmental consequences of prohibition are minimal, but the methods of destruction of seized cargo with SWPM could include incineration and other processes that affect environmental quality. Any program-related incineration of seized cargo would be required to adhere to the regulatory standards and other provisions of the Clean Air Act, as amended in 1990.

III. Environmental Consequences

A. Potential Impacts

There are potential impacts from each of the alternatives being considered, but substantially less pest risk and environmental risk from the prohibition alternative. The pest risk from wood borers associated with SWPM from China is an important consideration for all alternatives. Potential program impacts arise from heat treatment, fumigation, preservative treatments, and use of substitute packing materials. Most of the treatment impacts are not expected to be very substantial, but the use of chemical applications (fumigation and preservative treatments) to treat SWPM is expected to pose greater impact than other compliance strategies.

1. No Action

Environmental impacts that could result from APHIS' implementation of the no action alternative include establishment of wood-boring insect pests with resultant damage to and loss of valuable ornamental and commercial trees, spread of wood-boring pests to other areas of the country with resultant damage to and loss of trees, and private or uncoordinated use of pesticides to control the pests with associated adverse impacts to the environment (the physical environment, human environment, and nontarget species). Based upon the current frequency of new introductions, it is anticipated that at least one major introduction of these wood boring beetles would become established in the United States every two years. The wide distribution of host plants of these wood-boring pests suggests the danger of dissemination across much of the country with increases in damage and losses commensurate with the spread. The damage and losses could result in reductions in private property value. Structural lumber could be internally damaged, resulting in risk of structural failure, losses to property, and injuries to humans. The damage and losses to commercial

trees would lower the value and production of timber and tree products such as maple syrup. The changes in the composition and age structure of forests resulting from no action could have long-term effects on the ecological relationships in the forested areas. There could be losses in recreational revenue to some areas from diminished amount of certain activities such as fall foliage visitations. There would be losses of valuable shade and ornamental trees in residential areas. The potential for future quarantine restrictions on export of logs and nursery stock is more likely if the no action alternative is selected.

The current treatments of SWPM in the United States by fumigation with methyl bromide would be expected to increase commensurate with anticipated increases in numbers of infested containers detected by inspectors. This increase is expected to occur as overall trade increases with China. The potential adverse consequences of fumigations with methyl bromide are discussed in greater detail in the section on Treatment and Certification in China alternative.

Ultimately, it would be expected that those forest pests (e.g., *Anoplophora*, *Ceresium*, *Hesperophanes*, and *Monochamus* species) present in the SWPM from China would spread to their maximum potential host range in the United States. The rate of introduction and spread cannot be determined, but the routine presence of these wood boring beetles on SWPM makes it inevitable that some species would find suitable sites for habitation in the United States. Their expansion from the sites of introduction would be expected to result in increasingly greater damage to forest ecosystems commensurate with the spread. The response to this increased damage by residents would be expected to include greater uncoordinated applications of pesticides and greater cutting of damaged forest, shade, and ornamental trees in these newly infested areas. The primary environmental consequences of this alternative are increased pest risk and elevated environmental risks from uncoordinated application of pesticides to limit damage from introduced pests. The potential adverse impacts from selection of this alternative are considerably greater than those anticipated for the other three alternatives.

2. Treatment and Certification in China

The environmental consequences of this alternative relate primarily to decreased pest risk and to potential elevated environmental risks from treatment methods. The only alternative with lower pest risk is the prohibition of all cargos containing SWPM. The Treatment and Certification in China alternative has comparable risks from treatment methods to the Certification/Treatment Combination alternative. These treatment risks are less than those from the uncoordinated pesticide use

(under nongovernmental eradication or suppression treatments) that is expected under the no action alternative, but greater than the risks under the Prohibition alternative. The mandatory requirements for proper conduct of heat treatments, fumigations, and preservative pesticide treatments are expected to minimize direct environmental consequences of the treatments, but indirect effects of these treatments may be considerable. In particular, the use of methyl bromide in fumigations has potential effects on ozone depletion that are discussed in further detail later in this section.

