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Last Updated: 05/16/2024

# THE WHITE HOUSE WASHINGTON

# **CABINET** AFFAIRS STAFFING MEMORANDUM

Date: June 10, 1987 Number: 490,661 Due By:

Subject: Domestic Policy Council Meeting -- June 11, 1987 -- 11:00 a.m.

Roosevelt Room

ALL CABINET MEMBERS Vice President State Treasury Defense Justice Interior Agriculture	Action प्रियित त	CEA CEQ OSTP	Action	FXI 000000000000000000000000000000000000
Agriculture Commerce Labor HHS HUD Transportation Energy Education Chief of Staff OMB UN USTR	ष्यविद्यद्यदिद्यदि	Carlucci Cribb Bauer Dawson (For WH Staffing)		
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**REMARKS:** 

The Domestic Policy Council will meet on Thursday, June 11, 1987, at 11:00 a.m. in the Roosevelt Room. The agenda and background papers are attached for your review.

**RETURN TO:** 

Nancy J. Risque Cabinet Secretary 456-2823 (Ground Floor, West Wing)

☐ Associate Director Office of Cabinet Affairs 456–2800 (Room 235, OEOB)

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WASHINGTON

DOMESTIC POLICY COUNCIL

Thursday, June 11, 1987

11:00 a.m.

Roosevelt Room

### AGENDA

1. Stratospheric Ozone -- Lee M. Thomas Administrator Environmental Protection Agency Beryl W. Sprinkel Chairman Council of Economic Advisers Domestic Policy Council Meeting

June 11, 1987

## PARTICIPANTS

The Attorney General, Chairman Pro Tempore

Secretary Hodel Secretary Lyng Secretary Bowen Secretary Herrington Deputy Secretary Whitehead (Representing Secretary Shultz) Deputy Secretary Taft (Representing Secretary Weinberger) Deputy Secretary Brown (Representing Secretary Baldrige) Under Secretary Covitz (Representing Secretary Pierce) Deputy Director Wright (Representing Director Miller)

T. Kenneth Cribb, Jr., Assistant to the President for Domestic Affairs

Nancy Risque, Assistant to the President and Cabinet Secretary Gary Bauer, Assistant to the President for Policy Development Ralph Bledsoe, Executive Secretary, Domestic Policy Council

For Presentation

Lee Thomas, Administrator, Environmental Protection Agency Beryl Sprinkel, Chairman, Council of Economic Advisers

#### Additional Attendees

Dan Crippen, Deputy Assistant to the President Jim Dyer, Deputy Assistant to the President for Legislative Affairs John Tuck, Executive Assistant to the Chief of Staff Albert Brashear, Special Assistant to the President and Deputy Press Secretary Robert Dean, Special Assistant to the President and Senior Director of International Programs/Technology Affairs, NSC William Graham, Science Advisor to the President and Director of the Office of Science and Technology Policy Richard Benedick, Deputy Assistant Secretary for Environment, Health and Natural Resources, Department of State Thomas Hookano, Deputy Assistant Attorney General, Land and Natural Resources Division Wendell Wilkie, General Counsel, Department of Education Jacqueline Schafer, Member, Council on Environmental Quality

Steve Galebach, Senior Special Assistant to the Attorney General

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WASHINGTON June 10, 1987

MEMORANDUM FOR EDWIN MEESE III

FROM:

EDWIN MEESE III RALPH C. BLEDSOE Ach Plenne

SUBJECT: Ninety-Fourth Meeting of Domestic Policy Council

The Domestic Policy Council will hold its ninety-fourth meeting on Thursday, June 11, 1987 at 11:00 a.m. in the Roosevelt Room. The subject for discussion is Stratospheric Ozone.

### Stratospheric Ozone

- o This will be a continuation of the May 20 Council meeting, at which the Council asked for more information about the legal, legislative, health, climatic, and cost/benefit aspects of this issue.
- Lee Thomas will be prepared to discuss the legal/legislative, health and climatic issues. (About 5-8 minutes.)
- Beryl Sprinkel will be prepared to discuss the cost/benefit analysis. (About 3-5 minutes.)
- Following their presentations, you may wish to lead the Council through a discussion of the key features of the protocol being negotiated, so that recommendations for the President can be developed, and the U.S. negotiators have the guidance they need from the Council. Those issues are:

GENERAL - Whether to continue the international negotiations using the current Circular 175 guidance. (The Working Group recommends that this be done, but that additional guidance be given to the U.S. negotiators through broader discussions by the departments and agencies represented on the Council.)

REMISSIONS CONTROL PROTOCOL - In the paper sent to the members, this section begins on page 8. Because it has been more fully developed, you may wish to cover it first. Also, it is based on a Chairman's Text which emerged from the negotiations, and delegations are to obtain views from their respective countries on its contents.

Briefly, it proposes a freeze on emissions, and additional reductions beyond. Questions for the Council are:

1. What chemicals should the freeze cover? (The Working Group consensus is that the freeze should include all of these CFCs as well as Halons 1201 and 1311.) 2. When should a freeze on emissions occur? (The Working Group consensus is that a freeze on emissions should go into effect within one to two years after entry into force of the protocol.)

3. What chemicals should the reductions cover? (The Working Group consensus is that any additional reductions should cover CFCs 11 and 12; however, there are questions about cover of CFCs 113, 114, 115, and Halons 1201 and 1311.)

4. <u>How much and when</u>? (The Working Group recommends that the Council discuss and provide guidance on whether the U.S. position is to support:

- 1. A 20% reduction beyond a freeze.
- 2. An additional 30% reduction.
- 3. Additional reductions beyond 50%.

5. Should the reductions be automatic (subject to reversal by a 2/3 vote) or contingent upon a positive majority vote of the parties? (The Working Group recommends that the Council provide guidance on whether to support automatic reductions of:

- 1. 20% beyond the freeze.
- 2. An additional 30%.

PARTICIPATION AND TRADE PROVISIONS - Discussion of these questions begins on page 5 of the paper sent to Council members. While these were hotly debated in the Working Group, they are perhaps not as fully developed. They include:

1. What should be the U.S. position regarding international participation in the protocol? (The Working Group feels that the U.S. delegation should seek maximum international participation in the protocol. The Working Group also has proposed three options for how this would be obtained:

a. Give the U.S. delegation discretion for seeking maximum participation.

b. Develop criteria (in advance) for acceptable levels of participation, and direct the delegation to follow them.

c. Wait to reassess the U.S. position after we know the extent of participation by other countries.)

2. Voting among parties to the protocol. (The Working Group recommends that the U.S. delegation negotiate for a system of voting which would give due weight to the major producing and consuming countries.)

3. Control formula and trade provisions. (The Working Group recommends that the Council direct the U.S. delegation to continue to seek to include in the protocol an effective formula to control emissions, with several specific features.)

4. Should the U.S. seek protocol provisions for reporting, monitoring, verification and enforcement provisions. (The following options were developed for Council consideration:

a. Give the U.S. delegation discretion for seeking such provisions.

b. Insist that the protocol include such provisions.)

5. Should the U.S. attempt to receive "credit" for its 1978 unilateral voluntary ban on CFC-producing non-essential aerosols? (The Working Group recommends that the Council consider and provide guidance for the U.S. delegation as to whether or not we should attempt to gain credit for our previous actions.)

- Consistent with your letter to Secretary Shultz, you may wish to propose that the President will be presented with the Council's recommendations.
- As indicated, all of the above issues are further discussed in the attached paper. The paper also contains highlights of what will be said by Lee Thomas and Beryl Sprinkel about the legal, legislative, health, climatic and cost/benefit aspects of this issue.

attachment

copies: Nancy Risquel Steve Galebach

## TABLE 1: COMPARISON OF BENEFITS AND COSTS OF CFC CONTROL STEPS

BENEFITS* (billions of dollars)		COSTS** (billions of dollars)	
Discoun	t Rate	Discount Rate	
48	<u>68</u>	<u>48</u>	<u>68</u>
\$739	\$131	\$1.6 - \$3.3	\$1.0 - \$1.4
34	6.4	3.5 - 7.0	2.2 - 3.0
58	11	9.2 - 18.7	5.8 - 8.0
	BENEFI (billions Discoun <u>4%</u> \$739 34 58	BENEFITS* (billions of dollars) Discount Rate <u>4% 6%</u> \$739 \$131 34 6.4 58 11	BENEFITS*       COSTS         (billions of dollars)       (billions of dollars)         Discount Rate       Discount $4$ $6$ $5739$ \$131 $34$ $6.4$ $58$ $9.2 - 18.7$

# \*Assumptions for Benefits Calculations:

- (1) Deaths averted and scenarios for "Freeze" and cuts corresond to deaths averted and scenarios for health effects estimates. E.g., "Freeze" is a "Protocol Freeze," not a true global freeze, etc.
- (2) Benefits and costs as shown in Table are incremental benefits and costs of indicated steps. Present values of marginal benefits are averaged over ranges of parameters reported by Working Group Subcommittee on Benefits and Costs:
  - Value of life initially: \$2,000,000; \$4,000,000
  - Increase in value of life over time: growth at 2% per year; value of life constant.
  - Four different time profiles for deaths averted
- (3) Benefits calculated for premature skin cancer deaths averted only. Benefits for preventing non-fatal skin cancers, cataracts, and other economic damages would be additive.

