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OA/ID Number: 2890
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Back-up S. 870, 871, 872: S. 872

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101ST CONGRESS
1ST SESSION

S. 872

To phaseout production of certain ozone-depleting chemicals; to institute a policy promoting safe alternatives to ozone-depleting chemicals, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MAY 1 (legislative day, JANUARY 3), 1989

Mr. GORE introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

A BILL

To phaseout production of certain ozone-depleting chemicals; to institute a policy promoting safe alternatives to ozone-depleting chemicals, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 SECTION 1. SHORT TITLE.

4 This Act may be cited as the "Upper-Ozone Chemicals
5 Act of 1989".

6 SEC. 2. FINDINGS.

7 The Congress finds that because no level of strato-
8 spheric ozone depletion or global climate change caused by
9 human activities can be deemed safe—

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20 million 400 million

— Aircraft guidelines HRF on PFI cars

— 50% to O₃ production
50% to Deficit

— DOE/EPA Strategy
Plan to cover Eff. stds
4 CFC phaseout

→ 5% of Rule
for block grants
→ describe block grants
20% to
big chunk to develop
group for Third
World Apps
→ threat +
deter
→ DE

FINDING ^{or GOAL} for ALL 3 Bills

→ Maximal effort to develop
refrigerant and A/C equipment
that is ^{emission} ~~emission~~ ^{reduction} ~~reduction~~ to the
ozone layer, with primary emphasis
on developing such equipment
in the 3rd.

2/6/95

101st CONGRESS
1st SESSION

S. _____

No major effort to offer you.
the "products containing"
(e.g. rigid foams) chemical
requirements need work -
seems impossible to enforce,
as written.

To respond to the danger to human health and the world environment that will result from destruction of the Earth's stratospheric ozone layer by manmade chemicals, to minimize emissions of these chemicals in the near-term while safe alternatives are being developed, and for other purposes.

IN THE SENATE OF THE UNITED STATES

March 8, 1989

Mr. Gore (for himself, _____

_____)
introduced the following bill; which was read twice and referred to the Committee on _____

A BILL

To respond to the danger to human health and the world environment that will result from destruction of the Earth's stratospheric ozone layer by manmade chemicals, to minimize emissions of these chemicals in the near-term while safe alternatives are being developed, and for other purposes.

Be it enacted by the Senate and the House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

(a) Short Title. -- This Act may be cited as the "Stratospheric Ozone Protection Act of 1989."

SEC. 2. FINDINGS.

The Congress finds that --

(1) We, the present generation, have a commitment to coming generations to leave them with a sound environment in which they might flourish just as we have.

(2) The stratospheric ozone layer, positioned about 25 km above the Earth's surface, protects humans and other life on Earth from direct exposure to harmful ultraviolet radiation.

(3) Without the protection provided by the stratospheric ozone layer, lethal levels of ultraviolet radiation would reach the Earth's surface, ~~extinguishing~~ ^{destroying} life on our planet just as surely as if the ~~atmosphere was itself were removed~~.

(4) It has been known for over fifteen years that manmade chemicals are reaching the stratosphere, and destroying the ozone layer. As of 1986, the United States was responsible for over one-quarter of global production of the ozone-destroying chemicals known as chlorofluorocarbons.

(5) Most of the ozone-destroying chemicals are also responsible for as much as one-fifth ^{to one} of the so-called "greenhouse effect," caused by the buildup of manmade pollutants in Earth's atmosphere, which could warm the Earth and cause severe economic and social dislocation due to changing climate patterns.

(6) Although global and regional agreements to reduce emissions of ozone-destroying chemicals have been negotiated, sustained emissions reductions have not been forthcoming. As a result, atmospheric concentrations of ozone-destroying chemicals have risen steadily since the beginning of this decade. (Check - CFCs only? ...see UNEP/GEMS, p.16; WRI 88/89, p. 336)

(7) The Spring 1988 findings of the Ozone Trends Panel of the United States National Aeronautics and Space Administration concluded that stratospheric ozone destruction is occurring over the Northern Hemisphere, affecting major population areas in North America and Europe. In addition, the most recent scientific findings have demonstrated that conditions ¹⁹⁸⁶ for substantial ozone destruction by manmade chemicals exist over the Arctic, following mechanisms similar to those already known to destroy ozone over Antarctica.

(8) These ozone-destroying chemicals are so long-lived in the atmosphere, that they may continue to destroy ozone for another century after they are completely eliminated from human use. Every year that we delay in eliminating emissions of these chemicals implies an additional five to ten years that they will remain in the atmosphere, destroying stratospheric ozone.

(9) Although a complete production phaseout of ozone-destroying chemicals is the longer-term solution to

halting the destruction of stratospheric ozone, there are near-term steps that can be taken to minimize these emissions. These steps involve no-cost, to low-cost measures that will not discernably interfere with the normal applications of these chemicals, but should substantially reduce unnecessary release of the chemicals to the environment.

(10) The United States can assert the kind of leadership it assumed in halting the use of chlorofluorocarbons in aerosol cans by instituting market and regulatory strategies that --

(A) encourage rapid replacement of ozone-destroying chemicals with safe substitutes, and

(B) immediately reduce releases to the environment.

(11) These twin goals can be met by --

(A) a user deposit fee on chlorofluorocarbons that would make safe substitutes competitive and encourage recapture and recycling;

(B) a deposit-return system whereby chlorofluorocarbons in discarded appliances would be recovered and reused or destroyed; and

(C) regulations that would reduce leakage rates from devices such as auto air conditioners and require capture of CFCs and other ozone-destroying chemicals in foam blowing and other industrial activities.

SEC. 3. OBJECTIVES AND NATIONAL GOAL.

(a) The objectives of the Act are to restore and maintain the chemical and physical integrity of the Earth's stratospheric ozone layer and to protect human health and the global environment from all known and potential dangers due to destruction of the stratospheric ozone layer, that is or may be related to the chlorofluorocarbons, halons, or other substances covered by this Act by --

(1) reducing significantly the unnecessary release of ozone-destroying chemicals into the atmosphere, and

(2) promoting the rapid development and deployment of alternatives to the use of the chlorofluorocarbons and other substances covered by this Act.

(b) In order to achieve the objectives of this Act, it is the national goal to immediately eliminate unnecessary anthropogenic emissions of manmade chemicals with the potential for destroying stratospheric ozone, including chlorofluorocarbons and other halogenated carbons with ozone-destruction potential.

SEC. 4. DEFINITIONS.

As used in this Act:

(1) The term "Secretary" means the Secretary of Commerce.

(2) The term "Administrator" means the Administrator of the Environmental Protection Agency.

(3) The term "household appliances" means non-commercial personal effects, including air-conditioners, refrigerators, and motor vehicles.

(4) The term "commercial appliances" means commercial equipment, including air conditioners, chillers, refrigerators, and freezers.

(5) The term "import" means to land on, bring into, or introduce into, or attempt to land on, bring into, or introduce into, any place subject to the jurisdiction of the United States, whether or not such landing, bringing, or introduction constitutes an importation within the meaning of the customs laws of the United States.

(6) The term "manufactured chemical" means any organic or inorganic chemical of a particular molecular identity, or any mixture, that has been manufactured for commercial purposes.

(7) The term "medical purposes" means medical devices and diagnostic products (A) for which no safe substitute has been developed and (B) which, after notice and opportunity for public comment, have been approved and determined to be essential by the Commissioner of the Food and Drug Administration, in consultation with the Secretary.

(8) The term "person" means an individual, corporation (including a government corporation), partnership, firm, joint stock company, trust, association, or any other private entity, or any officer, employee, agent, department, or instrumentality of the Federal Government, of any State or political subdivision thereof (including any interstate body), or of any foreign government (including any international instrumentality).

(9) The term "chemicals covered by this Act" means those manufactured chemicals ^{which} ~~which~~ are known or may reasonably be anticipated to cause or contribute to stratospheric ozone depletion, ~~and are listed under~~ subsections (a) or (b) of section 5 of this Act.

(10) The term "chlorofluorocarbon recycling equipment" means equipment that meets the Underwriters Laboratories standards for the extraction and purification of chlorofluorocarbon coolants from air conditioning and refrigeration equipment [CORRECT ?]

(11) The term "mobile air conditioner" means an air conditioner designed for installation in a motor vehicle.

SEC. 5. LISTING OF CHEMICALS COVERED BY THIS ACT.

(a) Principal Chemicals ~~to be~~ Affected. -- Within thirty days after enactment of this act, the Secretary shall publish a priority list of manufactured chemicals ~~which~~ ^{that} are known or may reasonably be anticipated to cause or contribute to stratospheric ozone destruction. The initial list shall include chlorofluorocarbon-11, chlorofluorocarbon-12, chlorofluorocarbon-113, halon-1211, halon-1301, and carbon tetrachloride. At any time the Secretary may reclassify a chemical from subsection (a) to subsection (b), or from subsection (b) to subsection (a), if concerns over protection of the stratospheric ozone layer dictate such action.

(b) Other Chemicals to be Affected. -- Simultaneously with publication of the priority list, the Secretary shall create a list of other manufactured chemicals which, in the judgement of the Secretary, meet the criteria set forth in the first sentence of subsection (a). The list of other chemicals shall be subject to the limitations on ozone depletion potential under section X of this Act, and shall include chlorofluorocarbon-22, chlorofluorocarbon-114, chlorofluorocarbon-115, methyl chloroform, and methylene chloride. At least annually thereafter, the Secretary shall publish a proposal to add to such list each other manufactured chemical which, in the judgement of the Secretary, meets the criteria set forth in the first sentence of subsection (a). At any time the Secretary may reclassify a chemical from subsection (b) to subsection (a), or from subsection (a) to subsection (b), if concerns over protection of the stratospheric ozone layer dictate such action.

(c) Ozone Depletion Factor. -- Simultaneously with publication of ~~the~~ lists or additions ~~thereto~~ under this section, and at least annually thereafter, the Secretary

shall assign to each listed chemical a numerical value representing the ozone depletion potential of each chemical, on a mass (per kilogram) basis, as compared with chlorofluorocarbon-11. The numerical value shall, for the purposes of section X, constitute the ozone depletion factor of each chemical. Until the Secretary promulgates regulations under this subsection, the following ozone depletion factors shall apply:

substance	ozone depleting factor
Chlorofluorocarbon-11.....	1.00
Chlorofluorocarbon-12.....	1.00
Chlorofluorocarbon-22.....	0.05
Chlorofluorocarbon-113.....	0.78
Carbon tetrachloride.....	1.06
Methyl chloroform.....	0.10
Halon-1211.....	2.69
Halon-1301.....	11.4

[Item (c) is more pertinent to a production phaseout, and may be eliminated if not needed here.]

SEC. 6. REPORTING REQUIREMENTS.

(a) Priority Chemicals List. -- Beginning March 31, 1990, and annually thereafter, each person producing, importing, or purchasing a chemical listed under subsection (a) of section 5 shall file a report with the Secretary setting forth the amount of the chemical that was produced, imported, or purchased by such person during the preceding calendar year. Not less than annually thereafter, each producer or importer shall file a report with the Secretary setting forth the production and importation levels of such chemical in each successive twelve-month period until such producer or importer ceases production or importation of the chemical. Each such report shall be signed and attested by a responsible corporate officer.

(b) Nonpriority Chemicals List. -- Beginning March 31, 1990, and annually thereafter, each person producing, importing, or purchasing a chemical listed under subsection (b) of section 5 shall file a report with the Secretary setting forth the amount of the chemical that was produced, imported, or purchased by such person during the preceding calendar year. Not less than annually thereafter, each producer or importer shall file a report with the Secretary setting forth the production or importation levels of such chemical in each successive twelve-month period until such producer or importer ceases production or importation of the

chemical. Each such report shall be signed and attested by a responsible corporate officer.

SECTION 7. LIMITATIONS ON THE RELEASE OF LISTED CHEMICALS.

(a) After July 1, 1991, no person shall manufacture, process, distribute in commerce, or otherwise use (except for medical purposes) any listed chemical in any manner other than a totally enclosed manner. "Totally enclosed" means that during the lifetime of the good in question not more than 5 per centum of the original charge or volume of such chemical will be released during the course of ordinary and customary use of such good, including repairs or disposal.

(b) After July 1, 1991, no person shall manufacture, process, distribute in commerce, or otherwise use (except for medical purposes) a listed chemical in a totally enclosed manner without --

[CHECK WORDING ABOVE]

(1) Installing on such device a servicing aperture which will allow service and repair of such good with release of only de minimus amounts of such chemical,

(2) Assuring the availability and actual use of servicing equipment adequate to assure the achievement of no more than a de minimus release of such chemical.

(3) For purposes of this section a "de minimus" amount is 0.050 per centum of the total charge of such chemical, or five pounds, whichever is less, released during a period of twelve months.

SEC. 8. ESTABLISHMENT OF A CHLOROFLUOROCARBON DEPOSIT FEE.

(a) After January 1, 1990, any person offering for sale chlorofluorocarbon coolant shall include in the cost of such chemical a deposit fee prorated on the basis of five dollars per pound of such chemical sold, said fee to be returned to purchaser upon return of an equivalent amount of recyclable chlorofluorocarbon coolant to seller.

[This one is a KEY section, and it needs a lot of work. Please be liberal with suggestions.]

SECTION 9. MOBILE AIR CONDITIONERS.

(a) After January 1, 1991, no person shall perform service on automobile air conditioners, unless such person has purchased and uses equipment ^{which} ~~which~~ has been approved by Underwriters Laboratories or a similar institution, for recovery and recycling of chlorofluorocarbon coolant. The states shall establish phased schedules for the acquisition of such equipment by such establishments. The schedule shall provide for early acquisition by high-volume establishments and subsequent acquisition by lower-volume establishments, providing that all such establishments have recovery and recycling equipment in place by January 1, 1991.

(b) After January 1, 1991, no person shall sell or offer for sale chlorofluorocarbon coolant suitable for use in mobile air conditioners in containers smaller than fifteen pounds. The states shall issue regulations providing for a phaseout of chlorofluorocarbons in such containers in the period between enactment of this Act and January 1, 1991.

(c) Within ninety days of ~~the enactment of this Act,~~ no person shall sell or offer for sale any chlorofluorocarbon coolant suitable for use in mobile air conditioners in containers ^{relating to the} ~~smaller than~~ fifteen pounds, unless ~~it~~ ^{the container} bears a warning label indicating the product's danger to stratospheric ozone.

Require to fix leak before recharging.
SEC. 10. HALON FIRE EXTINGUISHERS.

(a) After January 1, 1990, no person shall sell or offer for sale fire extinguishers for consumer applications ~~which~~ contain halons or other ozone-destroying chemicals.

(b) Effective upon passage of this Act, no person shall produce fire extinguishers for consumer applications ~~which~~ contain halons or other ozone-destroying chemicals in a quantity that exceeds the quantity produced ...(?).

?? USPIRG -- How does your "essential use" strategy fit in here ??

^{Non}
SEC. 11. ^{Effective immediately} UNESSENTIAL OZONE-DESTROYING PRODUCTS.