These unavoidable consequences of fumigations with methyl bromide may be partly mitigated by methods to recapture the gas, but the equipment needed to do this may be costly and not be readily available at the treatment facilities abroad. The only other feasible way of reducing (and ultimately eliminating) adverse impacts to the ozone layer associated with implementation of the interim rule is to promote rapid development and use of substitute packing materials. This issue will be explored further in the forthcoming proposal to deal comprehensively with SWPM.

a. Human Health

The heat treatment of SWPM is one available method to eliminate pest risk. Although approved heat treatment facilities are not expected to be widely used by the shipping industry, heat treatments are effective at eliminating pest risk with minimal consequences to human health. The primary issues relate to the type of heat treatment and proper operation of the facility. The high temperatures can result in burning if conditions are not properly set. Exposure to microwaves or water/steam that can cause skin burns are possible with insufficient safety precautions or protective clothing.

The applications of methyl bromide have several important human health issues. Methyl bromide gas and liquid are acutely toxic to humans. Methyl bromide is rapidly absorbed by the lungs and inhalation is the primary exposure route for methyl bromide. Symptoms of acute exposure typically are headache, dizziness, visual problems, gastrointestinal disturbances, and respiratory problems. The reference concentration, RfC, derived by EPA for general population exposure to methyl bromide was determined to be 0.48 mg/m^3 (EPA, 1992). The American Conference of Governmental Industrial Hygienists (ACGIH) has established exposure standards (Threshold Limit Value) of 5 ppm (20 mg/m^3) to protect workers against adverse neurotoxic and pulmonary effects (ACGIH, 1990). Regulatory fumigations have specific mandatory safety precautions to prevent exposure. Protective clothing and self-contained breathing

apparatus are required of personnel involved in the fumigation at locations where the concentration of methyl bromide exceeds 5 ppm. Access to the fumigation chamber during treatments and aeration is restricted to these personnel. A 30-foot wide barrier zone around the fumigation chamber prevents access by the general public. These safety precautions result in very little direct risk to human health from program-related methyl bromide fumigations. There are, however, some concerns related to the role of methyl bromide in stratospheric ozone depletion and the potential indirect effects of this depletion on increased ultraviolet light exposure of humans. This topic is discussed in the section on environmental quality.

The use of other fumigants would not be expected to have the potential for adverse effects to human health. Very little use of sulfuryl fluoride is expected due to difficulties in handling this fumigant, but the use of phosphene could be more widespread. The required safety precautions and 30-foot barrier zone around the fumigation site during fumigation and aeration make exposure unlikely. Entry to the restricted fumigation area is limited to working personnel equipped with self-contained breathing apparatus. The low concentrations of sulfuryl fluoride or phosphene gas in the ambient air outside of the 30-foot barrier zone would not be expected to adversely affect human health.

The preservatives (pesticides) registered by the EPA for treatments of wood pallets and SWPM include various chemicals such as creosote, chlorpyrifos, and oxine-copper. Their use in wood applications is approved by EPA contingent on the ultimate use and destination of the article. These treatments are authorized for use to treat SWPM for shipments to the United States. A thorough review of potential human health effects from exposures to these preservatives was done in the Environmental Impact Statement for "Importation of Logs, Lumber, and Other Unmanufactured Wood Articles" (USDA, APHIS, 1994). The assessment in this document indicated that the opportunities for exposure to these chemicals are extremely limited. Although some of the chemicals that are permitted for this use are especially hazardous (they have high toxicity ratings), the actual risk of an unacceptable exposure to workers is very remote due to low potential for exposure. Facilities for chemical treatments are expected to limit entry to certified applicators and those individuals are expected to wear proper protective clothing. Proper adherence to pesticide label instructions is required to prevent adverse health effects to the applicators and those individuals involved in the shipping and handling processes are expected to follow those label precautions. For wood preservative uses of chemicals, EPA has established additional labeling revisions and restrictions that decrease

potential exposure, thereby minimizing risk (EPA, 1988). Compliance with the label ensures that environmental consequences are minimal to human health.