# \*\*Assumptions for Cost Calculations:

- (1) Low ends of ranges: marginal costs grow at .625% per year forever.
- (2) High ends of ranges: marginal costs grow at 2.5% per year forever.

WASHINGTON June 10, 1987

MEMORANDUM FOR THE DOMESTIC POLICE COUNCIL

FROM:

RALPH C. BLEDSOE/ apr Chelpe

SUBJECT:

CT: Domestic Policy Council Meeting on June 11, 1987

Attached are an agenda and materials for the Domestic Policy Council meeting scheduled for Thursday, June 11, 1987 at 11:00 a.m. in the Roosevelt Room. The agenda item to be discussed is Stratospheric Ozone.

This will be a continuation of the discussion at the May 20 meeting, at which additional information was requested on the legal and legislative, health, climatic, and cost/benefit aspects of this issue. The attached paper contains a brief description of these, and includes additional points for discussion about the U.S. positions that should be taken during the international negotiations.

Attachments

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#### WASHINGTON

DOMESTIC POLICY COUNCIL

Thursday, June 11, 1987

11:00 a.m.

Roosevelt Room

## AGENDA

1. Stratospheric Ozone -- Lee M. Thomas Administrator Environmental Protection Agency Beryl W. Sprinkel Chairman Council of Economic Advisers

WASHINGTON June 10, 1987

MEMORANDUM FOR THE DOMESTIC POLICY COUNCIL

FROM: THE ENERGY, NATURAL RESOURCES & ENVIRONMENT WORKING GROUP

SUBJECT: Stratospheric Ozone

On May 20, 1987, the Council met to discuss the international protocol negotiations currently underway to limit emissions of ozone depleting chemicals. Several questions were raised and the Working Group was asked to provide answers. The questions were:

- \* What are the legislative and legal impacts of an international ozone protocol?
- \* What are the most up-to-date scientific data on climatic and health effects of ozone depletion?
- \* What is the cost/benefit effect of an international protocol restricting ozone depleting chemicals?

The following has been summarized by the Working Group after discussion of detailed presentations by experts in each area.

#### Climatic and Atmospheric

- o Since 1960 the natural variability of the total global column of ozone has been about 3%.
- O Observations have shown (1) a decrease in ozone of about 7% during the last decade in the upper part of the stratosphere; and (2) a 40% decrease in total column ozone over Antarctica in the spring season since the mid-1970's. Whether the recent changes in column and upper stratospheric ozone are due to natural phenomena or in part to CFCs remains an open question.
- o Continued growth of CFC and Halon emissions at 3% per year is predicted to yield a globally averaged ozone depletion of 6% by the year 2040, and more thereafter, which would be greater than natural variability. In contrast, a true global freeze on emissions of CFCs and Halons (i.e. full international participation, full chemical coverage, and full compliance) is predicted to yield a maximum global average column ozone depletion of less than 1%. Ozone depletions at high latitudes are predicted to be 2-3 times larger than the global average.
- A true global freeze would limit column ozone depletion to less than the natural variability. A protocol freeze would fall short of a true global freeze as it would have less than

full compliance among developed countries and would most likely allow for limited growth in CFC usage in developing countries.

- Ozone depletion in the upper part of the stratosphere greater than 25% is predicted to occur even in the case of a true global freeze. This would lead to a local cooling greater than natural variability. The consequences of this cooling for the earth's climate cannot be predicted at this time.
- There is an uncertainty factor of two to three in the predictive abilities of the theoretical models used to simulate the present atmosphere.
- If there is environmental damage due to CFCs and Halons, their long atmospheric lifetimes would mean that recovery would take many decades even after complete cessation of emissions.

# Health and Ecological Effects

 Projected ozone depletion will increase health effects of ultraviolet radiation (UVB)

-- Without ozone depletion, projections show UVB is a serious problem, and will cause:

- 2,977,000 skin cancer deaths of Americans born before 2075,
- 165 million skin cancer cases,
- 426,516,000 cataracts.

-- If the predicted 25% depletion of ozone in the upper stratosphere occurs by 2075, UVB related health effects would increase by:

- 2 million additional skin cancer deaths,
- 98 million additional skin cancer cases,
- 43 million additional cataracts.

-- If upper stratospheric depletion of 7.7% occurs instead (as predicted to result from a protocol freeze with less than full compliance and limited emissions growth in developing countries),

- 1.6 million additional American deaths would be averted,
- 79 million additional skin cancer cases would be averted,
- 32 million additional cataracts would be averted.

-- If upper stratospheric depletion of 6.1% occurs (as predicted to result from a 20% emissions reduction protocol with less than full compliance and limited emissions growth in developing countries) incrementally,

- 80,000 additional American deaths would be averted,
- 4 million additional skin cancer cases would be averted,

- 2 million additional cataracts would be averted.

-- If upper stratospheric depletion of 3.2% occurs (as predicted to result from a 50% emissions reduction protocol with less than full compliance and limited emissions growth in developing countries) incrementally,

- 130 thousand additional American deaths would be averted,
- 7 million additional skin cancer cases would be averted,
- 7 million additional cataracts would be averted.

-- Uncertainties include future ozone depletion, the action spectra and estimates of dose-response coefficients.

The analysis assumes no behavioral changes.
Considering quantifiable uncertainties, there is a 50% chance that the actual damages will be between 50% and 125% of the above estimates.
There is a 90% chance that the actual damages will be between 20% and 260% of the above estimates.

-- Laboratory studies link UVB with suppression of the immune system.

Evidence suggests a relationship to infectious disease.
 A relationship has been demonstrated in herpes simplex and the tropical disease, leishmanias.

 Evidence supports the conclusion that ozone depletion would exacerbate existing environmental problems.

-- Photochemical air pollution in places like Los Angeles would probably worsen.

-- The lifetime of outdoor plastics and latex paints would be shortened.

 Evidence supports the conclusion that ozone depletion could seriously influence crops and aquatics.

-- Knowledge is limited, but experimental data indicate crop production may be reduced and ecosystems disturbed.

-- Field experiments have not been done, but laboratory data indicate aquatic organisms are sensitive to higher UVB, especially during critical breeding seasons.

 Higher emissions of CFCs and its indirect effects of vertical ozone re-distribution will raise global temperatures and change climate.

#### Cost/Benefit

- Cost/benefit analysis has been carried out for known health effects (skin cancern deaths, non-fatal skin cancers, cataracts) based on EPA's Risk Assessment.
- Potential effects of ozone depletion on plants, aquatic life, the human immune system, ground-level ozone concentrations, polymer degradation, and sea level rise were not quantified.
- A range of assumptions were used in the analysis to reflect economic uncertainties and lack of inter-agency consensus on the values of key parameters.
- The analysis is based on EPA models which attempt to project health impacts through year 2165 and assume no changes in technology, medicine or human behavior.
- o Conclusions:

-- The economic benefits from a protocol freeze (at 1986 levels with less than full international participation) of CFC emissions are substantially greater than the costs over all plausible assumptions and ranges of uncertainty.

-- The economic benefits of a protocol freeze plus a 20% reduction in CFC emissions are also in almost all cases substantially in excess of the costs.

-- The incremental benefits of the additional 20% reduction beyond the freeze are in most cases in excess of the incremental costs of the cut.

-- The benefits of an additional 30% reduction (beyond the freeze plus 20% reduction) appear in some cases to be greater than the incremental costs, and in other cases to be less. Further scientific, technical, and economic review will be valuable in evaluating benefits and costs before implementing this step.