(a) ~~After August 31, 1989,~~ no person shall sell or offer for sale chlorofluorocarbon-propelled plastic party streamers, noise horns, or cleaning sprays for electronic and photographic equipment.

PLEASE FEEL FREE TO ADD OTHER SECTIONS THAT COVER AREAS NOT ADDRESSED SO FAR.

SEC. 12. EXCEPTION FOR NATIONAL SECURITY.

(a) The President may issue such orders regarding production and use of halon-1211 and halon-1301 at any specified site or facility as may be necessary to protect the national security interests of the United States, if the President personally finds that adequate substitutes are not available and that the production and use of such substance is necessary to protect such national security interests. Such orders may include, where necessary to protect such interests, an exemption from any requirement contained in this Act. The President shall notify the Congress within thirty days of the issuance of an order under this paragraph providing for any such exemption. Such notification shall include a statement of the reasons for ~~the~~ granting of the exemption. An exemption under this paragraph shall be for a specified period ~~which~~ ^{that} may not exceed one year. Additional exemptions may be granted, each upon the President's issuance of a new order under this paragraph. Each such additional exemption shall be for a specified period ~~which~~ ^{that} shall not exceed one year. No exemption shall be granted under this paragraph due to lack of appropriation unless the President shall have specifically requested such appropriation as a part of the budgetary process and the Congress shall have failed to make available such requested appropriation.

(b) The Secretary of Defense shall seek to eliminate all unnecessary emissions of halon-1211 and halon-1301 that presently occur during testing of fire-extinguishing equipment at Department of Defense facilities. Pursuant to this, the Secretary of Defense shall investigate the feasibility of testing such equipment with alternative methods that do not result in the unnecessary release of halon-1211 and halon-1301 to the environment.

give Sec.
a target
date.

SEC. 13. DISPOSAL OF OZONE-DESTROYING CHEMICALS.

(a) In the event that a user of a chemical listed in subsections (a) and (b) of section 5 chooses disposal rather than recycling of such chemical, then effective January 1, 1990 --

(1) A chemical listed pursuant to this Act shall be deemed to meet the requirements of section 3001 of the Resource Conservation and Recovery Act.

(2) A chemical listed pursuant to this Act shall be disposed of only through incineration or other means ~~which~~ ^{that} assures 99 per centum destruction of such chemical.

(3) Any appliance, machine or other good containing a listed chemical(s) in bulk (including but not limited to refrigerators and air conditioners) shall be accepted for disposal only by persons licensed to accept such goods, and the listed chemical(s) shall be removed from confinement and recycled or destroyed ^{in compliance with} ~~pursuant to~~ the requirements of this Act. Unless and until regulations establishing a program for approving, licensing, and assuring the financial responsibility of persons to accept goods containing such chemicals, only governmental entities, or their agents, contractors, or employees, are authorized to do so.

(4) During the disposal of listed chemicals, no listed chemicals shall be vented into the atmosphere or otherwise released in a fashion ~~which~~ ^{that} permits ~~it to enter~~ ^{state to} the environment ~~in~~ other than de minimus quantities.

practicality
-weak on
this issue
(5) Any product in which a listed substance has been incorporated so as to constitute an inherent element of such product, including but not limited to rigid and soft foams, shall be disposed of only through incineration or other means ~~which~~ ^{that} result in not less than 99 per centum destruction.

[THE LANGUAGE FOR SECS. 14-19 ALREADY EXISTS MORE OR LESS, AND WILL BE ADDED IN THE NEXT DRAFT.]

SEC. 14. FEDERAL ENFORCEMENT.

(a) Compliance Orders.--(1) Whenever on the basis of any information the Secretary determines that any person has violated or is in violation of any requirement of this Act, the Secretary may issue an order assessing a civil penalty for any past or current violation, requiring compliance immediately or within a specified time period, or both, or the Secretary may commence a civil action in the United States district court in the district in which the violation occurred for appropriate relief, including a temporary or permanent injunction.

(2) Any order issued pursuant to this subsection may include a suspension or revocation of any permit issued by the Secretary under this Act and shall state with reasonable specificity the nature of the violation. Any penalty assessed in the order shall not exceed \$25,000 per day of noncompliance for each violation of a requirement of this Act. In assessing such a penalty the Secretary shall take

into account the seriousness of the violation and any good faith efforts to comply with applicable requirements.

(b) Public Hearing.---Any order issued under this section shall become final unless, no later than thirty days after the order is served, the person or persons named therein request a public hearing. Upon such request the Secretary shall promptly conduct a public hearing. In connection with any proceeding under this section the Secretary may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and may promulgate rules for discovery procedures.

(c) Violation of Compliance Orders.---If a violator fails to take corrective action within the time specified in a compliance order, the Secretary may assess a civil penalty of not more than \$25,000 for each day of continued noncompliance with the order and the Secretary may suspend or revoke any permit issued to the violator.

(d) Criminal Penalties.---Any person who---

(1) knowingly exceeds the production limits under section 7 (production phase-out for initial list) or section 9 (limitation on Ozone depletion potential);

(2) knowingly introduces into interstate commerce a substance that was produced in violation of section 7 or section 9;

(3) knowingly imports a substance listed under subsection (a) of section 5, a product containing such substance, or a product manufactured with a process that uses such a substance, in violation of section 11 (certification of equivalent programs);

(4) knowingly introduces into interstate commerce a substance or product in violation of section 8 (limitation of use) or section 12 (labeling);

(5) knowingly omits material information or makes any false material statement or representation in any application, record, report, permit, or other document filed, maintained, or used for purposes of compliance with this Act; or

(6) knowingly produces, transports, distributes, or uses any substance listed under section 5, a product containing such a substance, or a product manufactured with a process that uses such a substance, and who knowingly destroys, alters, conceals, or fails to file any record, application, report, or other document required to be maintained or filed for purposes of compliance with this Act

shall, upon conviction, be subject to a fine in accordance with title 18 of the United States Code for each day of a violation, or imprisonment not to exceed two years, or both. If conviction is for a violation committed after a first

punishment under the respective paragraph shall be doubled with respect to both fine and imprisonment.

(e) Civil Penalty.---Any person who violates any requirement of this Act shall be liable to the United States for a civil penalty in an amount not to exceed \$25,000 for each such violation.

(f) Violations.---Each day of violation of any requirement of this Act shall, for purposes of this section, constitute a separate violation. In addition, for purposes of section 7 (production phase-out for initial list), section 8 (limitation on use), section 9 (limitation on ozone depletion potential), and paragraphs (1), (2), (3), and (4) of subsection (d) of this section, the production, introduction into commerce, or importation of each one hundred pounds of a substance listed under subsection (a) of section 5 that is in excess of the production limits under section 7 or section 9 shall constitute a separate violation.

SEC. 15. JUDICIAL REVIEW OF FINAL REGULATIONS AND CERTAIN PETITIONS.

Any judicial review of any final action of the administrator pursuant to this Act shall be in accordance with sections 701 through 706 of title 5 of the United States Code, except that---

(1) a petition for review of any final action of the Administrator may be any interested person in the Circuit Court of Appeals of the United States for the Federal judicial district in which such person resides or transacts business, and such petition shall be filed within ninety days from the date of such promulgation or denial or after such date if such petition is for review based solely on grounds arising after such ninetieth day; action of the Administrator with respect to which review could have been obtained under this subsection shall not be subject to judicial review in civil or criminal proceedings for enforcement; and

(2) if a party seeking review under this Act applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that the information is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, and to be adduced upon the hearing in such manner and upon such terms and conditions as the court may deem proper; the Administrator may modify

administrative findings as to the facts, or make new findings by reason of the evidence so taken, and shall file with the court such modified or new findings and the Administrative order, with the return of such additional evidence.

SEC. 16. CITIZEN SUITS.

(a) In General.--- Except as provided in subsection (b) or (c) of this section, any person may commence a civil action on his own behalf---

(1) against any person (including (a) the United States, and (b) any other governmental instrumentality or agency, to the extent permitted by the eleventh amendment to the Constitution) who is alleged to be in violation of any permit, regulation, condition, requirement prohibition, or order which has become effective pursuant to this Act; or

(2) against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this Act which is not discretionary with the Administrator.

Any action under paragraph (a)(1) of this subsection shall be brought in the district court for the district in which the alleged violation occurred. Any action brought under paragraph (a)(2) of this subsection may be brought in the district court for the district in which the alleged violation occurred or the District Court of the District of Columbia. The district court shall have jurisdiction, without regard to the amount in controversy or the citizenship of the parties, to enforce the permit, regulation, condition, requirement, prohibition, or order, referred to in paragraph (1), to order such person to take such other action as may be necessary, or both, or to order the Administrator to perform the act or duty referred to in paragraph (2), as the case may be, and to apply any appropriate civil penalties under section 13.

(b) Actions Prohibited.---No action may be commenced under subsection (a)(1) of this section---

(1) prior to sixty days after the plaintiff has given notice of the violation to---

(A) the Administrator; and

(B) to any alleged violator of such permit, regulation, condition, requirement, prohibition, or order; or

(2) if the Administrator has commenced and is diligently prosecuting a civil or criminal action in a court of the United States to require a compliance with such permit, regulation, condition, requirement, prohibition, or order.

In any action under subsection (a)(1), any person may intervene as a matter of right. Any action respecting a violation under this Act may be brought under this section only in the judicial district in which such alleged violation occurs.

(c) Notice.---No action may be commenced under paragraph (a)(2) of this section prior to sixty days after the plaintiff has given notice to the Administrator that he will commence such action. Notice under this subsection shall be given in such manner as the Administrator shall be given in such manner as the Administrator shall prescribe by regulation.

(d) Intervention.---In any action under this section the Administrator, if not a party, may intervene as a matter of right.

(e) Costs.---The court, in issuing any final order in any action brought pursuant to this section or section 14, may award costs of litigation (including reasonable attorney and expert witness fees) to the prevailing or substantially prevailing party, whenever the court determines such an award is appropriate. The court may, if a temporary restraining order or preliminary injunction is sought, require the filing of a bond or equivalent security in accordance with Federal Rules of Civil Procedure.

(f) Other Rights Preserved.---Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any standard or requirement or to seek any other relief (including relief against the Administrator).

SEC. 17. SEPARABILITY.

If any provision of this Act ~~shall~~^{be} or the application of any provision of this Act to any person or circumstance^s is held invalid, the application of such provision to other persons or circumstances, and the remainder of this Act, shall not be affected thereby^x.

SEC. 18. RELATIONSHIP TO OTHER LAWS.

(a) Nothing in this Act shall be construed to alter or affect the ~~authority~~^{authority} of the Administrator under the Clean Air Act or the Toxic Substances Control Act, or ~~to affect~~ the authority of any other department, agency, or instrumentality of the United States under any provision of law, to promulgate or enforce any requirement respecting control of any substance, practice, process, or activity for purposes of protecting the ~~statosphere~~^{stratosphere} or ozone in the stratosphere.

(b) Nothing in this Act shall preclude or deny any State or political subdivision thereof from adopting or enforcing any requirement respecting the control of any substances, practice, process, or activity for the purposes of protecting the stratosphere or ozone in the stratosphere.

SEC. 19. AUTHORITY OF ADMINISTRATION.

The Administrator is authorized to prescribe such regulations as are necessary to carry out this Act.

887 7360
Lorne Beed

SENATOR ALBERT GORE
Montcalm Hotel
Great Cumberland Place
London
FAX: 44-1-724-9180

Dear Senator:

The staff has developed some talking points for you to include in future discussions of the issues under consideration at the conference. Those points are:

I. PRESENT RESPONSE

In response to the scientific findings in Antarctica (British Antarctic survey team), the Arctic (the international team), and the Northern Hemisphere (last Spring's NASA Ozone Trends Panel findings that depletion is occurring over the Northern Hemisphere), an accelerated (relative to the Montreal Protocol) ban on the production of chemicals that destroy stratospheric ozone, principally the CFCs, has been proposed by the EC, the U.S., and other countries (e.g., Sweden's new law, the world's most aggressive, will cut CFC emissions in half by 1991, and eliminate them by 1995 -- but Sweden consumes only 0.5% of world's CFCs; Canada has announced a ban to take effect over the next ten years).

II. THE NEED FOR ADDED RESPONSE -- PRUDENT STEPS THAT SHOULD APPEAL TO COMMON SENSE

These production bans -- and I have called for a production ban within five years -- are only one part of the equation. The second part of the equation, one which has been largely overlooked, involves the immediate steps that we can take to halt the needless discharge of these chemicals to the environment. This second part of the equation, which I will outline in a moment, is -- I emphasize -- probably the easiest to justify in terms of simple common sense.

o Why a need for additional response? Well, for example, in the U.S. alone, one study shows that some 24,000 new cases of the two most common types of skin cancer will occur (in Caucasians) from each 1% drop in stratospheric ozone. It is logical to presume that similar increases in skin cancer victims will be felt in Europe, Australia, and elsewhere, as well. If the cause of such an increase in cancer victims was a pesticide, or some other toxic waste, there's no doubt that the public would demand that its use be banned immediately. With stratospheric ozone depletion, because the environmental damage is invisible to everyone other than the scientists who are directly involved, there is more of a tendency to avoid addressing the problem as aggressively as I believe that we should.

Note that this argument does not even include the other damage that increased UV radiation from a depleted ozone layer will do to the environment -- suppression of the human immune system, damage to plant life (of the 200 or so plant species that have been tested so far, over two-thirds showed sensitivity to increased UV radiation; especially sensitive were beans, peas, squash, melon, and cabbage species), and damage to aquatic organisms.

o Therefore, I believe that we need to immediately institute safeguards in the use and handling of ozone-destroying chemicals, just as we would for other cancer-causing chemicals, in order to minimize their unnecessary release to the environment. This is the other part of the equation.

III. GORE'S ADDED RESPONSE -- THE OTHER PART OF THE EQUATION

(1) First, we need to institute effective CFC recycling programs. The best way to accomplish this would be through a sort of "CFC deposit fee." Recycling technology exists; we should maximize its use.

o The logic for this is simple: Between now and the time that a production ban is instituted, some amount of CFCs will be produced. For the sake of argument, let's imagine that 1 million pounds of CFCs will be produced during that period. Now, every single pound has only two possible final destinations: either it will be purposely destroyed through incineration (very little will meet this end), or it will eventually be released into the environment. We can extend the useful life of every pound of CFC -- before it meets one of those two final destinations -- by recycling. Therefore, fewer total pounds of new CFCs would have to be produced to meet a given level of demand.

o In addition, recycling programs would extend the availability of CFCs well beyond the production phaseout period -- remember, we have not produced any additional CFCs, just extended their useful life. This would allow owners of equipment using CFCs to attain a longer service life from that equipment before switching to alternative chemicals, or alternative technologies, without adding any net damage to the environment.

(2) In conjunction with this deposit/recycling program, we need to ban sales of "do-it-yourself" cans of freon, so that only those who buy CFCs in bulk (i.e., those who professionally service CFC-containing equipment, and would also have the tools to safely handle the CFCs) continue to purchase CFCs. The deposit fee would therefore be primarily a transaction between the CFC manufacturers and the equipment servicing industry, making the recycling program extraneous to the average consumer.