It is expected that some shippers will consider the use of packing material other than SWPM for their shipments to avoid the need for treatments. The packing materials could include plastics, metals, and processed wood products. It is uncertain how accessible these packing materials are to the shipping industry in China. Demand for these substitute packing materials could result in some manufacturing of these materials for this use. The manufacturing process for each of these packing materials has potential impacts on human health, but an analysis of these impacts is beyond the scope of this EA. The application of pollution control technology to these manufacturing processes could minimize these potential impacts.

b. Nontarget Species

The treatments used for SWPM (heat treatments, fumigations, and preservatives) are not anticipated to result in any adverse impacts to nontarget species, including endangered and threatened species. Because of the contained nature of the treatments, there is virtually no opportunity for exposure of nontarget species to the treatments. Heat treatments and fumigations are done in enclosures that prevent the entry of nontarget species. Fumigants are dispersed to low concentrations outside the 30-foot wide barrier zone. Finally, the preservatives registered by EPA and available for use on SWPM also would be used in special treatment facilities that deter the entry and exposure of nontarget species. Compliance with pesticide labels and routine precautions further reduces the opportunity for exposure and effects on nontarget species.

As mentioned in the previous section on human health, it is expected that some shippers will consider the use of alternate packing materials (plastics, metals, and processed wood products) other than SWPM for their shipments to avoid the need for treatments. If that occurs, it could have an indirect beneficial impact on nontarget species, including threatened and endangered species, by reducing the need to harvest trees for SWPM and thereby preserving some species' habitats.

c. Environmental Quality

The heat treatments of SWPM are not expected to be widely used by the shipping industry. Heat treatments are effective at eliminating pest risk with minimal consequences to environmental quality. The only issue related to environmental quality is the disposal of the excess hot water on

completion of some heat treatments. Although the heated water may have accumulated some particulates (lower water quality) and the water temperature may affect ambient water temperatures, it is unlikely that disposal of these used waters would have measurable effect on quality or temperature of natural waters.

The potential consequences of fumigation with methyl bromide on environmental quality relate primarily to the issue of ozone depletion. There are no adverse impacts expected from soil contamination or water pollution from program fumigations. The rapid dispersion of methyl bromide, when vented from the fumigation stack, is expected to result in high concentrations within the 30-foot barrier zone around the fumigation site for a short period of time after aeration, and low concentrations of methyl bromide in the ambient air of the surrounding areas that would not be expected to adversely affect air quality. Most of the methyl bromide that is released to the atmosphere ultimately falls back to Earth as a relatively harmless acid. But about 3 to 5 percent of the methyl bromide makes its way into the stratosphere (FOE, 1992). The stratosphere is that portion of the atmosphere that extends from about 7 miles to 30 miles altitude above the Earth's surface. The stratosphere contains an ozone layer, which protects the Earth's surface from excessive ultraviolet radiation. The natural screening of ultraviolet radiation by the ozone layer helps to prevent the potential adverse effects of excessive exposure on human skin, wildlife, and plant photosynthesis. It has been determined that the use of some man-made chemicals, including methyl bromide, can affect this ozone layer. The methyl bromide that reaches the stratosphere reacts chemically to release bromine atoms which combine with other atoms to form ozone-reactive compounds such as bromine monoxide. These ozone-reactive compounds can eliminate large amounts of ozone from the stratosphere before degrading to non-reactive compounds.

There are inherent uncertainties in assessing the extent of effects from commodity fumigation with methyl bromide on potential ozone depletion. The degradation of ozone is a natural process to a certain extent and human sources of methyl bromide account for about 25 percent of the atmospheric methyl bromide (FOE, 1992). The primary concern relates to the potential for excessive adverse effects on the ozone layer from the human-originated (human) releases of ozone-depleting substances including methyl bromide. It was estimated that human use of methyl bromide may account for 5 to 10 percent of the current observed global ozone loss which is occurring at 4 to 6 percent per year (UNEP, 1992). The United States is responsible for approximately 43 percent of the global use and 50 percent of the global production of methyl bromide (FOE, 1992). The total human use of methyl bromide in 1995 was determined to

be 66,233 metric tons (MT) (German GTZ, 1997) and this worldwide level of use is expected to continue. Methyl bromide can be absorbed by commodities treated, but researchers estimate that 80 to 100 percent of the gas is emitted to the atmosphere (Montreal Protocol, 1987). Although commodity fumigations account for only about 8 percent of all human use of methyl bromide (USDA, APHIS, 1992), the increases in the use of methyl bromide in the fumigation of regulated commodities (whether in the United States or abroad) have the potential to affect the rate of ozone depletion.