#### ISSUES AND DISCUSSION

At the May 20 Council meeting, the status of the international ozone negotiations was provided. It included a review of the November 28, 1986 Circular 175, which was approved by Under Secretary of State Allen Wallis, and which authorized the U.S. delegation to negotiate a protocol. The approval process for the Circular 175 has been criticized by some members of the Working Group, on the basis that numerous departments and agencies had not concurred on the Circular, or that concurrence was by individuals not at policy-making levels. The Circular 175 authorized the U.S. delegation to negotiate a protocol providing for:

I. A near-term freeze on the combined emissions of the most ozone-depleting substances;

II. A long-term scheduled reduction of emissions of these chemicals down to the point of eliminating emissions from all but limited uses for which no substitutes are commercially available (such reduction could be as much as 95%), subject to III; and

III. Periodic review of the protocol provisions based upon regular assessment of the science. The review could remove or add chemicals, or change the schedule or the emission reduction target.

The international negotiations to date have resulted in a Chairman's Text, a proposed protocol to which negotiating countries have been asked to respond.

The Working Group recommends that the Council support continuation of negotiations pursuant to the current Circular 175. The Working Group also recommends however, that additional guidance be given to the U.S. negotiators, based on reviews by a wider range of agencies such as those represented on the Council.

The following are issues for which the Working Group feels additional guidance to the negotiators may be appropriate.

A. PARTICIPATION AND TRADE PROVISIONS

There are many complex issues pertaining to fair trade provisions and participation of developing countries in the protocol.

# 1. What should be the U.S. position regarding international participation in the protocol?

The Working Group feels that the U.S. delegation should seek maximum international participation in the protocol. To many, participation is the key issue, because growth of emissions from non-participating countries would offset the emissions reductions of those who are parties to the protocol, thereby hindering overall attainment of protocol objectives.

Developing countries are an important part of the participation issue. While the 48 countries participating in the protocol negotiations account for over 90% of the current production, substantial growth of production and consumption is anticipated in developing countries. The U.S. and the United Nations Environment Program (UNEP) have expended considerable effort to encourage broad participation by developing countries. However, only relatively few have shown the interest or the expertise to participate. Parties to the protocol would not be able to prevent non-joining countries from producing CFCs for their internal market or from exporting to other non-parties, but, if the protocol provides for trade sanctions, parties could prevent non-parties from profiting through international trade with protocol parties.

A strong protocol, including the major producing and consuming countries, should lead to earlier development of substitute products, and might discourage non-joiners from investing heavily in CFC technology that would not generate trade with parties to the protocol. Further, some believe that the very existence of a protocol, as an expression of concern by the international community, increases the pressure on non-member countries to join; in essence, if they continue to produce CFCs, they are exposed as behaving irresponsibly on a matter of global import.

The following options are proposed for the Council's consideration:

a. <u>Give the U.S. delegation discretion for seeking maximum</u> participation.

b. Develop criteria for acceptable levels of participation, e.g. minimum participation of countries producing a specified percentage of the total global CFC/Halon production; or a formula requiring minimum participation of countries accounting for a specified portion of the world population.

c. <u>Wait to reassess the U.S. position after we know the extent</u> of participation by other countries.

To encourage the participation of developing countries, some parties favor granting developing countries a limited grace period from compliance with protocol provisions. Such a grace period would be allowed in recognition of the importance of having global participation in the 21st century, and in recognition of the fact that developing countries have not received the benefits of CFC and Halon use. The length of the grace period and the levels of production/consumption that would be permitted are questions that would need to be resolved.

#### Voting among parties to the protocol.

Also at issue is the voting process for making future decisions under the protocol. This could include decisions on future reductions. The Working Group recommends that the U.S. delegation negotiate for a system of voting which would give due weight to the major producing and consuming countries.

# 3. The control formula and trade provisions

The Working Group recommends that the Council direct the U.S. delegation to continue to seek to include in the protocol an effective formula to control emissions with accountability, the fewest possible restrictions on the flow of trade and capital among parties, the most favorable formula for U.S. industry, stimulation of substitutes and innovative emission controls, and with no greater restriction on trade involving the U.S. than will be adopted and enforced by other nations.

<u>Trade</u>: The U.S. has pushed for a strong protocol article on trade sanctions to be imposed on parties which have not signed the protocol. This would limit imports not only of the controlled chemicals but also of products containing these chemicals (e.g., air conditioners or foam insulation). The U.S. has pushed for a study of the feasibility of limiting imports of products manufactured using the controlled chemicals (e.g., electronic equipment). The intent of the trade article would be to provide a "stick" for encouraging others to join and to limit the impact on ozone depletion and the transfer of commercial benefits from parties to the protocol to countries which have not joined.

This would represent a major policy decision, as it could be an important precedent for using trade sanctions to enforce environmental regulations. Also to be decided is whether trade sanctions should be applicable to parties who materially violate their protocol obligations.

<u>Control</u> Formula: Since it is not possible to measure emissions directly, the negotiators have explored alternative formulas to control emissions which consider production, consumption, imports and destruction.

## 4. <u>Should the U.S. seek protocol provisions for reporting</u>, monitoring, verification and enforcement provisions?

There are many complex issues relating to enforcement of a protocol. Because of the enforcement roles of EPA and U.S. environmental groups, our compliance with the protocol is apt to be substantial. Most other nations do not have such enforcement mechanisms. No monitoring or verification system has been identified to date. A system of on-site inspections for the presence of new or expanded CFC-producing facilities would be expensive and probably ineffective because of the large land areas involved.

Some Working Group members believe the U.S. should insist upon strong monitoring and reporting provisions in a protocol. Some favor the U.S. negotiating for strong provisions, and exploring the feasibility and cost effectiveness of establishing ad hoc inspection teams to investigate any alleged violations of protocol requirements. Trade provisions could at least prevent entry of such production into international trade with parties to the protocol. The following options are presented for the Council's consideration:

a. <u>Give the U.S. delegation discretion for seeking such</u> provisions.

b. Insist that the protocol include such provisions.

5. Should the U.S. attempt to receive "credit" for its 1978 unilateral voluntary ban on CFC-producing non-essential aerosols?

Some believe that in addition to a freeze, other nations should ban non-essential aerosols as the U.S. did in 1978. Otherwise, many nations might be able to meet their obligation to reduce CFC emissions through the simple expedient of banning such aerosols, while the U.S. is required to cut back on other products using CFCs. One form of recognition may be to require other countries to ban non-essential aerosols in addition to meeting other protocol requirements.

The U.S. attempted unsuccessfully to get such credit two years ago during the negotiation of the Vienna Convention on the ozone layer, and some believe that if the U.S. were to insist upon such credit as a condition of a protocol, the negotiations would come to a standstill as in 1985. Some argue that even with the aerosol ban, the U.S. remains responsible for most of the long-lived CFCs in the stratosphere, and the U.S. per capita CFC consumption is still the world's highest.

The Working Group recommends that the Council consider and provide guidance for the U.S. delegation as to whether or not we should attempt to gain credit for our previous actions.

#### B. AN EMISSIONS CONTROL PROTOCOL

The aforementioned Chairman's Text contains proposals related to (1) a freeze on emissions, and (2) emissions reductions beyond a freeze. The Working Group discussed these at length.

1. A Freeze on Emissions. The following are major questions:

a. What chemicals should the freeze cover?

The Chairman's Text provides for a freeze on emissions at 1986 levels which would cover CFCs 11, 12, 113, 114, and 115. Due to a technicality, Halons are not now included.

The Working Group consensus is that the freeze should include all of these CFCs as well as Halons 1201 and 1311. The U.S. delegation will be seeking to expand the protocol to include the Halons. From a purely scientific perspective all chemicals containing chlorine and bromine, weighted by the ozone depleting potential, should be considered for the protocol, both for the freeze and for potential future reductions. The Chairman's Text is somewhat less than a purely scientific perspective because only the fully halogenated chemicals (CFCs 11, 12, 113, 114 and 115, and Halons 1201 and 1311) are being considered for inclusion. Chemicals such as CFC 22 and methyl chloroform which are only partially halogenated are not being considered as they are believed to be part of the solution and have relatively low ozone depleting potential.

Concern has been raised with regards to reductions in Halons 1201 and 1311 and CFC 113 because of their strategic value to the U.S., and the apparent lack of suitable substitutes. This is a legitimate concern but one that can be handled if controls are on the sum of the ozone depleting potential of all chemicals, rather than on individual substances. This will allow each individual country the flexibility to live within the internationally agreed protocol with the least interference on how a country wants to implement the protocol.

### b. When should a freeze on emissions occur?

The Chairman's Text proposes that the freeze take effect within two years of entry into force. There is uncertainty as to when entry into force will occur, but the best estimate is that it will be in the 1988-90 time period. The Working Group consensus is that a freeze on emissions should go into effect within one to two years after entry into force of the protocol.