One example of the impact on the average consumer is as follows: If the consumer's auto air conditioner is leaking (25% of U.S. CFC emissions are from leaky auto air conditioners), then the consumer could not go to K-Mart and buy a can of freon (CFC) to recharge it -- CFCs that would soon leak to the environment. Instead, he/she would have to go to a service station (a bulk CFC buyer) to get it repaired and recharged. The service station would take care of recycling the CFCs...

3) Other items that would fall under this "second part of the equation" include:

- o Require that annual vehicle inspections include inspection of the auto air conditioner.

- o Require aircraft-quality hoses and fittings on all new-vehicle auto air conditioners.

- o Ban the sale of fire extinguishers (for consumer applications) that contain halons or other ozone-destroying chemicals.

I INTEND TO INTRODUCE LEGISLATION UPON MY RETURN FROM THIS CONFERENCE THAT CALLS FOR THE MEASURES THAT I'VE JUST OUTLINED, ADDRESSING THIS "OTHER PART OF THE EQUATION." THIS ONE-TWO PUNCH -- IMMEDIATE "SAFE HANDLING" OF OZONE-DESTROYING CHEMICALS COUPLED WITH A PRODUCTION PHASEOUT -- IS THE EFFECTIVE RESPONSE TO MINIMIZE THE DAMAGE TO EARTH'S OZONE LAYER.

IV. ADDITIONAL INTERNATIONAL RESPONSE

In addition, I want to encourage my fellow delegates to encourage their own countries to support an immediate worldwide ban on the use of CFCs in spray cans -- fully one-quarter of CFCs that are released to the environment today come from this application, which was banned in the U.S. a decade ago. This use is clearly one for which alternatives exist.

Good luck during the next two days of the conference.

Best regards,

Rick Adcock
Staff, Senator Albert Gore
Washington, DC
(202) 224-6458

M E M O R A N D U M

DATE: March 3, 1989

TO: Al

FROM: Rick

SUBJECT: Further Points from Intelligence-Gathering Today

- 1) EPA insiders feel that Bush will accept a Year 2000 phaseout. However, it may differ from the EC in terms of the phaseout schedule. This is because of item (2).
- 2) The EC nations could cut their CFC use by 50% simply by phasing out aerosol cans that STILL use CFCs. Recall that we phased out aerosol spray can applications of CFCs a decade ago, but the EC never did. EPA rumors are that the aerosol spray can cut by the EC may come within 2 years. The U.S., on the other hand, could never cut its use of CFCs by 50% in two years.
- 3) Ten percent of all of the CFCs that the U.S. has ever produced are out there in various applications right now.
- 4) On the CFC Deposit -- if you absolutely must use a figure, use \$5/pound. Also, be aware that we may be in a race on this deposit idea -- I have heard rumors that Baucus may be working on a deposit also.

REMARKS OF
SENATOR ALBERT GORE, JR.
TO THE
LONDON CONFERENCE ON SAVING THE OZONE LAYER

LONDON, MARCH 5-7, 1989

Prime Minister Thatcher, distinguished delegates, ladies and gentlemen. I am honored to have this opportunity to address this most important conference. Our actions here this weekend will be heard around the world for some time to come.

The nations represented here today are about to take brave and courageous steps to phase out and replace ozone-eating chlorofluorocarbons. But the most important consequence of our work may be to show the whole world that the global environment demands our immediate attention and stewardship. The message we must take home from London is that preserving the world environment is now mankind's greatest challenge -- and just as important, that we are rising to that challenge.

Two weeks ago, I chaired hearings in the U.S. Congress at which scientists from the Arctic ozone expedition presented their findings. Their advice was urgent and clear: to stop the destruction of the stratospheric ozone layer, we must act now, without delay.

The CFC phaseouts endorsed at this conference are an historic step in the right direction. I hope we can go still further. I do not believe that we can afford to wait another decade. I have introduced legislation in the U.S. Congress that requires a quicker phaseout, and intend to amend that legislation upon my return to call for a phaseout within five years. This week, I will also introduce new legislation that calls for the recycling and recapture of CFCs and other near-term steps to start reducing emissions right away. For example, I will call for a "CFC deposit," similar to deposits used in some states to encourage recycling of aluminum cans and glass bottles.

I applaud the work of this conference. I hope this will mark the beginning of a new decade of world environmental progress.

FOR IMMEDIATE RELEASE
Friday, March 3, 1989

Contact: Marla Romash
(202) 224-4944
(202) 547-0806 (H)

EUROPEAN CFC PHASEOUT DEADLINE TOO LATE, GORE SAYS
Outlines New Proposal to Address Current CFC Emissions

****Gore to serve as delegate to Thatcher Ozone Conf. This Wknd****

WASHINGTON -- The European Community's agreement to phase-out, by the year 2000, chemicals now destroying the earth's protective ozone shield waits too long to take urgently needed action, U.S. Sen. Al Gore, D-TN, said today, outlining a new proposal to immediately reduce emissions of the chemicals.

"Waiting until the year 2000 means will we be forced to wait decades, maybe even a century before the damage from these chemicals will be reversed," Gore said. "There is no reason to wait -- every year of delay implies an additional 5 to 10 years that these chemicals will remain in the atmosphere, destroying ozone. We've identified a problem. We even know the solution. It's time to act," said Gore, whose legislation calling for a phase-out within five years is now pending in Congress.

Gore will be in London this weekend as part of a five-member U.S. delegation to Prime Minister Margaret Thatcher's international conference on saving the earth's upper ozone layer. He will be the only member of Congress in the delegation.

"Even a phase-out in five years doesn't adequately address the problem because today -- and for the next five years -- we will continue to release these chemicals into our environment and tear away at the ozone shield that protects our planet and our people," Gore said. "We must start working today to stop the release of these chemicals into our environment."

"We need to act in the U.S., but the rest of the world must take action as well. Fully one-quarter of the global release of the chemicals destroying the ozone layer is still from aerosol spray cans, an application that was banned in the U.S. years ago. At a minimum, that application should be banned around the world."

(MORE)

Sen. Gore/March 3/page 2

Gore, the author of the World Environment Policy Act of 1989, which includes the five-year phase-out, outlined new legislation he will introduce immediately upon his return from London to reduce the threat presented by current emissions of chlorofluorocarbons, the chemicals principally responsible for ozone depletion.

"As much as 10 to 15 percent of the damaging chemicals that the U.S. has produced in the last half-century are still out there, in our environment, in our everyday lives, being used in air conditioners, refrigerators, and numerous other applications," Gore said. "There are steps we can take now to recycle, recapture, and control the damage being done by these chemicals. As we work for long-term reductions and look toward the future, we cannot lose sight of the world we live in today," Gore said.

Gore's new legislation will:

- o .Encourage recapture and recycling of CFCs by instituting a form of "CFC Deposit," affecting mainly the CFC producers and those who service CFC-containing equipment, and not the average consumer.

"For example, when refrigerators, air conditioners, and other equipment are serviced or disposed of, we should minimize the release of CFCs by promoting recapture and recycling," Gore said. "The technology exists, and the industry has taken steps toward this end."

- o Ban the sale of "do-it-yourself" cans of freon, used to recharge auto air conditioners, and recommend aircraft-quality hoses and fittings as standard equipment on auto air conditioners.

- o .Promote the use of alternative technologies to manufacture rigid insulation and soft foam without CFCs.

- o .Promote the use of alternative technologies for electronics cleaning applications.

##

~~1 SECTION 1. SHORT TITLE.~~

2 ~~This Act may be cited as the "Ozone Protection and~~
 3 ~~CFC Reduction Act of 1989".~~

4 ~~SEC. 2~~ **TITLE II**
EXCISE TAX ON SALE OF CHEMICALS WHICH DE-
 5 **plete the ozone layer and of products**
 6 **containing such chemicals.**

7 (a) IN GENERAL.—Chapter 38 of the Internal Revenue
 8 Code of 1986 (relating to environmental taxes) is amended by
 9 adding at the end thereof the following new subchapter:

10 **"Subchapter D—Ozone-Depleting**
 11 **Chemicals, Etc.**

"Sec. 4681. Imposition of tax.

"Sec. 4682. Definitions and special rules.

12 **"SEC. 4681. IMPOSITION OF TAX.**

13 **"(a) GENERAL RULE.—**There is hereby imposed a tax
 14 **on—**

15 **"(1) any ozone-depleting chemical sold or used by**
 16 **the manufacturer, producer, or importer thereof, and**

17 **"(2) any imported taxable product sold or used by**
 18 **the importer thereof.**

19 **"(b) AMOUNT OF TAX.—**

20 **"(1) OZONE-DEPLETING CHEMICALS.—**

21 **"(A) IN GENERAL.—**The amount of the tax
 22 **imposed by subsection (a) on each pound of ozone-**
 23 **depleting chemical shall be an amount equal to—**

24 **"(i) the base tax amount, multiplied by**

“(ii) the ozone-depletion factor for such chemical.

“(B) BASE TAX AMOUNT.—Except as provided in subsection (c), the base tax amount for purposes of subparagraph (A) with respect to any sale or use during a calendar year is the amount determined under the following table for such calendar year:

Calendar year:	Base tax amount:
1990.....	\$1
1991.....	2
1992.....	3
1993.....	4
1994 or thereafter.....	5.

“(2) IMPORTED TAXABLE PRODUCT.—

“(A) IN GENERAL.—The amount of the tax imposed by subsection (a) on any imported taxable product shall be the amount of tax which would have been imposed by subsection (a) on the ozone-depleting chemicals used as materials in the manufacture or production of such product if such ozone-depleting chemicals had been sold in the United States for use in the manufacture or production of such imported taxable product.

“(B) CERTAIN RULES TO APPLY.—Rules similar to the rules of paragraphs (2) and (3) of section 4671(b) shall apply.

1 “(c) INFLATION ADJUSTMENT OF BASE TAX
2 AMOUNT.—

3 “(1) IN GENERAL.—In the case of any article
4 sold or used in a calendar year after 1990, the base
5 tax amount applicable to such year under subsection (b)
6 shall be the amount (determined by the Secretary)
7 equal to—

8 “(A) the dollar amount specified in subsec-
9 tion (b)(1)(B) for such calendar year increased by

10 “(B) the product of—

11 “(i) the dollar amount so specified, and

12 “(ii) the inflation adjustment for such
13 calendar year.

14 “(2) INFLATION ADJUSTMENT.—

15 “(A) IN GENERAL.—For purposes of para-
16 graph (1), the inflation adjustment for a calendar
17 year is the percentage (if any) by which—

18 “(i) the applicable price index for the
19 preceding calendar year, exceeds

20 “(ii) the applicable index for 1989.

21 “(B) APPLICABLE PRICE INDEX.—For pur-
22 poses of subparagraph (A), the applicable price
23 index for any calendar year is the average of the
24 producer price index for basic inorganic chemicals
25 (as published by the Secretary of Labor) for the

months in the 12-month period ending on September 30 of such calendar year.

“(3) ROUNDING.—If any increase determined under paragraph (1) is not a multiple of 10 cents, such increase shall be rounded to the nearest multiple of 10 cents (or if such increase is a multiple of 5 cents, such increase shall be increased to the nearest multiple of 10 cents).

“SEC. 4682. DEFINITIONS AND SPECIAL RULES.

“(a) OZONE-DEPLETING CHEMICAL.—For purposes of this subchapter—

“(1) IN GENERAL.—The term ‘ozone-depleting chemical’ means any substance—

“(A) which, at the time of the sale or use by the manufacturer, producer, or importer, is listed as an ozone-depleting chemical by the Secretary for purposes of this subchapter, and

“(B) which is manufactured or produced in the United States or entered into the United States for consumption, use, or warehousing.

“(2) DETERMINATION OF SUBSTANCES ON LIST.—A substance shall be listed under paragraph (1) if—

“(A) the substance is specified in the list under paragraph (3), or

1 “(B) the Secretary determines that the sub-
 2 stance is known, or may reasonably be anticipat-
 3 ed, to cause or contribute to atmospheric or cli-
 4 matic modification, including stratospheric ozone
 5 depletion.

6 If, after the date of the enactment of this section, a
 7 substance not listed under paragraph (1) becomes sub-
 8 ject to regulation under a treaty which regulates
 9 ozone-depleting substances and to which the United
 10 States is a party, the Secretary shall list such sub-
 11 stance under paragraph (1) not later than the day 60
 12 days after such substance became so subject.

13 “(3) INITIAL LIST OF OZONE-DEPLETING CHEMI-
 14 CALS.—

“Common name	Chemical nomenclature
CFC-11	trichlorofluoromethane
CFC-12	dichlorodifluoromethane
CFC-22	chlorodifluoromethane
CFC-113	trichlorotrifluoromethane
CFC-114	1,2-dichloro-1,1,2,2-tetrafluoroethane
CFC-115	chloropentafluoroethane
Carbon tetrachloride	tetrachloromethane
Methyl chloroform	1,1,1-trichloroethane
Methylene chloride.....	dichloromethane
Halon-1211	bromochlorodifluoromethane
Halon-1301	bromotrifluoromethane
Halon-2402	dibromotetrafluoroethane.

15 “(4) MODIFICATIONS TO LIST.—The Secretary
 16 may add substances to or remove substances from the
 17 list under paragraph (3) (including items listed by
 18 reason of paragraph (2)(B)) as necessary to carry out
 19 the purposes of this subchapter.

“(b) OZONE-DEPLETING FACTOR.—

“(1) IN GENERAL.—For purposes of this subchapter, the term ‘ozone-depleting factor’ means, with respect to an ozone-depleting chemical, the numerical value assigned by the Secretary to such chemical which represents the ozone depletion potential of such chemical, on a mass (per kilogram) basis, as compared with the ozone depletion potential of CFC-11.

“(2) INITIAL OZONE-DEPLETING FACTORS.—

“(A) IN GENERAL.—Except as provided in subparagraph (B), in the case of an ozone-depleting chemical specified in the following table the ozone-depleting factor shall be as follows:

“Ozone-depleting chemical:	“Ozone-depleting factor:
CFC-11.....	1.0
CFC-12.....	1.0
CFC-22.....	0.05
CFC-113.....	0.8
CFC-114.....	0.7
CFC-115.....	0.6
carbon tetrachloride.....	1.06
methyl chloroform.....	0.1
methylene chloride.....	0.1
halon-1211.....	3.0
halon-1301.....	10.0
halon-2402.....	6.0

“(B) MODIFICATIONS TO FACTORS.—The Secretary may, as necessary to carry out the purposes of this subchapter, prescribe ozone-depleting factors which will apply in lieu of the ozone-depleting factors specified in subparagraph (A).

1 “(c) IMPORTED TAXABLE PRODUCT.—For purposes of
2 this subchapter—

3 “(1) IN GENERAL.—The term ‘imported taxable
4 product’ means any substance (other than an ozone-
5 depleting chemical) if any ozone-depleting chemical
6 was used as material in the manufacture or production
7 of such substance.

8 “(2) DE MINIMIS EXCEPTION.—The term ‘im-
9 ported taxable product’ shall not include any substance
10 specified in regulations prescribed by the Secretary as
11 containing a de minimis amount of ozone-depleting
12 chemicals. The preceding sentence shall not apply with
13 respect to any substance if any ozone-depleting chemi-
14 cal is used for purposes of refrigeration or air condi-
15 tioning, creating an aerosol or foam, or electronic com-
16 ponents.