A quantitative risk assessment was made of the potential effects of the interim rule on methyl bromide usage and release to the atmosphere. An analysis of cargo content by the U.S. Customs Service in the Department of the Treasury found that imports from China in 1997 amounted to 1,141,641 total shipments. Of those shipments, approximately 30 percent contain SWPM or 342,000 containers. Our analysis calculated a range for the potential release of methyl bromide resulting from the interim rule. Variables applied to assess the range of potential usage of methyl bromide included container size (40 ft vs. 20 ft length), application rate (4 lb/1000 cu ft vs. 15 lb/1000 cu ft), number of potential containers with SWPM fumigated with methyl bromide (100 percent fumigated vs. only 70 percent treated by this method), and amount of methyl bromide released (not absorbed) during venting (100 percent vs. 80 percent). The calculated potential usage of methyl bromide resulting from the interim rule was determined to range from 1,040 to 12,565 MT annually. This range is the equivalent of a 1.6 to 19 percent increase in the annual release of methyl bromide to the atmosphere.[1] This constitutes a substantial increase in the annual use of methyl bromide. Rapid development and use of substitute packing materials, an issue that will be explored in the very near future, will reduce (and ultimately eliminate) adverse impacts to the ozone layer associated with implementation of the interim rule.

The use of other fumigants would not be expected to have the potential for ozone depletion. Very little use of sulfuryl fluoride is expected due to difficulties in handling this fumigant, but the use of phosphene could be more widespread. There are no adverse impacts expected from soil contamination or water pollution from program fumigations with these compounds. Their rapid dispersion when vented from the fumigation stack is expected to result in high concentrations within the 30-foot barrier zone

[1]Other agencies, including EPA, have estimated potential increased use of methyl bromide associated with the proposed interim rule. Their estimates differ slightly from APHIS', but are generally in the same range.

around the fumigation site for a short period of time after aeration and low concentrations in the ambient air of the surrounding areas. These concentrations in the ambient air would not be expected to adversely affect air quality.

The pesticide applications (preservatives) registered by the EPA for treatments of wood pallets and SWPM include registrations of various chemicals such as creosote, chlorpyrifos, and oxine-copper. Applicability to wood of the specific preservatives approved by EPA is contingent on the ultimate use and destination of the article. These treatments are authorized for direct applications to SWPM prior to shipments to the United States. A thorough review of potential effects on environmental quality from use of these preservatives was done in the Environmental Impact Statement for "Importation of Logs, Lumber, and Other Unmanufactured Wood Articles" (USDA, APHIS, 1994). These adverse effects on environmental quality are temporary and affect only the air at the site of treatment. Proper adherence to pesticide label instructions is required to prevent adverse effects to air, soil, and water quality. Compliance with the label ensures that adverse effects are minimal to environmental quality.

As mentioned previously, it is expected that some shippers will consider the use of packing material other than SWPM for their shipments to avoid the need for treatments. Demand for these substitute packing materials could result in increased manufacturing of these materials for this use with commensurate increases in potential impacts on environmental quality. As with human health and nontarget species, an analysis of these impacts is beyond the scope of this EA. The application of pollution control technology to these manufacturing processes could minimize these potential impacts.