#### 2. Reductions Beyond a Freeze

#### a. What chemicals should the reductions cover?

The Chairman's Text proposes that the additional reductions beyond a freeze include CFCs 11, 12, 113, 114 and 115. The Working Group consensus is that any additional reductions should cover CFCs 11 and 12; however, there are questions about the coverage of CFCs 113, 114, 115, and Halons 1201 and 1311. National security concerns argue against including the Halons in any reductions. There is also a national defense and security concern with including CFC 113 in any reductions beyond a freeze, especially given 113's importance for certain high-technology electrical applications. The questions regarding coverage of CFCs 114 and 115 concern their potential use as substitutes for controlled chemicals and their present low usage.

#### b. How much and when?

The Chairman's Text provides for a 20% reduction to take effect 4 years after entry into force (1992-94) and an additional 30% reduction to take effect either 6 years (1994-96) or 8 years (1996-98) after entry into force.

With respect to any future reductions, the Working Group recognizes the importance of the future assessments of science, technology, economics and environment.

The Working Group identified distinct issues surrounding each potential reduction. With respect to the 20% reduction, some favor it because it can be accomplished with existing industrial processes and because reductions beyond a freeze may be needed to counterbalance less than full participation in a freeze. Yet others note there are uncertainties as to the need for any additional reductions.

Regarding the additional 30% reduction, some favor its inclusion on the basis of judgements about the science and potential adverse health effects. Others emphasize, however, the uncertainties about the need to commit at this time to this additional measure. One or more scientific reviews would be available prior to this reduction going into effect.

The Working Group recommends that the Council discuss and provide guidance on whether the U.S. position is to support:

- 1. A 20% reduction beyond a freeze.
- An additional 30% reduction.
- Additional reductions beyond 50%.

c. <u>Should the reductions be automatic (subject to reversal by a</u> 2/3 vote) or contingent upon a positive vote of a majority of the parties?

The Chairman's Text proposes an initial 20% reduction to take effect automatically (implicitly reversible by a 2/3 vote).

The Text provides two alternative implementing mechanisms for the next 30% reduction -- 6 years after entry into force if the majority of the parties so decide, or 8 years after entry into force unless reversed by a two-third majority of the parties.

There are strong views in the Working Group on the implementing mechanism for the additional 30% percent reduction. Many do not wish to commit to the reduction at this time unless it is contingent upon a positive vote of a majority of the parties. Others, however, believe the evidence warrants committing to this reduction at this time.

Most believe the future assessments of the science, technology, economics and environment are important to these reduction decisions. There are differing views, however, on how such future assessments ought to factor into reduction decisions. Some believe final reduction decisions ought to follow future assessments, whereas others believe reductions should be scheduled now with an opportunity for reversal based upon future assessments.

The Working Group recommends that the Council provide guidance on whether the U.S. should support automatic reductions of:

a. 20% beyond the freeze.

b. an additional 30%.

C. ISSUES FOR LATER CONSIDERATION

The Working Group identified several related issues that will require further consideration. They include:

1. The relationship between international protocol and domestic regulations. Since the overall objective of the protocol is to avoid or reduce health and environmental risks, compliance with the international protocol will necessarily result in domestic regulation. There is legal precedent for such a linkage between international agreements and subsequent domestic regulations.

2. <u>Non-Regulatory Approaches</u>. There is no reason why the Nation's efforts to achieve the objectives sought in the protocol should be limited to a regulatory approach. The suggestion has been made that if the government imposes such regulatory burdens upon the people and the economy of the U.S., consideration should also be given to policies which may ease the regulatory burdens, including, but not limited to, possibly rendering unnecessary imposition of regulations beyond those necessary to assure U.S. compliance with the international protocol.

Such a domestic, non-regulatory supplement to the international protocol might, for example, contain elements intended to eliminate government barriers to, or facilitate, the development of: substitutes for covered chemicals, technology to mitigate or eliminate the adverse effects of chemical emissions upon stratospheric ozone, or medical advancements in the understanding and treatment of the problems caused by ozone depletion.

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[NOTE: This paper attempts to protray the general flavor of the Working Group discussions on this very complex issue. It was not possible to include all of the important comments contributed by representatives of the participating agencies.]

# DRAFT

# THE WHITE HOUSE

WASHINGTON

DOMESTIC POLICY COUNCIL

Thursday, June 11, 1987

11:00 a.m.

Roosevelt Room

# AGENDA

1. Stratospheric Ozone -- Lee M. Thomas

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1. J. -

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Lee M. Thomas Administrator Environmental Protection Agency

Beryl W. Sprinkel Chairman Council of Economic Advisers

# DRAFT

### FOR NANCY'S APPROVAL:

DPC Meeting on Thursday, May 11, 1987:

### STRATOSPHERIC OZONE

Additional Invitees: (principals only)

Department of State Department of the Treasury Department of Agriculture Department of Commerce Department of Transportation Ambassador Yeutter, United States Trade Representative Mr. Thomas, Administrator, Environmental Protection Agency Mr. Sprinkel, Chairman, Council of Economic Advisers Mr. Hill, Chairman, Council on Environmental Quality Mr. Graham, White House Science Advisor

For Presentation:

Lee M. Thomas (DOB: 6/13/44) Administrator Environmental Protection Agency

Beryl W. Sprinkel Chairman Council of Economic Advisers

Richard E. Benedick (DOB: 5/10/35) Deputy Assistant Secretary for Environment, Health and Natural Resources Department of State

WASHINGTON June 10, 1987

MEMORANDUM FOR THE DOMESTIC POLICE COUNCIL

FROM:

RALPH C. BLEDSOE/ Spi Chelpe

SUBJECT:

ECT: Domestic Policy Council Meeting on June 11, 1987

Attached are an agenda and materials for the Domestic Policy Council meeting scheduled for Thursday, June 11, 1987 at 11:00 a.m. in the Roosevelt Room. The agenda item to be discussed is Stratospheric Ozone.

This will be a continuation of the discussion at the May 20 meeting, at which additional information was requested on the legal and legislative, health, climatic, and cost/benefit aspects of this issue. The attached paper contains a brief description of these, and includes additional points for discussion about the U.S. positions that should be taken during the international negotiations.

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Attachments

# DRAFT

June 10, 1987

MEMORANDUM FOR THE DOMESTIC POLICY COUNCIL

FROM: THE ENERGY, NATURAL RESOURCES & ENVIRONMENT WORKING GROUP

SUBJECT: Stratospheric Ozone

On May 20, 1987, the Council met to discuss the international protocol negotiations currently underway to limit emissions of ozone depleting chemicals. Several questions were raised and the Working Group was asked to provide answers. The questions were:

- \* What are the legislative and legal impacts of an international ozone protocol?
- \* What are the most up-to-date scientific data on climatic and health effects of ozone depletion?
- \* What is the cost/benefit effect of an international protocol restricting ozone depleting chemicals?

The following has been summarized by the Working Group after discussion of detailed presentations by experts in each area.

#### Climatic and Atmospheric

- Since 1960 the natural variability of the total global column of ozone has been about 3%.
- Observations have shown (1) a decrease in ozone of about 7% during the last decade in the upper part of the stratosphere; and (2) a 40% decrease in total column ozone over Antarctica in the spring season since the mid-1970's. Whether the recent changes in column and upper stratospheric ozone are due to natural phenomena or in part to CFCs remains an open question.
- O Continued growth of CFC and Halon emissions at 3% per year is predicted to yield a globally averaged ozone depletion of 6% by the year 2040, and more thereafter, which would be greater than natural variability. In contrast, a true global freeze on emissions of CFCs and Halons (i.e. full international participation and compliance) is predicted to yield a maximum global average column ozone depletion of less than 1%. Ozone depletions at high latitudes are predicted to be 2-3 times larger than the global average.
- A true global freeze would limit column ozone depletions to less than the natural variability. A protocol resulting in less than full compliance among developed countries and

allowing for substantial growth in CFC usage in developing countries, would fall far short of a true global freeze.

- Ozone depletions in the upper part of the stratosphere greater than 25% are predicted to occur even in the case of a true global freeze. This would lead to a local cooling greater than natural variability. The consequences of this cooling for the earth's climate cannot be predicted at this time.
- While theoretical models simulate the present atmosphere quite well, they are not perfect, and there is a factor of two to three uncertainty on their predictive abilities.
- o If there is environmental damage due to CFCs and Halons, their long atmospheric lifetimes would mean that recovery would take many decades even after complete cessation of emissions.