17 “(d) EXCEPTION FOR RECYCLING.—No tax shall be
18 imposed by section 4681 on any ozone-depleting chemical
19 which is diverted or recovered in the United States as part of
20 a recycling process (and not as part of the original manufac-
21 turing or production process). 7

22 “(e) OTHER DEFINITIONS.—For purposes of this sub-
23 chapter—

1 “(1) IMPORTER.—The term ‘importer’ means the
2 person entering the article for consumption, use, or
3 warehousing.

4 “(2) UNITED STATES.—The term ‘United States’
5 has the meaning given such term by section 4612(a)(4). 2

6 “(f) SPECIAL RULES.—

7 “(1) FRACTIONAL PARTS OF A POUND.—In the
8 case of a fraction of a pound, the tax imposed by sec-
9 tion 4681 shall be the same fraction of the amount of
10 such tax imposed on a whole pound.

11 “(2) DISPOSITION OF REVENUES FROM PUERTO
12 RICO AND THE VIRGIN ISLANDS.—The provisions of
13 subsections (a)(3) and (b)(3) of section 7652 shall not
14 apply to any tax imposed by section 4681.” ?

15 “(b) CLERICAL AMENDMENT.—The table of subchapters
16 for chapter 38 of such Code is amended by adding at the end
17 thereof the following new item:

 “Subchapter D. Ozone-depleting chemicals, etc.”

18 “(c) EFFECTIVE DATE.—The amendments made by this
19 section shall take effect on January 1, 1990.

20 SEC. 3. FLOOR STOCKS TAX.

21 “(a) IMPOSITION OF TAX.—On any ozone-depleting
22 chemical specified in section 4682(a)(3) of the Internal Reve-
23 nue Code of 1986 which on January 1, 1990, is held by a
24 dealer for sale, there is hereby imposed a floor stocks tax in
25 an amount equal to the tax which would be imposed under

1 section 4681 of such Code on such chemical if such chemical
2 were sold during 1990 by the manufacturer thereof.

3 (b) APPLICATION OF OTHER LAWS.—All other provi-
4 sions of law, including penalties, applicable with respect to
5 the taxes imposed by section 4681 of such Code shall apply
6 to the floor stocks tax imposed by this section.

7 (c) DUE DATE OF TAX.—The taxes imposed by this
8 section shall be paid before February 14, 1990.

9 (d) DEFINITIONS.—For purposes of this section—

10 (1) DEALER.—The term “dealer” includes a
11 wholesaler, jobber, distributor, or retailer.

12 (2) HELD BY A DEALER.—An article shall be
13 considered as “held by a dealer” if title thereto has
14 passed to such dealer (whether or not delivery to the
15 dealer has been made) and if for purposes of consump-
16 tion title to such article or possession thereof has not
17 at any time been transferred to any person other than
18 a dealer.

○

M E M O R A N D U M

DATE: April 24, 1989

TO: Al

FROM: Rick

SUBJECT: Saving the Ozone Layer, Part II

A three-part bill is possible, and -- if you like what you see here -- I will go all-out to have it ready by the beginning of next week, in order to "piggyback" it on the press stories surrounding the Montreal Protocol meetings. This (three parts to the bill) assumes that we incorporate the 5-year phaseout into this bill. This depends on the course that we decide on for S.201. If we leave the 5-year phaseout out of this new bill, then it becomes a two-part bill. I'd like to put it in here, and amend S.201 to include this new bill (the "Both" option from today's earlier memo).

TITLE I. Service Regulations, Labeling, and Phaseout of Certain CFC- and Halon-Containing Consumer Products; Call for an EPA Study of a CFC Deposit.

- Regulation of mobile air conditioner servicing; labeling and phaseout of small CFC recharge cannisters.
- Labeling and phaseout of halon fire extinguishers for consumer applications.
- Regulation, labeling, and phaseout of nonessential CFC-containing consumer products (e.g., silly string, noise horns, cleaning sprays.)
- Call for an EPA study of a chlorofluorocarbon deposit fee (a call for an EPA study of how to do this, in order to encourage recapture and recycling; a type of CFC "bottle bill.").

TITLE 2. Excise Tax on Sale of Chemicals which Deplete the Ozone Layer and of Products Containing Such Chemicals.

- (This is H.R. 1112, introduced by Rep. Stark, with 59 co-sponsors so far; we will be the Senate sponsor.)

- Amends the Internal Revenue Code of 1986 to impose a manufacturer's excise tax on the sale of chemicals which deplete the ozone layer, and of products containing such chemicals. Revenues are not targeted.

According to a Joint Comm. on Taxation study done for Stark, this measure would raise 0.4 billion in 1989, 0.8 billion in 1990, 1.1 billion in 1991, 1.3 billion in 1992, 1.5 billion in 1993.

We might consider including a provision for a "windfall profits" tax here also, since the price of CFCs should rise substantially as supplies fall during the phaseout period.

TITLE 3. Production Phaseout of Substances that Deplete the Stratospheric Ozone Layer.

- This is the CFC/halon production phaseout from S.201, altered to reflect a 5-year phaseout period (i.e., instead of saying "by 1996," it will now say "within 5 years of enactment of this bill.")

Recall that the "meat" of Baucus' CFC/ozone legislation introduced March 3 is a CFC "surcharge" on each pound of CFC produced; \$100 million of its revenues go into an "Ozone Trust Fund" to be used to fund the search for substitutes, the rest goes to Treasury. The Chafee and Baucus "twin" bills are the chief Senate competition -- both were introduced together, with Chafee the only cosponsor for Baucus, Baucus the only cosponsor for Chafee. The Chafee twin is basically a production phaseout, with minor provisions calling for recycling. Our (three-title) bill would do it all, in somewhat different ways from Baucus and Chafee, with some additions such as banning nonessential consumer products, CFC deposit study, and others; in addition, there's a possibility that I'll also be able to include a "safe substitutes" provision (worker protection from dangerous substitutes that user industries could resort to as current chemicals are phased out) -- there's a House hearing on safe substitutes tomorrow that I hope to draw from, in addition to outside help.

* FEDS. TO CREATE MKT. FOR ALT. A/C
+ POTENTIAL USES —
AND SOLVENTS —

Gov. SAYS — AS SOON AS EQUIP. AVAILABLE,
WE BUY OZONE-BENIGN
TECHNOLOGIES —

+ USE OF / —→ LIST CURRENT ALTERNATIVES
—→ ESTIMATE TIMETABLE TO DO IT
REM: FSA 'blue boys'

* ADD BANK OF CFL-BORN CAFETERIA
ITEMS OF FEDS

~~7~~
PBS Panel on G. hose in ~~Nashville~~ 5/14
* Louisville
Gene Matthews Commencement

TELEFAX COVER PAGE

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OFFICE OF TECHNOLOGY ASSESSMENT
Washington, DC 20510-8025
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PHOTOCOPY PRESERVATION

March 7, 1989
Washington, D.C.

Dear Rick:

I looked through the proposed Stratospheric Ozone Protection Act of 1989. It looks OK, though I must admit that I only glanced at it. The area which really needs to be beefed up concerns refrigerators.

I have the following suggestions:

HOUSEHOLD REFRIGERATORS

Labeling Requirement:

EX-151 THX - FinAnket

All refrigerators (household and commercial) should be labelled with an indicator of how much CFC is in the insulation and how much is in the working fluid. This should be expressed in terms of weight, and in terms of weighted ozone depletion potential (weight multiplied by ozone depletion factor). The weighted ozone depletion potential should be provided for the foam, the working fluid, and for the two combined. It is important to break the totals out, as the recoverability of the CFCs is the working fluid probably is much easier than is the case with the foam. I might add that this labelling requirement will make it much easier to compute and to recover the deposit, since you will know exactly how much CFC the product contains.

Information:

The Department of Energy or the Environmental Protection Agency (or a combination of the two) should regularly conduct a survey of household refrigerators sold in the U.S. All brands and models should be listed, with both their energy efficiency and weighted ozone depletion potential.

The same agencies should immediately conduct a worldwide survey of commercially available household refrigerators. The primary objective would be to identify superior technologies overseas; and to identify those countries which appear to lag furthest behind.

Research, Development and Deployment

It is urgent that the developed countries quickly develop designs for refrigerators which make sense in developing countries. This should be a matter of great national priority, even if it means running head on into the interests of the appliance manufacturers here and abroad. It would be useful to call for the formation of

a national group to develop designs for household refrigerators which are energy efficient, which do not use CFCs, and which can use a variety of fuels. Especially important in this regards is the ability to operate off of something other than AC electric power. Special emphasis should be placed on absorption cycles or other cycles capable of running off of externally supplied heat (from natural gas, for example).

Section 8.

The chlorofluorocarbon fee should be based on the weighted ozone depletion value of the compound. Hence, a pound of CFC-11 would have an ozone weighted ozone depletion value of 1 (1 lb x depletion factor of 1). One pound of CFC-22 would have a factor of .05.

I suggest that the deposit also apply to the foam in household refrigerators, since that is where 80-85 percent of the CFCs are in household refrigerators. This would encourage the development of alternative insulators; and design revisions which would facilitate the removal and reuse of the insulation.

If you decide not to include the foam as subject to the deposit rule, I suggest that the deposit be much higher for household refrigerators. The largest household refrigerators have about 20 ounces of CFC-12 in their working fluid. Your deposit would only amount to \$6.25 and would not make much of a difference. A deposit of \$25 dollars / pound would be more appropriate. But if you include the foam, a \$5 deposit per pound would amount to over \$30; that begins to be noticed and when combined with the increased cost of the compound could really make a difference in consumer behavior. You might even consider a \$10/deposit per pound if you really want to be aggressive.

TRADE RESTRICTIONS

The trade restrictions associated with the Montreal Protocol should be immediately enforced by the United States; we should not wait for the deadline provided by the Protocol. The lists called for under Paragraph 3 and Paragraph 4 of Article 4 should be drawn up within 12 months and trade restrictions should be imposed on those products six months after that.

That's it. for now big buddy.

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Note 1 page 7

§7(a) bans sale of products that will leak more than 5% of their CFCs. But as presently written, it does not provide for any governmental certification that a product does in fact meet the requirement. A manufacturer could simply reach his own conclusion that losses will be under 5%. How is it to be verified? (You could require certification by secretary, or posting of a bond)

Likewise, regarding clause (2), what must a manufacturer actually do to "assur[] the availability and actual use" of recycling equipment? A refrigerator manufacturing company does not handle service; other companies do. I think you need to create a separate set of requirements for the service industry, namely that all service on or disposal of equipment containing CFCs be performed with recycling equipment. That would parallel the auto recycling provisions (more on that later), but the actual specifications for recycling equipment and practices would be a little different.

Note 2, page 7

The deposit fee is a neat idea. But we need to work out bugs.

(1) Why only coolant? Why not electronics solvent, halons, etc.?

(2) If it's only coolant, how can you know what purpose a pound of CFC is sold for?

(3) Who holds the deposit? Not Dupont, I hope. A special fund should be set up like under some state bottle bills.

(4) Since there'll be a surplus,* what can be done with it?

EPA should be authorized to support cooperative research projects into alternatives (e.g., contracts with refrigeration companies leading them to R&D in CFC-free, high efficiency refrigerators.

(5) Is \$5/lb too steep? EPA would urge a graduated fee. But different prices over time would raise difficulties when dealing with deposit refunds.

* from deposits not redeemed, or just because of the delay between deposit and redemption.

Note 3, page 8

Re: Mobile Air Conditioning

Attached is a copy of a Maryland state bill on mobile a/c recycling, plus a letter from me and others on consensus language for amending it. I suggest you use the language of the Maryland bill, as amended in the letter.

Problem: You can't simply require the states to issue the regulation referred to in paragraphs (a) and (b). Federalism considerations. That is why the Clean Air Act is set up so that certain activities are federally regulated, or simply just prohibited, unless a state chooses to take over the function described. Then the EPA approves or disapproves the state's program. So if you want state implementation, you need to rewrite it so that a/c service is prohibited by a date certain (1/1/91 is ok) unless each state has submitted regulations, and the Secretary (Administrator?) has approved them, under which each service operation is required to get the equipment.

The alternative (which is simpler to draft) is direct federal regulation.

Note 4, page 8

^{Dna}
~~ANSUL~~, the large manufacturer of fire protection equipment (including halons), is on record as agreeing that consumer use halon extinguisher are unnecessary.

You should make clear in a statement accompanying introduction that you recognize the validity of using hand-held halon units in special situation; such as airplanes. But not for general home use.

Note 5 page 9

Add a section banning use of CFCs in hospital sterilization, as follows:

(1) Establish a commission (balanced membership including scientists expert in ozone depletion and members of the public concerned about it) to study and report within one year on ability of hospitals to substitute alternative sterilants.

(2) Bar use of CFCs in hospital sterilants after January 1, 1992, unless Secretary (Administrator?) specifically finds no efficacious alternative.

ENVIRONMENTAL DEFENSE FUND

257 Park Avenue South
New York, NY 10010
(212) 505-2100

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**- - - U R G E N T - - -
PLEASE DELIVER TODAY**

EDF Facsimile Telephone Number:
212-505-2100, Ext. 480

TO: Rich Adlock
FAX PHONE NUMBER: 202-224-0580
COMPANY/OFFICE: _____
FROM: Sarah Clark
DATE: 3/10/89
TIME: _____
CHARGE TO: 167
TOTAL NUMBER OF PAGES
INCLUDING THIS SHEET: (4)

If you do not receive all the pages as indicated,
please contact Selina Hamid at 212-505-2100.

NOTES: Sorry for the tardiness of
our answers. I hope it
is not too late - DW-Sarah



1616 P Street, NW
Washington, DC 20036
(202) 387-3500

1405 Arapahoe Avenue
Boulder, CO 80302
(303) 440-4901

5655 College Avenue
Oakland, CA 94618
(415) 658-8008

1108 East Main Street
Richmond, VA 23219
(804) 780-1297

128 East Hargett Street
Raleigh, NC 27601
(919) 821-7793

ENVIRONMENTAL DEFENSE FUND

257 Park Avenue South
New York, NY 10010
(212) 505-2100

MEMORANDUM

To: Rick Adcock
From: Sarah Clark
Date: March 10, 1989
Re: Draft CFC recycling bill

Although these comments are late, I hope you will still be able to consider them.

Section 4. Definitions

(10) I suggest that this definition be rewritten to say..

"The term "chlorocluorocarbon recycling equipment" means equipment that is certified by Underwriters Laboratories for the extraction and purification of chlorofluorocarbon coolants from mobile air conditioners or equipment that meets Air Conditioning and Refrigeration Institute (ARI) purity standards for the extraction and purification of chlorofluorocarbon coolants from stationary air conditioners, refrigerators and freezers."

Section 6. Reporting Requirements

Reporting requirements are going to be extremely burdensome to federal or state agencies that are responsible for receiving and maintaining the paperwork generated by such regulations. It is likely that this burden will detract these agencies from other more important and critical responsibilities that pertain to the regulation of CFCs. It could be counterproductive to have a requirement that is extremely resource intensive deter agencies from carrying out other policies or programs that may be more effective in limiting releases of CFCs and facilitating the introduction on substitute chemicals.