d. Uncertainties

Uncertainty is inherent in the measurement of any parameter and in the projection of likely human response to available regulatory options. There are several uncertainties that relate to this qualitative assessment. The environmental impacts from selection of this alternative are based on the assumption that the shippers will elect to treat their containers by fumigation to meet the plant pest requirements rather than change the packing material or use other treatments. This tends to overstate the actual risks from fumigation which would be diminished by using other packing material or other treatments (preservative or heat). In addition,

this assessment assumes that some fumigations already occur (roughly 30 percent of shipments with SWPM based upon port information) and the impacts are based on the effects from increased treatments relative to the present treatments (baseline). The annual frequency of shipments with SWPM is assessed as a static figure and no changes in the quantity of regulated commodities is assumed. The pressure for increasing trade makes it likely that annual shipments will increase rather than remain static and this would tend to understate the actual risks. The size of each shipment with SWPM is assumed to be one 40 foot container. This may either slightly overestimate or slightly underestimate the quantity because a shipment that is manifested may consist of only part of a container, a full container, or multiple containers. This should, however, provide a rough estimate of the total quantity. The inability to predict actual frequency and amounts of future shipments with SWPM makes it necessary to base projections on historical data, and the application of current data to anticipated demand may not accurately portray what that demand will be.

3. Certification/ Treatment Combination

The environmental consequences of this alternative would be comparable to the Treatment and Certification in China alternative except for more severe adverse impacts associated with the elevated risk of introduction of wood boring beetles during the period when the untreated cargo from China waits in ports in the United States prior to regulatory action. The chances of undesirable introductions under this alternative are less than under the no action alternative, but exceed the other two alternatives. The limited availability of facilities for heat treatment and fumigation at United States ports could delay the movement of some cargo shipments with commensurate increases in port storage costs and risk of pest introduction. It is expected that this potential delay in movement of their cargo would cause shippers to seek treatment prior to arrival in the United States. This effect on treatment decisions of the shippers could make the overall ultimate consequences similar to the preferred alternative, but the potential consequences of the elevated pest risk prior to the shippers' realization of the costs of potential delays could be considerable, particularly if wood boring beetles were to spread from infested cargo shipments to trees in areas adjacent to the ports.

4. Prohibiting Solid Wood Packing Material

The environmental consequences of this alternative relate primarily to the decreased pest risk. This alternative has the lowest pest risk of any of the alternatives. The prohibition of all shipments with SWPM eliminates the need for heat treatments, fumigations, or preservative treatments. Consequently, none of the environmental impacts associated with those treatment actions relate to this action. It is expected that this alternative will result in rapid development of substitute packing materials for cargos

from China. It is uncertain what the potential environmental consequences will be for the manufacture of large quantities of substitute packing materials to replace the SWPM now in use. The application of pollution control measures to the manufacturing processes for these substitute packing materials could be applied to minimize these potential impacts.

a. Human Health

A major advantage of prohibiting SWPM is the lack of need for chemical treatments for shipments, which may have adverse human health consequences. A well-run program would prevent introduction of any new pest risk to the United States, which eliminates the need for control programs that could involve chemical applications. This would eliminate any health concerns related to potential chemical exposures. If an inspection revealed the need to destroy SWPM and related cargo, methods such as incineration could be required. These methods can affect air quality and human health, but it is expected that few shipments would be out of compliance with this prohibition because most shippers would not want to have the burden of paying the high business costs associated with seizure and destruction of all or part of their load. If any program-related incineration of seized cargo were needed to eliminate pest risk, that incineration would be required to adhere to the regulatory standards and other provisions of the Clean Air Act, as amended in 1990.

This alternative requires the shippers to pack with other materials and these packing materials may not be readily available for use. It is likely that large quantities of some packing materials would have to be manufactured to provide for the anticipated increases in trade. The packing materials could include plastics, metals, and processed wood products. The manufacturing process for each of these packing materials has environmental impacts. An analysis of these impacts is beyond the scope of this EA, but it is clear that the application of pollution control measures could minimize these potential impacts.

b. Nontarget Species

There are no direct effects on nontarget species from prohibiting the use of SWPM in shipments from China. A well-run program would prevent introduction of any new pest risk to the United States and would eliminate the need for chemical applications to trees or forested areas or the potential loss of forest habitat. This precludes any potential adverse effects on nontarget species that those applications could have. Methods used to destroy cargo with SWPM, such as incineration, could be required. These methods can effect air quality and nontarget species, but it is expected that

few shipments would be out of compliance with this prohibition because most shippers would not want to have the burden of paying the high business costs associated with seizure and destruction of all or part of their load. Any program-related incineration of seized cargo would be required to adhere to the regulatory standards and other provisions of the Clean Air Act, as amended in 1990.