#### Health

Projected ozone depletion will increase health effects of UVB.

-- Without ozone depletion, projections show UVB is a serious problem, and will cause:

- 2,977,000 skin cancer deaths of Americans born before 2075,
- 165 million skin cancer cases,
- 426,516,000 cataracts.

-- Without a protocol, an ozone depletion of 26% is expected in 2075. This would increase UVB related health effects by:

- 2 million additional skin cancer deaths,
- 98 million additional skin cancer cases,
- 43 million additional cataracts.

-- A freeze would decrease ozone depletion to 7.7% and avert UVB damage

- 1.6 million additional American deaths would be averted,
- 79 million additional cases would be averted.
- 32 million cataracts would be averted.

-- A 20% emissions reduction protocol would decrease ozone depletion to 6.1% and avert additional damage.

- 80,000 American deaths would be averted over a freeze,
- 4 million additional skin cancer cases would be averted over a freeze,

- 2 million cataracts would be averted over a freeze.

-- A 50% global protocol would reduce depletion to 3.2% decreasing damage even more.

- 130 thousand additional American deaths would be averted over a 20% protocol,
- 7 million additional skin cancer cases would be averted

over a 20% protocol, - 7 million additional cataracts would be averted over a

20% protocol.

-- Uncertainties include future ozone depletion, the action spectra and estimates of dose-response coefficients.

- Considering quantifiable uncertainties, there is a 50% chance that the actual damages will be between 50% and 125% of the above estimates.

- There is a 90% chance that the actual damages will be between 20% and 260% of the above estimates.

-- UVB would suppress the immune system.

Evidence suggests a relationship to infectious disease.
A relationship has been demonstrated in herpes simplex and the tropical disease, leishmanias.

 Evidence supports the conclusion that ozone depletion would exacerbate existing environmental problems.

-- Photochemical air pollution in places like Los Angeles would probably worsen.

-- The lifetime of outdoor plastics and latex paints would be shortened.

 Evidence supports the conclusion that ozone depletion could seriously influence crops and aquatics.

-- Knowledge is limited, but experimental data indicate crop production may be reduced and ecosystems disturbed.

-- Field experiments have not been done, but laboratory data indicate aquatic organisms are sensitive to higher UVB, especially during critical breeding seasons.

 Higher emissions of CFCs and its indirect effects of vertical ozone re-distribution will raise global temperatures and change climate.

#### Cost/Benefit

- Cost/benefit analysis has been carried out for known health effects (skin cancern deaths, non-fatal skin cancers, cataracts) based on EPA's Risk Assessment.
- Potential effects of ozone depletion on plants, aquatic life, the human immune system, ground-level ozone concentrations,

polymer degradation, and sea level rise were not quantified.

- A range of assumptions were used in the analysis to reflect economic uncertainties and lack of inter-agency consensus on the values of key parameters.
- o The analysis is based on EPA models which attempt to project health impacts through year 2165 and assume no changes in technology, medicine or human behavior.
- The analysis assumes increasing noncompliance with protocol over time; it is, however, likely that an effective protocol will encourage the replacement of controlled chemicals with substitutes as they become available.
- o Conclusions:

-- The economic benefits from a protocol freeze (at 1986 levels with less than full international participation) of CFC emissions are substantially greater than the costs over all plausible assumptions and ranges of uncertainty.

-- The economic benefits of a protocol freeze plus a 20% reduction in CFC emissions are also in almost all cases substantially in excess of the costs.

-- The incremental benefits of the additional 20% reduction beyond the freeze are in most cases in excess of the incremental costs of the cut.

-- The benefits of an additional 30% reduction (beyond the freeze plus 20% reduction) appear in some cases to be greater than the incremental costs, and in other cases to be less. Further scientific, technical, and economic review will be valuable in evaluating benefits and costs before implementing this step.

#### ISSUES AND DISCUSSION

At the May 20 Council meeting, the status of the international ozone negotiations was provided. It included a review of the November 28, 1986 Circular 175, which was approved by Under Secretary of State Allen Wallis, and which authorized the U.S. delegation to negotiate a protocol. The approval process for the Circular 175 has been criticized by some members of the Working Group, on the basis that numerous departments and agencies had not concurred on the Circular, or that concurrence was by individuals not at policy-making levels. The Circular 175 authorized the U.S. delegation to negotiate a protocol providing for:

I. A near-term freeze on the combined emissions of the most ozone-depleting substances;

II. A long-term scheduled reduction of emissions of these chemicals down to the point of eliminating emissions from all but limited uses for which no substitutes are commercially available (such reduction could be as much as 95%), subject to III; and

III. Periodic review of the protocol provisions based upon regular assessment of the science. The review could remove or add chemicals, or change the schedule or the emission reduction target.

The international negotiations to date have resulted in a Chairman's Text, for which negotiating countries have been asked to review and submit views.

The Working Group recommends that the Council support continuation of negotiations pursuant to the current Circular 175. The Working Group also recommends however, that additional guidance be given to the U.S. negotiators, based on reviews by a wider range of agencies such as those represented on the Council.

The following are issues for which the Working Group feels additional guidance to the negotiators may be appropriate.

A. PARTICIPATION AND TRADE PROVISIONS

There are many complex issues pertaining to fair trade provisions and participation of developing countries in the protocol.

1. What should be the U.S. position regarding international participation in the protocol?

The Working Group feels that the U.S. delegation should seek maximum international participation in the protocol. To many, participation is the key issue, because growth of emissions from non-participating countries would offset the emissions reductions of those who are parties to the protocol, thereby hindering overall attainment of protocol objectives.

Developing countries are an important part of the participation issue. The U.S. and the United Nations Environment Program (UNEP) have expended considerable effort to encourage broad participation by developing countries. However, only relatively few have shown the interest or the expertise to participate. Parties to the protocol would not be able to prevent non-joining countries from producing CFCs for their internal market, but could prevent them from profiting through international trade with protocol parties.

A strong protocol, including the major producing and consuming countries, should lead to earlier development of substitute products, and might discourage non-joiners from investing heavily in CFC technology that would not generate trade with parties to the protocol. Further, the very existence of a protocol, as an expression of concern by the international community, increases the pressure on non-member countries to join; in essence, if they continue to produce CFCs, they are exposed as behaving irresponsibly on a matter of global import.

The following options are proposed for the Council's consideration:

a. <u>Give the U.S. delegation discretion for seeking maximum</u> participation.

b. Develop criteria for acceptable levels of participation, e.g. minimum participation of countries producing a specified percentage of the total global CFC/Halon production; or a formula requiring minimum participation of countries accounting for a specified portion of the world population.

c. Wait to reassess the U.S. position after we know the extent of participation by other countries.

To encourage the participation of developing countries, some parties favor granting developing countries a limited grace period from compliance with protocol provisions. Such a grace period would be allowed in recognition of the importance of having global participation in the 21st century, and in recognition of the fact that developing countries have not received the benefits of CFC and Halon use. The length of the grace period and the levels of production/consumption that would be permitted are questions that would need to be resolved.

2. Voting among parties to the protocol.

Also at issue is the voting process for making future decisions under the protocol. This could include decisions on future reductions. The Working Group recommends that the U.S. delegation negotiate for a system of voting which would give due weight to the major producing and consuming countries.

3. The control formula and trade provisions?

The Working Group recommends that the Council direct the U.S. delegation to continue to seek to include in the protocol an effective formula to control emissions with accountability, the fewest possible restrictions on the flow of trade and capital among parties, the most favorable formula for U.S. industry, and stimulation of substitutes and innovative emission controls.

The U.S. has pushed for a strong protocol article on trade sanctions to be imposed on parties which have not signed the protocol. This would limit imports not only of the controlled chemicals but also of products containing these chemicals (e.g., air conditioners or foam insulation). The U.S. has pushed for a study of the feasibility of limiting imports of products manufactured using the controlled chemicals (e.g., electronic equipment). The intent of the trade article would be to provide a "stick" for encouraging others to join and to limit the impact on ozone depletion and the transfer of commercial benefits from parties to the protocol to countries which have not joined.

This would represent a major policy decision, as it could be an important precedent for using trade sanctions to enforce environmental regulations. Also to be decided is whether trade sanctions should be applicable to parties who materially violate their protocol obligations.

# 4. <u>Should the U.S. seek protocol provisions for reporting</u>, monitoring, verification and enforcement provisions.

Since it is not possible to measure emissions directly, the negotiators have explored alternative formulas to control emissions which consider production, consumption, imports and destruction. This is only one of the many complex issues relating to enforcement of a protocol. A system of on-site inspections for the presence of new or expanded CFC-producing facilities would be expensive and probably ineffective because of the large land areas involved.