Section 7. Limitations on the Release of Listed Chemicals

(a) of this section will be very difficult to enforce. Although it may be a worthwhile goal to have "all persons who manufacture, process, distribute or use CFCs...do so in a "totally enclosed" manner", there will be a substantial feasibility problem associated with it because of the difficulty in demonstrating compliance. This will be especially true for those products or items, such as rigid urethane foam, that release CFCs over their entire lifetime. These foams have an approximate 50 year lifespan, during which CFCs slowly leak out of the closed cells. Automotive air conditioners also are inherently leaky by their very design. It will be very difficult to

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MAR-10-89 FRI 16:55 EDF-NY

P. 03

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Page 2

guarantee that 5% loss over their entire lifetime is possible. Also, are medical CFC sterilants left out on purpose? They are a considerable source of CFC emissions and should be substituted as soon as possible with alternative chemicals or technologies. Such an exemption may delay substitution.

The wording of (b) is confusing. Persons who manufacture, process, or distribute CFCs do not have control over the installation of servicing apertures on a/c or refrigeration units or the availability of refrigerant recycling equipment. Only those who "use" a listed chemical (presumably this refers to air conditioning and refrigeration unit manufacturers) will be able to undertake such measures.

Section 8. Establishment of a CFC Deposit Fee

If a tax or fee is implemented, it must be carefully structured so that the deposits are not placed in the wrong hands. If any deposits are collected, they should be collected by state governments who could use the monies to encourage investments in large-scale, off-site CFC recycling. Off-site recycling is presently non-existent. It doesn't make sense to institute mandatory recovery for delivery back to the producer or seller of refrigerant if they are not equipped to handle it.

This provision is a disincentive for on-site recycling. If a user of refrigerant only gets his/her money back if the refrigerant is returned to the provider, then it would be to his/her disadvantage to recover and recycle refrigerant on-site. In other words, it would only make sense for such persons to recover and not recycle. This is in conflict with Section 9.

If this provision is directed at recovering CFCs from the disposal of vehicles or refrigeration units, it would make more sense to place a deposit on the unit itself, not the refrigerant. For example, if a consumer purchases a refrigerator or car, the amount of coolant in those units is small enough that a refund on the deposit 10 years later would not be worth very much. If a deposit was collected on top of the price of those units, it should go into a fund for establishing a central recovery facility (most likely by a private company) through investment incentives, so that those who recover CFCs from old cars, air conditioners, refrigerators and chillers at disposal could send it to a facility for recycling or destruction purposes.

Section 9. Mobile Air Conditioners

The enforcement issue is missing in this provision. Would it be left up to the states? This purchase requirement should be contingent upon receipt of a state or local business license, or professional liscence if possible.

Section 13. Disposal of Ozone-Destroying Chemicals

Recovery of refrigerants at disposal would be more likely to actually occur if salvagers had an economic incentive to do so. The way provision 13 (a)(3) is written, state governments would find themselves in the position of accepting all white goods that contain refrigerants, because it is unlikely

that salvagers would care to be licensed to remove refrigerant for removal's sake. States need to assist salvagers in refrigerant recovery through economic incentives, i.e. make it worth their while to pump coolant out and ship it to a reclaimer for recycling or destruction. This idea goes back to Section 8.

Suggested Additional Sections

This bill should also direct states to sponsor training and education workshops for users of CFCs, which would include coolant service personnel, so to promote recovery and recycling and safe use of equipment and alternative chemicals. These workshops should include an overview of the stratospheric ozone depletion problem, the framework of international agreements, important federal regulations, refrigerant recovery equipment and their use, future substitute chemicals, and any applicable state programs. The purpose of these workshops is to educate users of refrigerants about the economic opportunities for refrigerant recycling as the price of refrigerants rises in response to federal regulations and the introduction of alternative chemicals into the marketplace. As citizens become more interested in and familiar with ozone-depletion and problems associated with using CFCs, these workshops will serve to inform such persons about opportunities associated with refrigerant recycling.

Best management practices written and adopted by servicing industry trade associations should also be adopted by states to assure maximum compliance with and implementation of such practices.

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MOBILE A/C

*Natural Resources
Defense Council*

1350 New York Ave., N.W.
Washington, DC 20005
202 783-7800

March 6, 1989

Hon. Brian E. Frosh
House of Delegates
2208 House Office Building
Annapolis, MD 21401-1991

Dear Del. Frosh:

On behalf of the organizations and individuals listed below who have been involved in the development of the consensus standard announced on January 27, 1989, for the recovery and recycling of chlorofluorocarbon (CFC) refrigerant during the service of motor vehicle air conditioners, we are writing to offer comments on H.B. 1139.

We share your concern over the danger to public health and the environment due to depletion of the stratospheric ozone layer by CFCs. We also recognize that motor vehicle air conditioning is the single largest source of CFC leakage, accounting for about one fourth of all CFC use in the U.S. That is why we worked together with the Environmental Protection Agency to develop and support the program announced on January 27, 1989, to facilitate the use of recovery and recycling equipment in air conditioner service.

We support the objectives of H.B. 1139. We agree that the service of auto air conditioners should be required to be performed with recovery and recycling equipment in accordance with the consensus standard. In our view, however, the bill needs a number of modifications to fully and practically carry out the intent of the consensus standard. With these modifications, we would be pleased to endorse H.B. 1139 and to urge its enactment in this session of the Maryland General Assembly.

The specific changes we recommend are set forth in the attachment to this letter. We look forward to working with you on this important bill.

Sincerely yours,

David D. Doniger
Senior Attorney, Natural Resources Defense Council

Thomas Banghart
Treasurer, Mobile Air Conditioning Society
West Chester Pike & State Road
Upper Darby, PA 19082

Simon Oulouhoujian, Sr.
President, Mobile Air Conditioning Society
West Chester Pike & State Road
Upper Darby, PA 19082

Ward Atkinson
Chairman, Society of Automotive Engineers R-12 Task Force
Sun Test, Inc.
2918 North Scottsdale Road
Scottsdale, AZ 85251

Kenneth W. Manz
Robinair Division
SPX Corporation
Robinair Way
Montpelier, OH 43543-0193

Liz Cook
Friends of the Earth/Environmental Policy Institute
530 7th Street SE
Washington, DC 20003

Gary M. Huggins
Coordinator, Coalition For Safer, Cleaner Vehicles
321 D Street, NE
Washington, DC 20002

Don Randle
President, Automotive Service Assoc.
321 D Street, NE
Washington, DC 20002

RECOMMENDED MODIFICATIONS TO H.B. 1139

Definitions (§ 2-701)

1. "Air conditioning equipment" (pg. 2, lns. 14-15)

For the sake of clarity, "air conditioning equipment" should be defined directly in this bill. The cross-referenced definition is satisfactory, but we urge you to repeat it in this bill. Definition (A) should then read:

"'Motor vehicle air conditioner' means mechanical vapor compression refrigeration equipment used to cool the driver's or passenger compartment of any motor vehicle."

2. "CFCs" (pg. 2, lns. 16-29)

The listing of all eight compounds covered by the Montreal Protocol is not necessary, because at present the only one usable in auto air conditioners is CFC-12.

While CFC-12 ultimately will be replaced with one or more alternatives, those alternatives may also have environmental problems. For example, the most frequently mentioned alternative (FC-134a), though not an ozone depleter, is a greenhouse gas -- a gas capable of absorbing infrared radiation and exacerbating the global greenhouse effect. As such, it should be subject to recycling. Thus, we believe it is important to signal now that indiscriminate release of such alternatives is not acceptable and that recycling should continue.

To this end, we recommend that definition (B) be changed to refer to "refrigerant," rather than to "chlorofluorocarbon (CFC)." The definition would then read:

"'Refrigerant' means dichlorodifluoromethane (also known as chlorofluorocarbon-12, CFC-12, or R-12) or any substitute refrigerant used in motor vehicle air conditioning equipment."

3. "Recycling Equipment" (pg. 2, lns. 30-33 -- pg. 3, lns. 1-4)

In order to assure that the requirements for recycling equipment are consistent from state to state, the definition of CFC recycling equipment needs to refer precisely to the consensus standard we have developed. We suggest you drop subsection (2), referring to standards established by the Department, and rewrite section (D) as follows:

"(D) 'Approved refrigerant recycling equipment' means equipment that is certified by Underwriters Laboratories (or another independent standards testing organization) to meet the Society of Automotive Engineers standard applicable to equipment for the extraction and reclamation of refrigerant from motor vehicle air conditioners (SAE Standard J-1990 or revisions thereof). Equipment purchased before the commencement of certification by Underwriters Laboratories shall be considered approved if it is substantially identical to a model which is certified before January 1, 1991."

4. "Properly Using" and "Properly Trained and Certified"
(new definitions)

There should be an additional definition to establish the requirement to "properly use" CFC recycling equipment. Proper use should be defined in terms of the Society of Automotive Engineers standard J-1989, which will establish the appropriate service routine for making repairs with the new equipment. We suggest that the definition read as follows:

"(E) 'Properly using' approved refrigerant recycling equipment means using such equipment in conformity with the Society of Automotive Engineers standard establishing the recommended service procedure for containment of R-12 refrigerant (SAE Standard J-1989 or revisions thereof)."

There should also be a definition establishing training and certification requirements for persons employed in air conditioner service. It should read as follows:

"(F) 'Properly trained and certified' means that a person authorized to perform any service on a motor vehicle air conditioner involving refrigerant for such air conditioner has been trained and certified in the proper use of approved refrigerant recycling equipment, as specified in SAE Standard J-1989 or revisions thereof, under the certification program of Automotive Service Excellence (ASE) or under a similar program such as training and certification program of the Mobile Air Conditioning Society (MACS)."

Prohibitions and Deadlines (§ 2-702)

We share your objective of implementing this recycling program as quickly as possible. Because of the leadtime needed to produce the necessary number of recycling machines, however, it is not feasible to deploy them in every service shop by January 1, 1990. We suggest the effective date be January 1, 1991, with a provision allowing smaller shops up to one additional year.

Smaller shops should be defined as ones which service fewer than 100 air conditioners in 1990. If a shop certifies to the Department that it meets this condition, then it would be authorized to take until January 1, 1992 to acquire and commence using the equipment.

We believe January 1, 1991, is also the appropriate date for ending the sale of R-12 in 14-ounce cans. The 10 pound limit should be changed to 30 pounds, and they should be refillable, to promote recycling and refilling by distributors. We also suggest several word changes to make clear that the prohibition on the

sale of small cans applies specifically to refrigerant suitable for charging air conditioners and not to certain specialty products which are mixtures of R-12 and either dyes or oils, and which are used for leak diagnosis and service, not recharging.

We suggest the use of the term "business establishment," or something similar, in place of the term "person." The reason is that the bill needs to distinguish between the business establishments (i.e., service shops) and the persons they employ (i.e., service personnel).

So we recommend rewriting § 2-702(A) as follows:

"(A)(1) On or after January 1, 1991, a business establishment may not sell or offer for sale in this state any refrigerant capable of being used to charge a motor vehicle air conditioner except in refillable containers (meeting appropriate U.S. Department of Transportation safety standards) which hold at least 30 pound quantities.

"(2) On or after January 1, 1991, a business establishment may not perform any service on a motor vehicle air conditioner involving refrigerant for such air conditioner without properly using approved refrigerant recycling equipment and unless each person authorized by such establishment to perform such service has been properly trained and certified. The requirements of the previous sentence shall not apply until January 1, 1992, to a business establishment which performed service on fewer than 100 motor vehicle air conditioners during 1990, provided that such establishment so certifies to the Department by January 1, 1991, pursuant to § 2-703."

Certification (§ 2-703)

Service shops should certify that they have acquired and are properly using the recycling equipment by the appropriate deadline, and that their service personnel are trained and certified in the new service procedure.

We suggest that § 2-703 be rewritten as follows:

"Not later than January 31, 1991, each business establishment which performs service on motor vehicle air conditioners shall certify to the Department either --

(A) that the establishment has acquired and is properly using approved refrigerant recycling equipment in any service on a motor vehicle air conditioner involving refrigerant for such air conditioner and that each person authorized by the establishment to perform such service is properly trained and certified; or

(B) that the establishment serviced fewer than 100 motor vehicle air conditioners in 1990.

Each business establishment which certifies under clause (B) shall certify under clause (A) not later than January 31, 1992. Each certification shall contain the name and address of the business establishment and the serial number(s) of the unit(s) acquired by the establishment and shall be signed by the owner or another responsible corporate officer. Certifications under clause (A) may be made by submitting the required information to the Department on a standard form provided by the manufacturer of approved refrigerant recycling equipment."

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FACSIMILE REQUEST AND COVER SHEET

TO: Rick Adcock

DATE: 2/27/89

OFFICE PHONE: 224-0880

NUMBER OF PAGES TRANSMITTED (Including Cover Sheet):

FROM: Global Change Division
Office of Atmospheric and Indoor Air Programs
Office of Air and Radiation
U.S. Environmental Protection Agency
401 M Street, SW (ANR-445)
Washington, D.C. 20460
Fax Number: 202-382-6344
Confirmation Number: 202-382-4036

02/27/89 15:58

202 382 6344

EPA M. TIKOFF

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HOUSE OF DELEGATES

H1

No. 1139

91r1584

By: Delegates Frosh, Kopp, Teitelbaum, Pitkin, Genn, Thomas,
Franchot, Poole, Dembrow, Roesser, and Pinsky
Introduced and read first time: February 3, 1989
Assigned to: Environmental Matters

A BILL ENTITLED

1 AN ACT concerning

2 Chlorofluorocarbons (CFCs) - Motor Vehicle Air
3 Conditioning Equipment

4 FOR the purpose of prohibiting the sale or offering for sale of
5 any chlorofluorocarbon coolant for use in motor vehicle air
6 conditioners of less than a certain size; prohibiting a
7 person from performing any service involving CFC coolants on
8 motor vehicle air conditioners without utilizing certain
9 equipment; requiring the Department to adopt certain
10 regulations; providing the Department with certain
11 authority; defining certain terms; and generally relating to
12 the sale and use of certain CFCs.

13 BY adding to

14 Article - Environment
15 Section 2-701 through 2-704, inclusive, to be under the new
16 subtitle "Subtitle 7. Chlorofluorocarbons"
17 Annotated Code of Maryland
18 (1987 Replacement Volume and 1988 Supplement)

Preamble

19

20 WHEREAS, Scientific research has demonstrated a clear
21 relationship between the release of certain chlorofluorocarbons
22 (CFCs) into the atmosphere and the depletion of the stratospheric
23 ozone; and

24 WHEREAS, Any decrease in stratospheric ozone levels allows
25 increased ultraviolet radiation to reach the earth's surface and
26 causes acute damage to life on this planet, including increased
27 incidence of skin cancer and other serious illnesses, changing
28 climatic patterns, and significant damage to the animal and plant
29 life on which we depend; and

30 WHEREAS, Motor vehicle air conditioning equipment in the
31 United States alone accounts for 26% of the harmful CFCs released

EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.
[Brackets] indicate matter deleted from existing law.