Access to large quantities of packing materials, other than SWPM, would most likely involve some manufacturing of these materials. The manufacturing process for each of these packing materials has potential impacts on nontarget species. As with human health, an analysis of these impacts is beyond the scope of this EA. The application of pollution control technology to these manufacturing processes could minimize these potential impacts.

c. Environmental Quality

There are no direct effects on environmental quality from prohibiting the use of SWPM in shipments from China. A well-run program would prevent introduction of any new pest risk to the United States and would eliminate the need for control programs that could involve chemical applications. This precludes any potential adverse effects on soil, air, or water quality that those applications could have. Methods used to destroy cargo with SWPM, such as incineration, could be required. These methods can affect air quality, but it is expected that few shipments would be out of compliance with this prohibition because most shippers would not want to have the burden of paying the high business costs associated with seizure and destruction of all or part of their load. Any program-related incineration of seized cargo would be required to adhere to the regulatory standards and other provisions of the Clean Air Act, as amended in 1990.

Access to large quantities of packing materials, other than SWPM, would most likely involve some manufacturing of these materials. The manufacturing process for each of these packing materials has potential impacts on environmental quality. As with human health and nontarget species, an analysis of these impacts is beyond the scope of this EA. The application of pollution control technology to these manufacturing processes could minimize these potential impacts.

d. Uncertainties

Uncertainty is inherent in the measurement of any parameter and in the projection of likely human response to available regulatory options. There are several uncertainties that relate to this qualitative assessment. The assumption is that prohibiting shipments with SWPM will eliminate the pest risk associated with the unprocessed wood. This alternative is predicated on complete compliance with the regulations by the shippers and maximum denial of entry of shipments with SWPM from China by APHIS inspectors. Monitoring of shipments for compliance by inspectors is expected to ensure that most shipments have no SWPM and that the pest risk is low. Realistically, it should be expected that a small percentage of the shipments from China will contain some SWPM and some are likely to be infested. It is uncertain how great the capacity of the Chinese shippers will be to obtain cost-effective packing material other than SWPM for their shipments. It is anticipated that some manufacturing of other packing materials may be needed. The extent of the availability and use of pollution abatement technology to minimize impacts from the manufacturing processes is uncertain.

B. Consistency with Other Laws/Treaties/Executive Orders

1. Montreal Protocol

The 1987 Montreal Protocol on Substances that Deplete the Ozone Layer was designed to reduce and to eventually eliminate the emissions of man-made ozone depleting substances. It was developed in response to evidence that man-made substances, particularly chlorofluorocarbons, were damaging the ozone layer in the stratosphere (the part of the atmosphere that extends from 7 to 30 miles above the Earth's surface).
The ozone layer protects the Earth's surface from excessive ultraviolet radiation. The Protocol came into force on January 1, 1989, when 29 countries and the EEC ratified it. These countries represented approximately 82 percent of world consumption. The original Protocol was amended in London in 1990, in Copenhagen in 1992, and in Montreal in 1997. The United States has signed the Protocol and ratified all amendments except the 1997 Montreal amendments. China has become Party to the Protocol and the London amendments through accession after the agreements were already in force. This Protocol places certain required reductions in the use of man-made ozone-depleting substances on each country. The reductions required of China (as a developing country under Article 5, part 1) are more flexible than those of the United States, but it is the intent of the Protocol for China to phase out their use of ozone-depleting substances.

The Protocol includes methyl bromide under Article 2H as a regulated ozone-depleting substance. The use of methyl bromide for quarantine treatment purposes is very minor compared to most uses, and the Montreal Protocol maintains an exemption to the restrictions on methyl bromide for quarantine use. The intent of this Protocol is to phase out this use pattern or develop effective alternative treatments where possible. The proposed use of methyl bromide in fumigation of shipments with SWPM from China would be expected to continue, but it is expected that this requirement will promote the use of packing material other than SWPM in the long-term, and that the final rule for shipments from China with SWPM will reflect the adjustments made by the industry to more effectively handle pest risk from SWPM without the need for fumigation.