Some Working Group members believe the U.S. should insist upon strong monitoring and reporting provisions in a protocol. Some favor the U.S. negotiating for strong provisions, and exploring the feasibility and cost effectiveness of establishing ad hoc inspection teams to investigate any alleged violations of protocol requirements. Trade provisions could at least prevent entry of such production into international trade with parties to the protocol.

Because of the enforcement roles of EPA and U.S. environmental groups, our compliance with the protocol is apt to be substantial. Most other nations do not have such enforcement mechanisms. No monitoring or verification system has been identified to date.

The following options are presented for the Council's consideration:

a. <u>Give the U.S. delegation discretion for seeking such</u> provisions.

b. Insist that the protocol include such provisions.

# 5. <u>Should the U.S. attempt to receive "credit" for its 1978</u> unilateral voluntary ban on CFC-producing non-essential aerosols?

Some believe that in addition to a freeze, other nations should ban non-essential aerosols as the U.S. did in 1978. Otherwise, many nations might be able to meet their obligation to reduce CFC emissions through the simple expedient of banning such aerosols, while the U.S. is required to cut back on other products using CFCs. One form of recognition may be to require other countries to ban non-essential aerosols in addition to meeting other protocol requirements.

The U.S. attempted unsuccessfully to get such credit two years ago during the negotiation of the Vienna Convention on the ozone layer, and some believe that if the U.S. were to insist upon such credit as a condition of a protocol, the negotiations would come to a standstill as in 1985. Some argue that even with the aerosol ban, the U.S. remains responsible for most of the long-lived CFCs in the stratosphere, and the U.S. per capita CFC consumption is still the world's highest.

The Working Group recommends that the Council consider and provide guidance for the U.S. delegation as to whether or not we should attempt to gain credit for our previous actions.

#### B. AN EMISSIONS CONTROL PROTOCOL

The aforementioned Chairman's Text contains proposals related to (1) a freeze on emissions, and (2) emissions reductions beyond a freeze. The Working Group discussed these at length.

1. A Freeze on Emissions. The following are major questions:

#### a. What chemicals should the freeze cover?

The Chairman's Text provides for a freeze on emissions at 1986 levels which would cover CFCs 11, 12, 113, 114, and 115. Due to a technicality, Halons are not now included.

The Working Group consensus is that the freeze should include all of these CFCs as well as Halons 1201 and 1311. The U.S. delegation will be seeking to expand the protocol to include the Halons.

From a purely scientific perspective all chemicals containing chlorine and bromine, weighted by the ozone depleting potential, should be considered for the protocol, both for the freeze and for potential future reductions. The Chairman's Text is somewhat less than a purely scientific perspective because only the fully halogenated chemicals (CFCs 11, 12, 113, 114 and 115, and Halons 1201 and 1311) are being considered for inclusion. Chemicals such as CFC 22 and methyl chloroform which are only partially halogenated are not being considered as they are believed to be part of the solution and have relatively low ozone depleting potential.

Concern has been raised with regards to reductions in Halons 1201 and 1311 and CFC 113 because of their strategic value to the U.S., and the apparent lack of suitable substitutes. This is a legitimate concern but one that can be handled if controls are on the sum of the ozone depleting potential of all chemicals, rather than on individual substances. This will allow each individual country the flexibility to live within the internationally agreed protocol with the least interference on how a country wants to implement the protocol.

### b. When should a freeze on emissions occur?

The Chairman's Text proposes that the freeze take effect within two years of entry into force. There is uncertainty as to when entry into force will occur, but the best estimate is that it will be in the 1988-90 time period. The Working Group consensus is that a freeze on emissions should go into effect within one to two years after entry into force of the protocol.

### 2. Reductions Beyond a Freeze

### a. What chemicals should the reductions cover?

The Chairman's Text proposes that the additional reductions beyond a freeze include CFCs 11, 12, 113, 114 and 115. The Working Group consensus is that any additional reductions should cover CFCs 11 and 12; however, there are questions about the coverage of CFCs 113, 114, 115, and Halons 1201 and 1311. National security concerns argue against including the Halons in any reductions. There is also a national defense and security concern with including CFC 113 in any reductions beyond a freeze, especially given 113's importance for certain high-technology electrical applications. The questions regarding coverage of CFCs 114 and 115 concern their potential use as substitutes for controlled chemicals and their present low usage.

#### b. How much and when?

The Chairman's Text provides for a 20% reduction to take effect 4 years after entry into force (1992-94) and an additional 30% reduction to take effect either 6 years (1994-96) or 8 years (1996-98) after entry into force.

The Working Group identified distinct issues surrounding each potential reduction. With respect to the 20% reduction, some favor it because it can be accomplished with existing industrial processes and because reductions beyond a freeze may be needed to counterbalance less than full participation in a freeze. Yet others note there are uncertainties as to the need for any additional reductions.

Regarding the additional 30% reduction, some favor its inclusion on the basis of judgements about the science and potential adverse health effects. Others emphasize, however, the uncertainties about the need to commit at this time to this additional measure. One or more scientific reviews would be available prior to this reduction going into effect. The Working Group recommends that the Council discuss and provide guidance on whether the U.S. position is to support:

a. A 20% reduction beyond a freeze.

b. An additional 30% reduction.

c. Additional reductions beyond 50%.

c. Should the reductions be automatic (subject to reversal by a 2/3 vote) or contingent upon a positive vote of a majority of the parties?

The Chairman's Text proposes an initial 20% reduction to take effect automatically (implicitly reversible by a 2/3 vote).

The Text provides two alternative implementing mechanisms for the next 30% reduction -- 6 years after entry into force if the majority of the parties so decide, or 8 years after entry into force unless reversed by a two-third majority of the parties.

There are strong views in the Working Group on the implementing mechanism for the additional 30% percent reduction. Many do not wish to commit to the reduction at this time unless it is contingent upon a positive vote of a majority of the parties. Others, however, believe the evidence warrants committing to this reduction at this time.

The Working Group recommends that the Council provide guidance on whether the U.S. should support automatic reductions of:

a. 20% beyond the freeze.

b. an additional 30%.

C. ISSUES FOR LATER CONSIDERATION

The Working Group briefly discussed several related issues that will require further consideration. They include:

1. The relationship between international protocol and domestic regulations. Since the overall objective of the protocol is to avoid or reduce health and environmental risks, compliance with the international protocol will necessarily result in domestic regulation. There is legal precedence for such a linkage between international agreements and subsequent domestic regulations.

2. <u>Non-Regulatory Approaches</u>. There is no reason why the Nation's efforts to achieve the objectives sought in the protocol should be limited to a regulatory approach. The suggestion has been made that if the government imposes such regulatory burdens upon the people and the economy of the U.S., consideration should

also be given to policies which may ease the regulatory burdens, including, but not limited to, possibly rendering unnecessary imposition of regulations beyond those necessary to assure U.S. compliance with the international protocol.

Such a domestic, non-regulatory supplement to the international protocol might, for example, contain elements intended to eliminate government barriers to, or facilitate, the development of: substitutes for covered chemicals, technology to mitigate or eliminate the adverse effects of chemical emissions upon stratospheric ozone, or medical advancements in the understanding and treatment of the problems caused by ozone depletion.

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State Department DPC guidance to the U.S. negotiators is now sought on the

#### A. PARTICIPATION AND TRADE PROVISIONS

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2. What should be the U.S. objective regarding voting among parties to the protocol?

The Working Group consensus is that the delegation negotiate for a system of voting which would credit the major producing and consuming countries.

# 3. What should be the U.S. objective regarding the control formula and trade provisions?

It is the consensus of the Working Group that the U.S. delegation seek to include in the protocol an effective formula to control emissions with accountability, the fewest possible restrictions on the flow of trade and capital among parties, the most favorable formula for U.S. industry, and strong monitoring and reporting provisions.

Since it is not possible to measure emissions directly, the wo negotiators are exploring alternative formulas to control emissions which consider production, consumption, imports and destruction.

The U.S. has pushed for a strong protocol article on trade sanctions to be imposed on parties which have not signed the protocol. A This would limit imports not the only of controlled chemicals but also of products containing these chemicals (e.g., air conditioners or foam insulation). The U.S. has pushed for a study of the feasibility of limiting The using products manufactured the controlled imports of chemicals (e.g., electronic equipment). The intent of the trade article would be to provide a "stick" for encouraging others to join and to limit the impact on ozone depletion and the transfer of commercial benefits from parties to the protocol to countries which have not joined,

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The U.S. delegation strongly objects to raising this issue again. The delegation attempted unsuccessfully to get such credit during the negotiation of the Vienna Convention on the ozone layer, and the delegation believes that if the U.S. were to insist upon such credit as a condition of a protocol, the negotiations would deteriorate.