02/27/89 15:58

202 382 6344

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2

HOUSE BILL No. 1139

1 into the atmosphere, and technology has been developed that
2 recovers and recycles otherwise destructive CFCs in motor vehicle
3 air conditioning equipment; and

4 WHEREAS, It is environmentally sound to prevent CFC releases
5 and to recover and recycle CFCs wherever possible; now,
6 therefore,

7 SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF
8 MARYLAND, That the Laws of Maryland read as follows:

Article - Environment

SUBTITLE 7. CHLOROFLUOROCARBONS

2-701.

12 (A) IN THIS SUBTITLE THE FOLLOWING WORDS HAVE THE MEANINGS
13 INDICATED.

14 (B) "AIR CONDITIONING EQUIPMENT" HAS THE MEANING STATED IN
15 S 22-410 OF THE TRANSPORTATION ARTICLE.

16 (C) (1) "CHLOROFLUOROCARBON (CFC)" MEANS THE FAMILY OF
17 SUBSTANCES CONTAINING CARBON, FLUORINE, AND CHLORINE AND HAVING
18 NO HYDROGEN ATOMS AND NO DOUBLE BONDS.

19 (2) CFCs INCLUDE THE FOLLOWING:

20 (I) CFC-11 (TRICHLOROFLUOROMETHANE);

21 (II) CFC-12 (DICHLORODIFLUOROMETHANE);

22 (III) CFC-113 (TRICHLOROTRIFLUOROETHANE);

23 (IV) CFC-114 (DICHLOROTETRAFLUOROETHANE);

24 (V) CFC-115 ((MONO)CHLOROPENTAFLUOROETHANE);

25 (VI) HALON-1211 (BROMOCHLORODIFLUOROETHANE);

26 (VII) HALON-1301 (BROMOTRIFLUOROETHANE); AND

27 (VIII) HALON-2402 (DIBROMOTETRAFLUOROETHANE).

28 (IX) ANY SUBSTITUTE COOLANT WITH AN OZONE
29 DEPLETION POTENTIAL GREATER THAN ZERO.

30 (D) "CFC RECYCLING EQUIPMENT" MEANS EQUIPMENT THAT MEETS:

31 (1) THE UNDERWRITERS LABORATORIES STANDARDS FOR THE
32 EXTRACTION AND PURIFICATION OF CFC COOLANTS FROM MOTOR VEHICLE
33 AIR CONDITIONING EQUIPMENT; OR

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HOUSE BILL No. 1139

3

1 (2) STANDARDS ESTABLISHED BY THE DEPARTMENT THAT ARE
2 SUBSTANTIALLY SIMILAR TO THE UNDERWRITERS LABORATORIES STANDARDS
3 FOR THE EXTRACTION AND PURIFICATION OF CFC COOLANTS FROM MOTOR
4 VEHICLE AIR CONDITIONING EQUIPMENT.

5 (E) "MOTOR VEHICLE" HAS THE MEANING STATED IN § 11-135 OF
6 THE TRANSPORTATION ARTICLE.

7 2-702.

8 (A) ON OR AFTER JANUARY 1, 1990, A PERSON MAY NOT:

9 (1) SELL OR OFFER FOR SALE IN THIS STATE ANY CFC
10 COOLANT CAPABLE OF BEING USED IN MOTOR VEHICLE AIR CONDITIONERS
11 IN CONTAINERS OF LESS THAN 10 POUND QUANTITIES; OR

12 (2) PERFORM ANY SERVICE INVOLVING CFC COOLANTS ON
13 MOTOR VEHICLE AIR CONDITIONERS WITHOUT PROPERLY UTILIZING CFC
14 RECYCLING EQUIPMENT.

15 2-703.

16 ON OR AFTER JANUARY 1, 1990, EACH PERSON IN THE BUSINESS
17 OF PERFORMING SERVICE ON MOTOR VEHICLE AIR CONDITIONERS SHALL
18 CERTIFY TO THE DEPARTMENT THAT THE PERSON HAS ACQUIRED AND IS
19 PROPERLY UTILIZING CFC RECYCLING EQUIPMENT.

20 2-704.

21 (A) THE DEPARTMENT SHALL ADOPT REGULATIONS TO IMPLEMENT THE
22 PROVISIONS OF THIS SUBTITLE.

23 (B) THE DEPARTMENT SHALL HAVE THE AUTHORITY TO ENFORCE THE
24 PROVISIONS OF THIS SUBTITLE INCLUDING THE AUTHORITY TO ENTER AND
25 INSPECT ANY PLACE OF BUSINESS DURING NORMAL BUSINESS HOURS.

26 SECTION 2. AND BE IT FURTHER ENACTED, That this Act shall
27 take effect July 1, 1989.

A BILL FOR AN ACT

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RELATING TO OZONE DEPLETION AND GLOBAL WARMING.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. Chapter 342, Hawaii Revised Statutes is amended
2 by adding a new part to be appropriately designated and to read
3 as follows:

4 "PART . OZONE LAYER PROTECTION.

5 §342- Policy. The legislature finds that the adoption of
6 strong legislation to protect the ozone layer of the atmosphere
7 is a matter of compelling state interest to protect and preserve
8 the health of the people of the State and the State's economic
9 well-being. Chlorofluorocarbons (CFCs) and other chemicals
10 deplete the ozone layer, contributing to the greenhouse effect,
11 which causes global climatic changes. Results include increases
12 in skin cancers and cataracts, depression of human immune
13 systems, damage to aquatic systems and crops, and projected
14 losses of shoreline property because of rising ocean levels.

15 CFCs have atmospheric lifetimes of up to 380 years.
16 Substitutes for CFCs are being developed, but are not widely-
17 tested or available. Meanwhile the ozone layer is being depleted
18 steadily while atmospheric concentrations of CFCs continue to
19 increase. In the U.S., air conditioners and refrigerators

Page 2

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S.B. NO.

1 collectively account for forty per cent of all CFC emissions.
2 American automobiles account for seventy-five per cent of all CFC
3 emissions contributed by automobile air conditioners.

4 The State of Hawaii cannot wait for CFC substitutes to be
5 adopted by industry nor can it wait for international
6 negotiations to attempt to solve the problem. Already skin
7 cancers in Hawaii are at near-epidemic proportions. Tourists are
8 beginning to consider less-sunny destinations for their
9 vacations. The legislature finds that the State must act now.

10 The purpose of this part is to take prompt, strong, local
11 action to decrease the amount of CFCs escaping into the
12 atmosphere by prohibiting over-the-counter sales of refrigerants,
13 raising the standards of repair facilities, and promoting
14 recovery and recycling of CFCs in this state.

15 §342- Definitions. As used in this part, unless the
16 context otherwise requires:

17 "CFC" means a chlorofluorocarbon gas or liquid used as a
18 coolant or refrigerant.

19 "Mobile air conditioner" means an air conditioner designed
20 for installation in a motor vehicle.

21 "Recycled CFCs" means CFCs that have been recovered from a
22 device and purified for reuse.

Page 3

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S.B. NO.

1 "Vampire" means a device used to recover, or to recover and
2 to purify, CFCs from a device for later reuse.

3 §342- Prohibited acts. No person in this state shall:

- 4 (1) sell or offer for sale CFC coolant suitable for use in
5 mobile air conditioners in containers smaller than 15
6 pounds net;
- 7 (2) Perform service on mobile air conditioners,
8 refrigerators, or freezers in violation of rules
9 adopted under this part concerning equipment servicing
10 and vampire use;
- 11 (3) Cause or allow CFCs to be released into the air from
12 any source in violation of rules adopted under this
13 part; or
- 14 (4) Dispose of a refrigerator, freezer, mobile air
15 conditioner, or a motor vehicle with a mobile air
16 conditioner in violation of rules adopted under this
17 part concerning equipment disposal and vampire use.

18 §342- Rules. The department shall adopt rules necessary
19 for the purposes of this part including, but not limited to
20 rules:

- 21 (1) Approving vampires for use in this state and detailing
22 procedures for using them;

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- 1 (2) Requiring use of approved vampires before performing
2 service on mobile air conditioners, refrigerators, and
3 freezers and requiring the use of recycled coolants
4 whenever possible to recharge repaired units;
- 5 (3) Establishing procedures for disposal of the items in
6 section 342- that include mandatory recovery and
7 recycling of CFCs;
- 8 (4) Providing incentives for the purchase of vampires such
9 as a deposit-refund system for new equipment containing
10 CFCs, a bounty on illegally discarded units containing
11 CFCs or other incentives the department considers
12 appropriate;
- 13 (5) Governing the provision of classes by the department
14 concerning CFC recovery and recycling methods and
15 equipment to persons engaged, or considering becoming
16 engaged in, a business or government function that
17 involves equipment containing CFCs; and
- 18 (6) Providing for a permit program for persons who wish to
19 handle CFCs, if the department determines a permit
20 program is necessary.
- 21 §342- Penalty. Any person who violates this part or any
22 rule adopted by the department pursuant to this part shall be

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1 fined not more than \$10,000 for each separate offense. Each date
2 of violation shall constitute a separate offense. Any action
3 taken to impose or collect the penalty provided for in this
4 section shall be considered a civil action."

5 SECTION 2. This Act shall take effect upon its approval,
6 except Section 342- (1), which shall take effect three months
7 after this Act is approved.

8

9

INTRODUCED BY: _____

101st CONGRESS

1st SESSION

S. _____

To phaseout production of certain ozone-depleting chemicals;
to institute a policy promoting safe alternatives to ozone-
depleting chemicals; and for other purposes.

IN THE SENATE OF THE UNITED STATES

May 1, 1989

Mr. Gore (for himself and Mr. _____) introduced
the following bill; which was read twice and _____.

A BILL

To phaseout production of certain ozone-depleting chemicals;
to institute a policy promoting safe alternatives to ozone-
depleting chemicals; and for other purposes.

Be it enacted by the Senate and the House of
Representatives of the United States of America in Congress
assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Upper-Ozone Chemicals Act of 1989."

SEC. 2. FINDINGS.

The Congress finds that because no level of stratospheric ozone depletion or global climate change caused by human activities can be deemed safe --

(1) emissions of chlorofluorocarbons and other substances covered by this Act, including halogenated carbons with ozone-depleting potential, should be terminated rapidly;

(2) the highest priority must be given to developing and deploying safe alternative chemicals and technologies to replace ozone-depleting substances within five years; and

(3) production of the most dangerous ozone-depleting substances must be phased out within five years, and production of other ozone-depleting substances must be phased out over a ten-year period.

SEC. 3. OBJECTIVES AND NATIONAL GOAL.

(a) The objectives of the Act are to protect human health and natural ecosystems from all known and potential dangers due to depletion of the stratospheric ozone layer, which is or would be caused by consumer products containing chlorofluorocarbons, halons, or other chemicals covered by this Act by --

(1) phasing out production of the most dangerous ozone-depleting substances within five years; and

(2) promoting the development of safe alternatives to the use of the chlorofluorocarbons and other chemicals covered by this Act.

(b) In order to achieve the objectives of this Act, it is the national goal to phaseout production of chemicals with the potential for depleting stratospheric ozone.

SEC. 4. DEFINITIONS.

As used in this Act:

(1) The term "Administrator" means the Administrator of the Environmental Protection Agency.

(2) The term "household appliances" means non-commercial personal effects, including air-conditioners, refrigerators, and motor vehicles.

(3) The term "import" means to land on, bring into, or introduce into, or attempt to land on, bring into, or introduce into, any place subject to the jurisdiction of the United States, whether or not such landing, bringing, or introduction constitutes an importation within the meaning of the customs laws of the United States.

(4) The term "manufactured substance" means any organic or inorganic chemical of a particular molecular identity, or any mixture, that has been manufactured for commercial purposes.

(5) The term "medical purposes" means medical devices and diagnostic products (A) for which no safe substitute has been developed and (B) that, after notice and opportunity for public comment, have been approved and determined to be essential by the Commissioner of the Food and Drug Administration, in consultation with the Administrator.

(6) The term "person" means an individual, corporation (including a government corporation), partnership, firm, joint stock company, trust, association, or any other private entity, or any officer, employee, agent, department, or instrumentality of the Federal Government, or of any State or political subdivision thereof (including any interstate body), or of any foreign government (including any international instrumentality).

(7) The term "ozone depletion potential" means the chemical effectiveness with which a substance depletes stratospheric ozone, relative to chlorofluorocarbon-11.

(8) The term "substances covered by this Act" means those manufactured chemicals that are listed under subsections (a) or (b) of section 5 of this Act.

SEC. 5. LISTING OF REGULATED SUBSTANCES.

(a) Priority Regulated Substances.-- Within sixty days after the date of enactment of this Act, the Administrator shall publish a priority list of manufactured substances that are known or may reasonably be anticipated to cause or contribute to stratospheric ozone depletion. The initial list shall include chlorofluorocarbon-11, chlorofluorocarbon-12, chlorofluorocarbon-113, halon-1211, halon-1301, and carbon tetrachloride.

(b) Other Regulated Substances.-- Simultaneously with publication of the priority list, the Administrator shall publish a list of other manufactured substances that, in the judgment of the Administrator, meet the criteria set forth in the first sentence of subsection (a). The list of other manufactured substances shall include chlorofluorocarbon-22, chlorofluorocarbon-114, chlorofluorocarbon-115, methyl chloroform, and methylene chloride. At least annually thereafter, the Administrator shall publish a proposal to add to such list each other manufactured substance that, in the judgment of the Administrator, meets the criteria set forth in the first sentence of subsection (a). Within one hundred and eighty days after any such proposal, following an opportunity for public comment, the Administrator shall promulgate a regulation adding each such substance to the list, unless the Administrator determines that such substance clearly does not meet the criteria set forth in the first sentence of subsection (a). At any time, the Administrator may reclassify a substance from subsection (b) to subsection (a), if concerns over protection of the stratospheric ozone layer dictate such action.

(c) Ozone Depletion Factor.-- Simultaneously with publication of the lists or additions thereto under this section, and at least annually thereafter, the Administrator shall assign to each listed substance a numerical value representing the ozone depletion potential of each manufactured substance, on a mass (per kilogram) basis, as compared with chlorofluorocarbon-11. The numerical value shall, for the purposes of section 9, constitute the ozone depletion factor of each chemical. Until the Administrator promulgates regulations under this subsection, the following ozone depletion factors shall apply:

Chlorofluorocarbon-11.....1.0

Chlorofluorocarbon-12.....	1.0
Chlorofluorocarbon-22.....	0.05
Chlorofluorocarbon-113.....	0.78
Carbon tetrachloride.....	1.06
Methyl chloroform.....	0.10
Halon-1211.....	2.69
Halon-1301.....	11.43

SEC. 6. REPORTING REQUIREMENTS.

(a) Priority Regulated Substances.-- Within ninety days after the date of enactment of this Act, each person producing or importing a substance listed pursuant to subsection (a) of section 5 of this Act shall file a report with the Administrator setting forth the amount of the substance that was produced or imported by such person during calendar year 1986. Not less than annually thereafter, each such producer or importer shall file a report with the Administrator setting forth the production levels of such substance in each successive twelve-month period until such producer or importer ceases production or importation of the substance. Each such report shall be signed and attested by a responsible corporate officer.