2. General Agreement on Tariffs and Trade

The General Agreement on Tariffs and Trade (GATT) is an international agreement on regulations for trade and trade-related issues. The United States is a signatory to GATT and a member of the World Trade Organization (WTO), but China is not. As a member of the WTO, the United States is obliged to honor certain rules and agreements on issues related to trade. In particular, the 1995 WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS agreement) placed more rigorous requirements on international phytosanitary regulations. Phytosanitary regulations are those regulations of imported and exported commodities designed to protect plant health. The SPS agreement directed all countries to base their phytosanitary measures on relevant standards, guidelines, and recommendations developed under the auspices of the International Plant Protection Convention (IPPC). The IPPC is a treaty, dating back to 1952, aimed at promoting international cooperation to control and prevent the spread of harmful plant pests.

It is the policy of APHIS to impose phytosanitary measures against regulated pests according to the rules of the IPPC. In adherence to the IPPC, the interim rule on shipments with SWPM from China is based on standard SPS rationale (transparent), technically justified by pest risk assessments, and no more restrictive than measures imposed domestically for the same pests. The proposed interim rule of SWPM from China relates primarily to the increased risk demonstrated by many recent incidents where exotic pests were detected in SWPM from China, but it is clear that other foreign origins may also represent increased pest risk. This is, therefore, anticipated to be the first step toward better exclusion of pest risks from SWPM. APHIS is working on a revision of the regulations for importation of SWPM from all foreign countries to improve exclusion procedures and better protect U.S. forest resources. However, the increased frequency of recent interceptions and

introductions of plant pests from China has elevated the priority for regulation of SWPM from China and made the need more urgent for the proposed interim rule.

3. Executive Order No. 12898 (Environmental Justice)

Consistent with Executive Order No. 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," APHIS considered the potential for disproportionately high and adverse human health or environmental effects on any minority populations and low-income populations. The interim rule on SWPM from China affects only Chinese cargo. Commodities associated with SWPM involve a wide variety of different industries, and the impacts are not specific to any given subgroup of the United States population. Although EO 12898 was not intended to apply to actions overseas, APHIS is sensitive to potential concerns that a regulatory action such as this interim rule which targets only products from China might be perceived as discriminatory toward China or its population. However, the interim rule is proposed because of an increased danger of pest introductions that have been traced directly back to China. The need and purpose of this interim rule, then, justify this regulatory action, and APHIS will endeavor to make maximum and diplomatic use of communication resources to lessen the impact on Chinese trade and the Chinese people.

4. Executive Order No. 13045 (Protection of Children)

Consistent with Executive Order No. 13045, "Protection of Children From Environmental Health Risks and Safety Risks," APHIS considered the potential for disproportionately high and adverse environmental health and safety risks to children. The impacts of the regulations on SWPM are not specific to any given subgroup like children. The treatment of SWPM and substitution of other packing material affects shipments from China that are handled primarily by adults. Therefore, no disproportionate effects on children are anticipated as a consequence of implementing the preferred action.

V. References

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U.S. Environmental Protection Agency, Office of Pesticide Programs, 1988. Guidance on the reregistration of wood preservative pesticide products containing arsenic, chromium, and chromated arsenical compounds as the active ingredient. Washington, DC.

VI. Agencies, Organizations, and Individuals Consulted

This environmental analysis was prepared and reviewed by APHIS. The addresses of participating APHIS units, cooperators, and consultants (as applicable) follow.

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Department Cooperators:
Department of Agriculture
Department of Commerce
Department of Interior
Department of Justice
Department of State
Department of Treasury

Cooperators in the Executive Office of the President:
Council on Environmental Quality
Office of Management and Budget
Office of Science and Technology Policy
U.S. Trade Representative

Interim Rule—Solid Wood Packing Material from China
Finding of No Significant Impact

Summary

The discovery at warehouses in 11 States of wood boring insect pests contained in solid wood packing material (SWPM) in shipments from China prompted the need to take immediate action to reduce the threat to this nation's forest ecosystems. Existing regulations to exclude such pests of Chinese origin have proven ineffective. Accordingly, the Animal and Plant Health Inspection Service, in consultation with many other Federal agencies, has proposed an interim rule, to be phased in over 90 days, which would require certification of heat treatment, fumigation, or treatment with preservatives abroad of SWPM from China before they are allowed to enter this country.