5. <u>Should the U.S. negotiators insist upon or seek protocol</u> provisions providing for reporting, monitoring, verification and enforcement provisions?

The U.S. delegation is working through many complex issues relating to enforcement of a potential protocol. A system of on-site inspections for the presence of new or expanded CFC-producing facilities would be expensive and probably ineffective because of the large land areas involved. Trade provisions could at least prevent entry of such production into international trade worth parties to fue protocol.

Some favor the U.S. negotiating for strong monitoring and reporting provisions, and exploring the feasibility and cost effectiveness of establishing ad hoc inspection teams to investigate any alleged violations of protocol requirements.

AN EMISSIONS CONTROL PROTOCOL

In accordance with the existing Circular 175, the negotiators have produced a Chairman's Text of a proposed emissions control protocol. The Chairman's Text contains a series of proposals related to (1) a freeze on emissions, and (2) emissions reductions beyond a freeze. There are many remaining questions relating to potential emissions control provisions.

1. Questions Relating to a Freeze on Emissions

a. What chemicals should the freeze cover?

The Chairman's Text provides for a freeze on emissions at

1986 levels which would cover CFCs 11, 12, 113, 114, and 115.

The Working Group consensus is that the freeze should include all of these CFCs as well as and Halons 1201 and 1311. The U.S. delegation will be seeking to expand the protocol to include the Halons.

From a purely scientific perspective all chlorine and bromine containing chemicals, weighted by their ozone depleting potential should be considered for the protocol. This should be the case for both the freeze and for potential future reductions. The Chairman's Text is, therefore, already less than logical from a purely scientific perspective because only the fully halogenated chemicals (CFCs 11, 12, 113, 114 and 115, and Halons 1201 and 1311) are being considered for inclusion. Chemcials such as CFC 22 and methyl chloroform which are only partially halogenated are not being considered as EPA correctly believes them to be part of the solution as they have relatively low ozone depleting potential.

Concern has been raised with regards to reductions in Halons 1201 and 1311 and CFC 113 because of their strategic value to the U.S., and the apparent lack of suitable substitutes. This is a legitimate concern but can easily be taken care of if controls are not on individual substances but on the sum of the ozone depleting potential of all chemicals. This allows each individual country the maximum flexibility to live within the internationally agreed protocol with the least interference on how each country wants to implement the protocol.

# b. When should a freeze on emissions occur?

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The Chairman's Text proposes that the freeze take effect within two years of entry into force. There is uncertainty as to when entry into force will occur; it could occur as early as 1988. The Working Group consensus is that a freeze on emissions should go into effect within one to two years after entry into force of the protocol.

With respect to the potential freeze, some have asked how the level of participation in the protocol freeze will affect the need for further reductions beyond the freeze. This is an important question in that low participation in a freeze may result in no cessation of emissions of ozone-depleting chemicals.

#### a. What chemicals should the reductions cover?

The Chairman's Text proposes that the additional reductions beyond a freeze include CFCs 11, 12, 113, 114 and 115.

The Working Group consensus is that any additional reductions should cover CFCs 11 and 12; however, there are questions about the coverage of CFCs 113, 114, 115, and Halons 1201 and 1311. National security concerns argue against including the Halons in any of the reductions beyond a freeze. There is also a national defense and security concern with including CFC 113 in any reductions beyond a freeze, especially given 113's importance for certain high-technology electrical applications. The questions regarding coverage of CFCs 114 and 115 concern their potential use as substitutes for controlled chemicals.

#### b. How much and when?

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The Chairman's Text provides for a 20% reduction to take effect 4 years after entry into force (1992) and a 30% reduction to take effect either 6 years (1994) or 8 years (1996) after entry into force.

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The Working Group has identified distinct issues surrounding each potential reduction. With respect to the 20% reduction, some favor it because it can be accomplished with existing industrial processes and because reductions beyond a freeze may be needed to counterbalance less than full participation in a freeze. Yet others note there are uncertainties as to the need for any additional reductions beyond a freeze and Superbulled

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The Text provides two alternative implementing mechanisms for the next 30% reduction -- either 6 years after entry into force if the majority of the parties so decide, or 8 years after entry into force unless reversed by a two-third majority of the parties.

There are strong views in the Working Group on the implementing mechanism for the additional 30% percent reduction. Many do not wish to commit to the reduction at this time unless it is contingent upon a positive vote of a majority of the parties. Others, however, believe the evidence warrants committing to this reduction at this time.

## C. RELATIONSHIP BETWEEN INTERNATIONAL PROTOCOL AND DOMESTIC REGULATION

The overall objective of the protocol is to avoid or reduce health and environmental risks. Compliance with the international protocol necessarily results in domestic regulation. Yet there is no reason why the Nation's efforts to achieve these objectives should be limited to a regulatory approach.

The suggestion has been made that it is only fair for the government which imposes such regulatory burdens upon the people and the economy of the U.S. to consider policies which may ease the regulatory burdens, including, but not limited to, possibly rendering unnecessary imposition of regulations beyond those necessary to assure U.S. compliance with the international a fuel  $r = \frac{1}{1 - 1}$ 

Such a domestic, non-regulatory supplement to the international procol might, for example, contain elements intended to eliminate government barriers to, or facilitate, the development of: substitutes for covered chemicals, technology to mitigate or eliminate the adverse effects of chemical emissions upon stratospheric ozone, or medical advancements in the understanding concer and treatment of the problems caused by ozone depletion.

The recommendation has been made that the DPC direct the Working Group to consider and report its recommendations concerning such domestic non-regulatory alternatives. TABLE 2: SENSITIVITY ANALYSIS -- COMPARISON OF BENEFITS AND COSTS UNDER DIFFERENT ASSUMPTIONS

Step	Percent of cases in which benefits exceed costs	Percent of cases in which benefits approximately equal costs	Percent of cases in which benefits are less than costs	
(No Action) to (Freeze)	100%	08	0%	
(Freeze) to (Freeze 20%)	78%	3%	19%	
(Freeze + 20%) to (Freeze +	50%) 56%	19%	25%	

Assumptions: Same as Table 1.

May 21, 1987

President Ronald Reagan The White House 1600 Pennsylvania Avenue Washington, D.C. 20500

Dear Mr. President:

Carberrow

The depletion of stratospheric ozone by <u>halocarbon compounds</u> presents one of the most important environmental challenge of our time. The consequences of inaction would be unprecedented - millions of new cases of skin cancer, millions of dollars in damage every year to crops and materials, increasing air pollution, and a powerful stress on our forests and oceans.

Recognizing the singular nature of the threat, more than two dozen nations have been negotiating a protocol under the sponsorship of the United Nations Environment Programme to limit the emissions of halocarbons. E.P.A. Administrator Lee Thomas took an important leadership role in this process when he announced the U.S. position calling for a 95% phaseout of emissions with interim reductions of 20% and 50%. A large near term reduction of 50% is needed to provide the incentive for the development of substitute chemicals, which the industry says can be available in quantity in five years. The 95% phaseout is needed for two reasons. First, just to stabilize concentrations in the atmosphere at current values, an 85% reduction in emissions is required. Secondly, only a strong commitment by the industrialized nations to wean themselves from dependence upon these chemicals will create the credibility necessary for the rest of world to cooperate in the Vienna Convention. Increasing per capita consumption in the less developed countries is sure to offset reductions in the U.S., Japan, and Europe if the commitment to an eventual phaseout is absent.

Decisions are currently being made within the <u>Domestic Policy Council</u> as to the final U.S. position. An automatic interim 50% target and a commitment to the longterm phaseout are the critical elements of the U.S. position. The wisdom of that position was reaffirmed at a Senate hearing last week when scientists for the first time stated that halocarbons are the likely cause of the ozone hole over Antarctica. The existence of the hole underscores the urgent need to act. With this new evidence in hand, the Europeans and Japanese have been moving toward the U.S. position, so this is no time to compromise on these two critical elements. As leaders of the major environmental organizations in this country, we commend the strong leadership exercised by your E.P.A. on this issue, the most critical environmental issue of our time. Successful negotiation of a strong protocol to protect the ozone layer would make a distinguished and lasting landmark for your Presidency. We urge that you lend your personal support to the position developed by the E.P.A.