(b) Other Regulated Substances.-- Within ninety days after the date of enactment of this Act, each person producing or importing a substance listed pursuant to subsection (b) of section 5 of this Act shall file a report with the Administrator setting forth the amount of the substance that was produced or imported by such person during the twelve months preceding the date of listing. Not less than annually thereafter, each such producer or importer shall file a report with the Administrator setting forth the production or importation levels of such

substance in each successive twelve-month period until such producer or importer ceases production or importation of the substance. Each such report shall be signed and attested by a responsible corporate officer.

SEC. 7. PRODUCTION PHASEOUT.

(a) Effective one year after the date of enactment of this Act, it shall be unlawful for any person to produce a substance listed pursuant to subsection (a) of section 5 of this Act in annual quantities greater than that produced by such person during calendar year 1986.

(b) Effective two years after the date of enactment of this Act, it shall be unlawful for any person to produce a substance listed pursuant to subsection (a) of section 5 of this Act in annual quantities greater than 75 per centum of that produced by such person during calendar year 1986.

(c) Effective three years after the date of enactment of this Act, it shall be unlawful for any person to produce a substance listed pursuant to subsection (a) of section 5 of this Act in annual quantities greater than 50 per centum of that produced by such person during calendar year 1986.

(d) Effective four years after the date of enactment of this Act, it shall be unlawful for any person to produce a substance listed pursuant to subsection (a) of section 5 of this Act in annual quantities greater than 5 per centum of that produced by such person during calendar year 1986.

(e) Effective five years after the date of enactment of this Act, it shall be unlawful for any person to produce a

substance listed pursuant to subsection (a) of section 5 of this Act for any use other than medical purposes.

(f) Effective ten years after the date of enactment of this Act, it shall be unlawful for any person to produce a substance listed pursuant to section 5 of this Act for any use other than for medical purposes.

SEC. 8. LIMITATION ON USE.

(a) Effective five years after the date of enactment of this Act, it shall be unlawful to introduce into interstate commerce or to use a substance listed under subsection (a) of section 5 of this Act except for medical purposes approved by the Commissioner of the Food and Drug Administration, in consultation with the Administrator, and, during a period not to extend beyond January 1, 2005, for purposes of maintaining and servicing household appliances.

(b) Effective ten years after the date of enactment of this Act, it shall be unlawful to introduce into interstate commerce or to use a substance listed under subsection (b) of section 5 of this Act except for medical purposes approved by the Commissioner of the Food and Drug Administration, in consultation with the Administrator, and, during a period not to extend beyond January 1, 2005, for purposes of maintaining and servicing household appliances. For purposes of this subsection and section 7(f), a manufacturing process utilizing such a substance solely as an intermediate in a manufacturing process in which the substance is wholly consumed and none is released does not constitute a use.

SEC. 9. LIMITATION ON OZONE DEPLETION POTENTIAL.

(a) Effective one year after the date of enactment of this Act, it shall be unlawful for any person to produce substances covered by this Act in annual quantities that, based upon the ozone depletion factor assigned to each substance under subsection (c) of section 5 of this Act, yield a total ozone depletion potential greater than that produced by such person during calendar year 1986.

(b) Effective two years after enactment of this Act, it shall be unlawful for any person to produce substances covered by this Act in annual quantities that, based upon the ozone depletion factor assigned to each substance under subsection (c) of section 5, yield a total ozone depletion potential greater than 75 per centum of that produced by such person during calendar year 1986.

(c) Effective three years after enactment of this Act, it shall be unlawful for any person to produce substances covered in this Act in annual quantities that, based upon the ozone depletion factor assigned to each substance under subsection (c) of section 5, yield a total ozone depletion potential greater than 50 per centum of that produced by such person during calendar year 1986.

(d) Effective four years after enactment of this Act, it shall be unlawful for any person to produce substances covered in this Act in annual quantities that, based upon the ozone depletion factor assigned to each substance under subsection (c) of section 5, yield a total ozone depletion potential greater than 5 per centum of that produced by such person during calendar year 1986.

(e) Effective five years after enactment of this Act, it shall be unlawful for any person to produce a substance listed pursuant to section 5(a) of this Act for any use other than for medical purposes.

(f) If the Administrator determines that such revised or specific schedule is necessary to protect human health and the environment based on new information regarding the harmful effects on the stratosphere or climate that may be associated with a listed substance, or is attainable, based on the availability of substitutes for a listed substance, the Administrator shall promulgate regulations, after notice and opportunity for public comment, which require each producer to reduce its production of the substance--

(1) if the substance is listed under subsection (a) of section 5 of this Act, more rapidly than the schedule provided under this Act; or

(2) if the substance is listed under subsection (b) of section 5, on a specific schedule not otherwise provided for in this Act.

Any person may petition the Administrator to revise such regulations within one hundred and eighty days after receipt of any such petition, unless the Administrator has previously denied the petition.

SEC. 10. PRODUCTION PHASEOUT EXCEPTION FOR NATIONAL SECURITY.

(a) The President may issue such orders regarding production and use of halon-1211 and halon-1301 at any specified site or facility as may be necessary to protect

the national security interests of the United States if the President personally finds that adequate substitutes are not available and that the production and use of such substance is necessary to protect such national security interests. Such orders may include, where necessary to protect such interests, an exemption from any requirement contained in this Act. The President shall notify the Congress within thirty days of the issuance of an order under this paragraph providing for any such exemption. Such notification shall include a statement of the reasons for granting the exemption. An exemption under this paragraph shall be for a specified period which may not exceed one year. Additional exemptions may be granted, each upon the President's issuance of a new order under this paragraph. Each such additional exception shall be for a specified period that shall not exceed one year. No exemption shall be granted under this paragraph due to lack of appropriation unless the President shall have specifically requested such appropriation as a part of the budgetary process and the Congress shall have failed to make available such requested appropriation.

(b) The Secretary of Defense shall seek to eliminate all emissions of halon-1211 and halon-1301 that presently occur during the testing of fire-extinguishing equipment. In so doing, the Secretary of Defense shall investigate the feasibility of testing such equipment with alternative methods that do not result in the release of halon-1211 and halon-1301 into the atmosphere.

SEC. 11. CERTIFICATION OF EQUIVALENT FOREIGN PROGRAMS.

(a) Imports.-- Effective twelve months after the date on which a substance is placed on the priority list pursuant

to section 5 of this Act, it shall be unlawful for any person to import such substance, any product containing such substance, or any product manufactured with a process that uses such substance unless the Administrator, in consultation with the Secretary of State, has published a decision, after notice and opportunity for public comment, certifying that the nations in which such substance or product was manufactured and from which such substance or product is imported have established and are fully implementing programs that require reduced production of such listed substances, and limit production of other substances covered by this Act, on a schedule and in a manner at least as stringent as the reduction schedule for, and limitations on, domestic production that apply under this Act. The prohibition on the import of any product manufactured with a process that uses a substance listed under subsection (a) of section 5 shall include, after notice and opportunity for public comment, any product that the Administrator has reason to believe may have been manufactured with a process that uses such substance. The Administrator's decision that a product may have been manufactured with a process that uses such substance shall constitute a rebuttable presumption.

(b) Certification of Foreign Programs.-- The Administrator shall not certify any foreign program under subsection (a) unless it is determined that--

(1) the nation involved has adopted legislation or regulations that gives the reduction schedule for each listed substance the force of law; and

(2) such legislation or regulations include reporting requirements and enforcement provisions no less stringent than those specified in this Act, and that the information

contained in such reports is available to the Administrator and the Secretary of State.

(c) Revocation.-- At least annually, the Administrator, in consultation with the Secretary of State, shall review each certification made under this section and shall revoke such certification, after notice and opportunity for public comment, unless it is determined that the conditions of subsections (a) and (b) remain satisfied and that the reduction schedule for each listed substance is in fact being carried out in such nations. Any such revocation shall take effect one hundred and eighty days after notice of the revocation has been published.

(d) Allocation.-- Any person who imports a substance covered by this Act or a product containing such substance shall, for the purposes of applying the provisions of section 7 and section 9, be deemed to have produced an equivalent amount of such substance on the date of such importation.

SEC. 12. MANUFACTURE AND DISPOSAL.

(a) Manufacture.-- Effective July 1, 1991--

(1) No person shall manufacture, process, distribute in commerce or otherwise use (except for medical purposes) any listed substance in any manner other than a totally enclosed manner. "Totally enclosed" means that during the lifetime of the good in question not more than 5 per centum of the original charge or volume of such substance will be released during the course of ordinary and customary use of such good, including repairs or disposal.

(2) No person shall manufacture, process, distribute in commerce, or otherwise use (except for medical purposes) a listed substance in a totally enclosed manner without--

(A) installing on such device a servicing aperture that will allow service and repair of such good with release of only de minimis amounts of such substance,

(B) assuring the availability and actual use of servicing equipment adequate to assure the achievement of no more than a de minimis release of such substance.

(b) Disposal.-- Effective January 1, 1991--

(1) A substance listed pursuant to this Act shall be deemed to meet the requirements of section 3001 of the Resource Conservation and Recovery Act.

(2) A substance listed pursuant to this Act shall be disposed of only through incineration or other means that assures 99 per centum destruction of such substance.

(3) Any appliance, machine, or other good containing a listed substance in bulk (including refrigerators and air conditioners) shall be accepted for disposal only by persons licensed to accept such goods and shall be disposed of only after such substance has been removed from confinement and destroyed pursuant to the requirements of this Act. Unless and until regulations establishing a program for approving, licensing, and assuring the financial responsibility of persons to accept goods containing such substances are promulgated, only governmental entities, or their agents, contractors or employees, are authorized to accept such goods.

(4) No listed substance shall be vented into the atmosphere or otherwise released in a fashion that permits it to enter the environment in other than de minimus quantities.

(5) Any product in which a listed substance has been incorporated so as to constitute an inherent element of such product, including rigid and soft foams, shall be disposed of only through incineration or other means that result in not less than 99 per centum destruction.

(c) For purposes of this section a "de minimis" amount is 0.050 per centum of the total charge of such substance or five pounds, whichever is less, released during a period of twelve months.

SEC. 13. SAFE ALTERNATIVES POLICY.

(a) Policy.-- The substances listed in section 5 of this Act shall, to the maximum extent practicable, be replaced by chemicals, product substitutes, or alternative manufacturing processes that reduce overall risks to public health and the environment.

(b) Reviews and Report.-- The Administrator shall initiate, not less than thirty days after the date of enactment of this Act, a review of relevant professional, technical, and scientific sources that may contain information concerning chemicals, product substitutes, or alternative manufacturing processes that are potential replacements for the substances listed in section 5 of this Act. The Administrator shall report interim findings to the Congress no later than six months after the date of

enactment of this Act. A final report shall be published no later than one year after the date of enactment of this Act.

(c) Report Findings.-- The report required under section (b) shall include the Administrator's findings with regard to--

(1) the identity of potential replacement chemicals, product substitutes, or alternative production processes;

(2) a chemical profile or an abstract that describes each replacement chemical, product substitute, or alternative production process identified pursuant to paragraph 1, and any health or environmental hazards, including the potential for contributing to the greenhouse effect and stratospheric ozone depletion; and

(3) the earliest date by which each replacement chemical, product substitute, or alternative production process identified pursuant to paragraph 1 could be made available for commercial use.

(d) Additional Measures.-- The Administrator shall require all producers of replacement chemicals for the substances listed in section 5 of this Act to provide the Environmental Protection Agency with all published and unpublished health and safety studies on such replacement chemicals, and shall require all such producers to notify the Environmental Protection Agency at least sixty days before such replacement chemicals are introduced for commercial use.

(e) Annual Updating.-- The Administrator shall update the report required by section (b), on an annual basis.

SEC. 14. FEDERAL ENFORCEMENT.

(a) Compliance Orders.--

(1) Whenever on the basis of any information the Administrator determines that any person has violated or is in violation of any requirement of this Act, the Administrator may issue an order assessing a civil penalty for any past or current violation, requiring compliance immediately or within a specified time period, or both, or the Administrator may commence, in the United States district court in the district in which the violation occurred, a civil action for appropriate relief, including a preliminary or permanent injunction.

(2) Any order issued pursuant to this subsection may include a suspension or revocation of any permit issued by the Administrator under this Act and shall state with reasonable specificity the nature of the violation. Any penalty assessed in the order shall not exceed \$25,000 for each violation of a requirement of this Act. In assessing such a penalty the Administrator shall take into account the seriousness of the violation and any good faith efforts to comply with applicable requirements.

(b) Public Hearing.---Any order issued under this section shall become final unless, no later than thirty days after the order is served, the person or persons named therein request a public hearing. Upon such request the Administrator shall promptly conduct a public hearing. In connection with any proceeding under this section the Administrator may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and may promulgate rules for discovery procedures.

(c) Violation of Compliance Orders.---If a violator fails to take corrective action within the time specified in a compliance order, the Administrator may assess a civil penalty of not more than \$25,000 for each day of continued noncompliance with the order and the Administrator may suspend or revoke any permit issued to the violator under this Act.

(d) Criminal Penalties.---Any person who--

(1) knowingly exceeds the production limits under section 7 or section 9.

(2) knowingly introduces into interstate commerce a consumer product that is in violation of section 5, 6, or 9;

(3) knowingly imports a substance listed under subsection (a) of section 5, a product containing such substance, or a product manufactured with a process that uses such a substance, in violation of section 7;

(4) knowingly introduces into interstate commerce a substance or product in violation of section 8;

(5) knowingly omits material information or makes any false material statement or representation in any application, record, report, permit, or other document filed, maintained, or used for purposes of compliance with this Act;

(6) knowingly produces, transports, distributes, or uses consumer products containing a substance listed under

section 5, or a product manufactured with a process that uses such a substance; or

(7) knowingly destroys, alters, conceals, or fails to file any record, application, report, or other document required to be maintained or filed for purposes of compliance with this Act

shall, upon conviction, be subject to a fine in accordance with title 18 of the United States Code for each day of a violation, or imprisonment not to exceed two years, or both. If conviction is for a violation committed after a first conviction of such person under this paragraph, the maximum applicable punishment shall be doubled with respect to both fine and imprisonment.

(e) Violations.---Each day of violation of any requirement of this Act shall, for purposes of this section, constitute a separate violation.

SEC. 15. JUDICIAL REVIEW OF FINAL REGULATIONS AND CERTAIN PETITIONS.

Any judicial review of any final action of the Administrator pursuant to this Act shall be in accordance with sections 701 through 706 of title 5 of the United States Code, except that---

(1) a petition for review of any final action of the Administrator may be filed by any interested person in the Circuit Court of Appeals of the United States for the Federal judicial district in which such person resides or transacts business, and such petition shall be filed within the ninety day period beginning on the date of such filed

action or after such period if such petition is for review based solely on grounds arising after such period;

(2) action of the Administrator with respect to which review could have been obtained under this subsection shall not be subject to judicial review in civil or criminal proceedings for enforcement; and

(3) if a party seeking review under this Act applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that the information is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, and to be adduced upon the hearing in such manner and upon such terms and conditions as the court may deem proper; the Administrator may modify administrative findings as to the facts, or make new findings, by reason of the additional evidence so taken, and shall file with the court such modified or new findings and the Administrator's recommendation, if any, for the modification or setting aside of the original administrative order, with the return of such evidence.