Under procedures implementing the National Environmental Policy Act for the Animal and Plant Health Inspection Service, rulemakings are classified as normally requiring preparation of environmental assessments. The environmental assessment prepared for this interim rule considered a number of other alternative means of dealing with the potential for pest infestations, including no action (defined as no change to existing processes), a combination of certification/treatment options for SWPM from China, and prohibiting all SWPM from China. Environmental effects associated with each alternative are discussed briefly below.

No action. A failure to address the increased risk associated with SWPM from China would place this country's forest ecosystems in jeopardy. The species of insect pests that have been detected in SWPM from China, all of which are capable of destroying trees into which they bore, can multiply and spread rapidly. The loss of forests to these pests could have a devastating effect on wildlife, air and water quality, soil composition, and a host of other environmental values linked to our forest ecosystems. Human health and safety could also be placed at somewhat greater risk through uncoordinated use of pesticides to control infestations of the pests. The economic consequences of the no action alternative, which have been considered separately, would also be devastating.

Certification/Treatment Combination. Treatment here of SWPM from China would appear to have essentially the same effects on environmental quality as treatment abroad. The treatments, while not without risk to applicators and others involved in the process, are strictly regulated. Adherence to label directions and the use by applicators and others of published precautions are adequate to assure their health and safety.[1] Still, under this alternative, pests would enter the country, sometimes inland of ports

not equipped with treatment facilities. Delays and additional transportation in treating SWPM in the United States creates risk that some insect pests could escape to the environment.

Prohibiting Solid Wood Packing Material. This alternative eliminates the pest risks associated with SWPM from China. At the same time, however, it would severely limit imports from that country, unless non-wood packing materials could be substituted right away—an unlikely prospect.

Treatment and Certification in China (The Proposed Action). Heat treatments, fumigation, and the treatment with preservatives of SWPM in China are not expected to affect the quality of the human environment in China substantially differently than such actions would here. The protections mandated for applicators and others associated with treatment processes here generally apply in China as well. But heat treatment abroad, especially in the near-term, is not viewed as feasible. It is much more likely that the SWPM will be fumigated, and the fumigant that will probably be most widely used is methyl bromide, an ozone depleter targeted for phase-out under the Montreal Protocol.

Analysts responsible for preparing the environmental assessment have estimated that implementation of the proposed action would result in releasing between 1,040 and 12,565 metric tons of methyl bromide into the atmosphere each year, a 1.6 to 19 percent increase. These estimates indicate a substantial annual increase which, were it to persist over a number of years, may compel a finding of environmental significance for purposes of the National Environmental Policy Act process. We are committed, however, to limiting the time period during which the interim rule will be effective by quickly embarking upon a search for alternative, environmentally friendlier means of dealing with the SWPM problem worldwide. We will strive to complete this task as soon as possible. APHIS intends to implement this interim rule until APHIS has completed the rulemaking process for improved measures for mitigating pest risk of SWPM from all sources. During the period this interim rule is in effect, APHIS will work with China to obtain information on actions China has taken to comply with the interim rule, including the use of methyl bromide and other pesticides. If the amount of methyl bromide used in China is greater than expected or if the interim rule remains in effect longer than 2 years, additional environmental analysis may be necessary. Under the circumstances, a finding of no significant impact with respect to the anticipated short-term increase in methyl bromide use is appropriate.

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[1] Effects on the atmosphere of increased methyl bromide fumigations are discussed, *infra*, although it is not expected that such fumigations would be as widely used here as they might be in China.

In all other respects, implementation of the proposed action appears to be compatible with applicable laws, treaties, and executive orders.

Finding

Accordingly, I find that the interim rule, requiring certification of treatment in China of SWPM from China, will not significantly affect the quality of the human environment. This finding will be published as part of the interim rule.

/s/ September 15, 1998

Craig A. Reed
Administrator
Animal and Plant Health Inspection Service

Date