SEC. 16. CITIZEN SUITS.

(a) In General.--- Except as provided in subsection (b) or (c) of this section, any person may commence a civil action on his own behalf---

(1) against any person (including the United States and any other governmental instrumentality or agency, to the extent permitted by the eleventh amendment to the

Constitution) who is alleged to be in violation of any permit, regulation, condition, requirement, prohibition, or order which has become effective pursuant to this Act; or

(2) against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this Act which is not discretionary with the Administrator.

Any action under paragraph (1) of this subsection shall be brought in the United States district court for the district in which the alleged violation occurred. Any action brought under paragraph (2) of this subsection may be brought in the United States district court for the district in which the alleged violation occurred or the District Court of the District of Columbia. The district court shall have jurisdiction, without regard to the amount in controversy or the citizenship of the parties, to enforce the permit, regulation, condition, requirement, prohibition, or order, referred to in paragraph (1), to order such person to take such other action as may be necessary, or both, or to order the Secretary to perform the act or duty referred to in paragraph (2), as the case may be, and to apply any appropriate civil penalties under section 13.

(b) Actions Prohibited.---No action may be commenced under subsection (a)(1) of this section---

(1) prior to sixty days after the plaintiff has given notice of the violation to---

(A) the Administrator; and

(B) to any alleged violator of such permit, regulation, condition, requirement, prohibition, or order; or

(2) if the Administrator has commenced and is diligently prosecuting a civil or criminal action in a court of the United States to require a compliance with such permit, regulation, condition, requirement, prohibition, or order.

In any action under subsection (a)(1), any person may intervene as a matter of right. Any action respecting a violation under this Act may be brought under this section only in the judicial district in which such alleged violation occurs.

(c) Notice.---No action may be commenced under paragraph (a)(2) of this section prior to sixty days after the plaintiff has given notice to the Secretary that he will commence such action. Notice under this subsection shall be given in such manner as the Secretary shall be given in such manner as the Secretary shall prescribe by regulation.

(d) Intervention.---In any action under this section the Administrator, if not a party, may intervene as a matter of right.

(e) Costs.---The court, in issuing any final order in any action brought pursuant to this section or section 14, may award costs of litigation (including reasonable attorney and expert witness fees) to the prevailing or substantially prevailing party, whenever the court determines such an award is appropriate. The court may, if a temporary restraining order or preliminary injunction is sought,

require the filing of a bond or equivalent security in accordance with Federal Rules of Civil Procedure.

(f) Other Rights Preserved.---Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any standard or requirement or to seek any other relief (including relief against the Administrator).

SEC. 17. SEPARABILITY.

If any provision of this Act, or the application of any provision of this Act to any person or circumstance, is held invalid, the application of such provision to other persons or circumstances, and the remainder of this Act, shall not be affected thereby.

SEC. 18. RELATIONSHIP TO OTHER LAWS.

(a) Nothing in this Act shall be construed to alter or affect the authority of the Administrator under the Clean Air Act or the Toxic Substances Control Act or to affect the authority of any other department, agency, or instrumentality of the United States under any provision of law to promulgate or enforce any requirement respecting control of any substance, practice, process, or activity for purposes of protecting the stratosphere or ozone in the stratosphere.

(b) Nothing in this Act shall preclude or deny any State or political subdivision thereof from adopting or enforcing any requirement respecting the control of any

substances, practice, process, or activity for the purposes of protecting the stratosphere or ozone in the stratosphere.

SEC. 19. AUTHORITY OF ADMINISTRATION.

The Administrator is authorized to prescribe such regulations as are necessary to carry out this Act.

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101ST CONGRESS
1ST SESSION

S. 872

To phaseout production of certain ozone-depleting chemicals; to institute a policy promoting safe alternatives to ozone-depleting chemicals, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MAY 1 (legislative day, JANUARY 3), 1989

Mr. GORE introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

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6 **SEC. 2. FINDINGS.**

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8 spheric ozone depletion or global climate change caused by
9 human activities can be deemed safe—



ADMINISTRATIVE CENTER • BENTON HARBOR, MICHIGAN 49022
GOVERNMENT AND PUBLIC AFFAIRS • (616) 926-3219

A. J. TAKACS
VICE PRESIDENT

Rick

June 26, 1989

The Honorable Albert Gore, Jr.
United States Senate
Washington, DC 20510

Dear Al:

The depletion of the ozone layer, caused by chloro-fluorocarbons (CFCs), is an issue of very current concern.

It is, therefore, vital that commitments be made to attack this problem from the very highest levels. Attached is a statement by the Whirlpool Corporation Chairman, CEO and President, David R. Whitwam, regarding the CFCs used in home appliances. We hope you will find this commitment of interest.

Sincerely,

Andy Takacs

AJT/h

Attachment

A
WHIRLPOOL CORPORATION
STATEMENT
BY
DAVID R. WHITWAM
CHAIRMAN, CEO AND PRESIDENT

* * * * *

A
COMMITMENT TO PHASE OUT
OZONE-DEPLETING
CHEMICALS

June 1989

WHIRLPOOL CFC STATEMENT

The worldwide ozone depletion controversy and the use of chlorofluorocarbons (CFCs) in home appliances has been addressed head-on by Whirlpool Corporation Chairman and CEO, David R. Whitwam, when he "committed the company worldwide to phase out the use of ozone-depleting CFCs at the earliest possible date."

Whitwam stated that global environmental concerns about the ozone layer directly affects domestic refrigerators and freezers since they use CFCs as a refrigerant and for insulation purposes. "As soon as safe acceptable substitutes are commercially available for CFC-11 and CFC-12, we will begin the process of phasing out our use of those materials," according to Whitwam.

In addition, Whitwam emphasized that the conflicting U.S. Government mandates which require a CFC phase-out along with appliance energy efficiency improvements have created a dilemma for the U.S. appliance industry. CFCs have been an important factor in the dramatic energy efficiency improvements in refrigerators and freezers in the U.S. over the past fifteen years. However, preliminary tests of the most promising substitutes to date indicate they will be less energy efficient than currently used CFCs. Resolving these conflicting government mandates is critical to the global CFC-ozone controversy, as the U.S. is virtually the only nation that is facing both mandatory energy standards and CFC phase-out, Whitwam stated.

"Whirlpool has been testing and evaluating alternatives for quite some time," he concluded, "and we will continue to do so until environmentally safe and energy efficient substitutes are available for mass production."

#

June, 1989

Davis Heating & Air Conditioning, Inc.

COMMERCIAL, INDUSTRIAL, RESIDENTIAL SALES & SERVICE

TELEPHONE
472-4692

P.O. BOX 3182
635 MIMOSA DRIVE, N.W.
CLEVELAND, TENNESSEE 37311

June 27, 1989

The Honorable Senator Albert Gore
U.S. Senate
393 Russell Senate Office Building
Washington, D.C. 20510

Dear Senator Gore:

Rich
[Signature]

I am opposed to a provision in the Fiscal Year (FY '90) Bush Budget that would tax chloroflourocarbons (CFCs).

Stratospheric ozone depletion is caused primarily by emitting fully halogenated CFCs or refrigerant into the atmosphere through a variety of ways, including air conditioning.

In an attempt to reduce CFC emissions, the Bush FY '90 budget proposal contains a section which would raise \$2 billion in revenue over the next four years by implementing either the Environmental Protection Agency's (EPA) proposed auction system or a CFC user's fee.

The auction system or the user's fee is a new tax. It would be an added cost passed on to the ultimate end-user and would not reduce CFC emissions. Neither would it help bring new chemicals and equipment designs to the market sooner. The money raised would be used for continued federal spending.

Industry is already voluntarily going beyond the CFC production reductions specified in the Montreal Protocol and EPA's Production Quota system by aiming for an ultimate phase out by the year 2000. Business, professional groups, trade associations, and federal agencies are working together to establish CFC recycling standards.

As an air conditioning contractor, I am informing my employees and customers on this issue, and educating myself to the new service techniques that are available or might be available in the near future. These continued efforts will solve the ozone problem, not a tax!

I urge you to oppose this section of the FY '90 Bush Budget and any other measures that would tax CFCs.

Sincerely,

Alvin L. Davis



E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED

WILMINGTON, DELAWARE 19898

April 12, 1989

CHEMICALS AND PIGMENTS DEPARTMENT

The Honorable John D. Dingell
Chairman, Subcommittee on Oversight and
Investigations
U.S. House of Representatives
2221 Rayburn House Office Building
Washington, D.C. 20515-2216

JPA

Dear Congressman Dingell:

This letter is in response to your requests for our comments in your letter of March 14, 1989 to the Honorable William Reilly. As an overview, Du Pont is committed to an orderly transition to a total phaseout of our production of CFC's and Halons as soon as possible, and no later than the turn of the century. The development of safe substitutes or alternate technologies is essential if an orderly phaseout is to be accomplished. Du Pont will make its best efforts to pursue as rapidly as possible the development and commercialization of the prospective products we have to offer as substitutes. The effort will require a significant commitment of research and capital resources, and success can not be guaranteed. It is possible that none of Du Pont's prospective product offerings will meet the social, political and economic hurdles to commercialization during the next decade.

To clarify the two statements attributed to Du Pont spokespersons, I offer the following:

(1) I am not aware of any new substitute which would cost only 5% more than the CFC it would replace. The food packaging industry has switched from CFC-12 to HCFC-22 at a modest (less than 10%) cost increase due to synergistic favorable cost and performance factors. It still seems to be appropriate to use our previous ballpark estimates that the substitutes we may have to offer from the fluorocarbon family will cost two to five times the CFC's they will replace. I regard the pace of Du Pont's substitute development efforts to be exemplary, and ahead of our schedule, although I am not aware of the source of Mr. Reilly's statement attributed to Du Pont.

(2) Preventing the construction of new CFC plants is an expected and desirable effect of our export policy. Unless developing nations are assured a supply of CFC's during the transition, they may be tempted to build their own CFC plants. We plan to serve our existing export markets as allowed by the Montreal Protocol and the EPA regulations. In so doing, we will

be able to assist our developing nation customers in effecting an orderly transition via purchases of alternatives to permit a total phaseout near the turn of the century. As a result of our customer interfaces throughout the world, I believe we have had a constructive influence on nations who are proceeding with their ratification process.

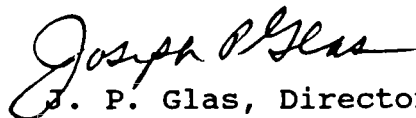
While we are pleased with the progress we have made to date, we share your concern about the many hurdles that still remain before commercialization of CFC substitutes is possible. You have noted several in your letter to Mr. Reilly. First and foremost is the ability of the user industries to develop new products and/or processes to accommodate the substitutes which we or others may have to offer. These substitutes will be much higher in cost and technically different in performance relative to the CFC's they would replace. Secondly, the uncertainty of the long-term environmental acceptability of the so called HCFC's and threats of regulation will have to be resolved before producers or users can justify significant investment to commercialize products such as HCFC-123 and HCFC-141b, which are replacement candidates for CFC-11. Industry is investigating the toxicology, global warming potential, and ozone depletion potential of these compounds. Preliminary results on toxicology, plus peer reviewed and globally accepted ozone depletion potentials and global warming effects should be available later this year. However, both of these compounds contain chlorine, and will likely be assigned ozone depletion potentials of 2% (for 123) to 10% (for 141b) of CFC-11. Industry (producers and users) will have to be assured that this is environmentally and politically acceptable before investment to commercialize will be made. Proposed legislation which would ban HCFC-22 (ozone depletion potential of 5% of CFC-11) will likewise have to be resolved favorably to assure investors of long-term product life cycles for the HCFC's and equipment that use them. Industry cannot be expected to invest billions of dollars to produce products and HCFC-using capital equipment that will be regulated in the future. There is an urgent need for a regulatory process which would develop a consensus position on the viability of the HCFC's. We urge again that the EPA invoke the regulatory negotiation process to achieve societal consensus.

In an effort to demonstrate a commitment to support market development, Du Pont has invested in several pilot plant and small scale production facilities, including a +\$25 million commercial unit to produce 134a, a refrigerant substitute for CFC-12. This facility will start up in late 1990, well before equipment will be available to use the product. While 134a has no chlorine and, therefore, zero ozone depletion potential, significant technical hurdles must be overcome before 134a can be adopted by our customers for refrigeration or air conditioner designs. Unfortunately, we have recently learned that the major appliance manufacturers have ruled out 134a as a replacement for CFC-12 due to its lower energy efficiency.

In conclusion, further progress by producers and users to accelerate the development of substitutes and demonstrate their value in use will be restrained by these unresolved environmental and political uncertainties. Input from users is critical to development of an understanding of realistic transition timing, and we welcome your suggestion that EPA consult with both CFC users and producers about the obstacles that remain. Indeed, the Federal Government itself, as a significant user of CFC's for air conditioning of its office buildings, can help by playing a leadership role in the development of retrofit technology for its equipment and in the process accelerate the pace of the development. Congress can also help by resolving the regulatory uncertainty surrounding the environmental acceptability of the HCFC compounds, and by opposing counterproductive administration activities such as the CFC auction/fee proposal. Any auction or fee on CFC's would extract billions of dollars from the industry at the very time that funds are needed to develop CFC alternatives and redesign CFC using equipment at a cost of several billion dollars.

I would welcome the opportunity to discuss these matters in detail with you and/or your staff at your earliest convenience. Please feel free to contact me at (302) 774-3419 or Bob Heine in our Washington office at 728-3618.

Sincerely,



J. P. Glas, Director
Freon® Products Division

JPG:sbm
DINGELL.LTR

CC: The Honorable Thomas J. Bliley, Jr., Ranking Minority Member
Subcommittee on Oversight and Investigations

The Honorable James A. Baker, III, Secretary
Department of State

The Honorable James D. Watkins, Secretary
Department of Energy

The Honorable Normal F. Lent, Ranking Minority Member
Subcommittee on Oversight and Investigations

The Honorable Max Baucus, Chairman
Subcommittee on Hazardous Wastes and Toxic Substances

The Honorable John H. Chafee, Ranking Minority Member
Subcommittee on Environmental Protection

The Honorable George J. Mitchell, Chairman
Subcommittee on Environmental Protection

The Honorable Albert Gore, Jr.
Subcommittee on Science, Technology and Space

The Honorable Dave Durenberger, Ranking Minority Member
Subcommittee on Hazardous Wastes and Toxic Substances

Mr. Charles A. Bowsher, Comptroller General
General Accounting Office

Mr. Dale Myers, Administrator
National Air & Space Administration

Mr. Robert A. Traflet, President
Fluorine Products Division, Allied Signal, Inc.

Mr. Peter Mc Carthy, Vice President of Public Relations
Pennwalt Corporation

Mr. Kevin J. Fay, President
Alliance for Responsible CFC Policy