Respectfully,

John H. Adams Executive Director Natural Resources Defense Council

Peter A. Berle President National Audubon Society

Michael S. Clark President Environmental Policy Institute

Michael Fischer

Executive Director Sierra Club

George Frampton President The Wilderness Society

day D. Hain

Jay D) Hair Executive Vice President National Wildlife Federation

Frederic D. Krupp

Executive Director Environmental Defense Fund

Jack Lorenz () Executive Director Izaak Walton League of America

Paul C. Pritchard President National Parks & Conservation Assoc.

returi Wilson

Cynthia Wilson Executive Director Friends of the Earth

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ALLIANCE FOR RESPONSIBLE CFC POLICY 1901 N. FT. MYER DRIVE, SUITE 1204 ROSSLYN, VIRGINIA 22209 (703) 841-9363

May 19, 1987

The President The White House Washington, D.C. 20500

Dear Mr. President:

Cardenon

On behalf of the members of the Alliance for Responsible CFC Policy, I am writing to urge that the United States not support any reduction measures as part of the United Nations Environment Programme (UNEP) negotiations on a protocol to protect the ozone layer by restricting chlorofluorocarbons (CFCs).

Any reduction measures at this time are scientifically and environmentally unnecessary, and may place U.S. industries at a significant competitive disadvantage worldwide. Our industries will support, however, a freeze on the emissions of these compounds as part of the UNEP negotiations so long as the agreement incorporates a long-term management process for the assessment of scientific, economic and technological information as a basis for any additional control measures in the future.

An emissions freeze is an effective environmental protection step in the near-term, but it will also impose significant costs on the U.S. economy. Based on our analysis, the freeze will impose more than \$1 billion in costs on the U.S. economy from CFC price increases alone between 1988 and 2000. Near-term reduction measures will impose far greater costs on our industries, the impacts of which have not yet been properly evaluated by anyone in or out of government.

HD

Page Two

Mr. President

CFCs are relied upon by several critical industries including air conditioning and refrigeration, automobile, electronics, food processing and foam manufacturing. We have estimated direct employment related to CFC use is in excess of 715,000 jobs with the annual value of goods and services in the U.S of \$28 billion. (A representative list of Alliance members is attached.)

The industry has supported the negotiations of the protocol for protection of the ozone layer. An international agreement to freeze emissions accompanied by a long-term management and assessment process is a dramatic environmental protection step and one that will protect the competitiveness of U.S. industries worldwide.

We urge you to oppose U.S. support for any reduction measures as part of this international agreement at this time.

Sincerely,

ichurd Barnett

Richard Barnett Chairman

Enclosure

RB:sct



Abbott Laboratories Chicago, iL co Refrigeration Supply Lorp. ong Island, NY CR/Peerless Pacific Portland, OR ACR Supply Company, Inc. Durham, NC ACR Supply, Inc. Miami, FL A/C Supply, Inc. Harahan, LA Acoustical Spray Insulators, Inc. Allentown, PA Acto-Kleen Company, Inc. Pico Rivera, CA Aetna Supply Company, Inc. Bronz, NY A.I.A. Waterproofing & Insula tion, Inc. N. Miami, FL Aim Insulation Company, Inc. Bay City, MI Air Cold Supply, Inc. Los Angeles, CA Air Comfort Corporation Broadview, IL Air Conditioning Contractors of America Washington, DC Air Conditioning & Refrigera tion Institute Arlington, VA Air Conditioning & "efrigera tion Wholesalers "rfield Beach, FL **Conditioning Suppliers, Inc.** .thmond, VA RCO Refrigeration, Inc. Airflow Company Gaithersburg, MD Airtemp Corporation Edition, NJ Airtrol Supply, Inc. Corpus Christi, TX Air World Grand Prairie, TX Alco Controls St. Louis, MO All Air Conditioning Supplies, Inc St. Petersburg, FL Allen Equipment Company Houston, TX Allied Chemical Morristown, NJ Allied Protective Coating, Inc. Minneapolis, MN Allied Supply Company, Inc. Dayton, OH Alired's, Inc. Salt Lake City, UT Harry Alter Company Chicago, IL Amana Refrigeration Co. Amana, IA

merican Air Filter Company, -wille, KY

an Association of Meat JIOPS izabethtown, PA

MEMBER COMPANIES, ALLIANCE FOR RESPONSIBLE CFC POLICY

Borg-Warner Corporation

American Bakers Association Washington, DC Blue M. Electric Company Blue Island, IL Bon Air Service Company, Inc. Grand Prairie, TX American Convenience Products Inc. Milwaukee, WI A.E. Borden Company, Inc. Woburn, MA American Frozen Food Institute McLean, VA

American Meat Institute Arlington, VA

Center Personnel Chicago, IL

Company Atlanta, GA

Waukesha, WI

Service, Inc. Rutler, WI

Inc.

Wayne, NJ

Orlando, FL

Puerto Rico

Phoenix, AZ

Baton Rouge, LA

Amoco Foam Products

Anco Insulations, Inc.

Anchor Foam Systems, Inc.

Anderson Bros. Refrigeration

Anscott Chemical Industries.

Applied Roofing Technology, Inc.

ARCO Chemical Company Philadelphia, PA

**Arizona Refrigeration Supplies** 

Arjay Equipment Corporation Winston-Salem, NC

Ashland Chemical Company Columbus, OH

Associated Supply Company,

Association of Home Appliance

Association of Home Applicance

Chicago, IL Authorized Supply Corporation Los Angeles, CA

ARCO Supply, Inc.

Arrow-Risco, Inc.

Los Angeles, CA

New York, NY

Sacramento, CA

Manufacturers Washington, D.C.

Manufacturers

Baker Bros., Inc. Jacksonville, FL

Parisippany, NJ

Baton Rouge, LA

Hershey, PA

Las Vegas, NV

Basic Industries, Inc.

Beltway Heating & Air Conditioning Forestville, MD

B&H Pizza Company, Inc.

**B&H Urethane Systems, Inc.** 

Bally Case & Cooler, Inc. Bally, PA

Bard Manufacturing Company Bryan, OH

**BASF Wyandome Corporation** 

Bells Supply Company, Inc. Wilmington, DE

ASHRAE

Inc.

American Petroleum Institute Washington, DC

American Society for Hospital

Decatur, IL Borg Warner - York Division York, PA Bramec Corporation Sioux City, IA Bristol Compressors Bristol, VA W.A. Brown & Son, Inc. Salisbury, NC Builders World Cassopolis, MI **Building Owners and Manufac**turers Association International Washington, DC Burke Engineering Company South El Monte, CA Burton-Dixie Corporation Blacksburg, SC Burton Plating Company Los Angeles, CA

**California Cooling Supply** Company El Cajon, CA Capitol Refrigeration Company, Inc. Albany, NY Cassady Supply Company, Inc. Columbus, OH Celotex Corporation Tampa, FL Cetylite Industries, Inc. Pennsauken, NI Chase Supply Company Alsip, IL **Chem Central Corporation** Chicago, IL **Chemical Manufacturers** Association Washington, DC Chemical Specialties Manufac-turers Association Washington, DC Chemtech Roofing & Insulation Systems, Inc. Mt. Airy, NC Circle Arrow Urethane Systems, Inc. San Bernardino, CA Clean Way Industrias, Inc. Keene, NH Climate Engineering, Inc. Denver, CO Climatrol Sales Co. Edison, NJ Clinton Chemical Company Leonard, MI Coating Specialists San Antonio, TX Commercial Distributing Co. Salt Lake City, UT Commercial Refrigerator Manuafacturers Association Washington, DC Cook Paint and Varnish Co. Kansas City, MO

Cooperative Food Distributors of America Washington, DC Copeland Corporation Sidney, OH The Cornelius Company Anoka, MN County Insulation Company New Castle, DE Creative Urethanes, Inc. Purceliville, VA Crescent Manufacturing Company Seattle, WA Crest Systems, Inc. Phoenix, AZ The Crown Refrigeration Supply Company Baltimore, MD The Crump Company Englewood, CA Cyclops Corporation Pittsburgh, PA

Dairy & Food Industry Supply Association Washington, DC **Davidson Rubber Division** Dover, NH Davidson Supply Compa-San Francisco, CA Day Supply Company Hartford, CT DeHart's Form Insulation Brademon, FL Del Monte Corporation Washington, DC Dennis Supply Company Sioux City, IA Deshier Mechanical Contractors, Inc. Hendersonville, TN Discount Insulation & Roofing Middleville, NY **Distributors Incorporated of** Colorado Denver, CO Dolco Packaging Corporation Sherman Oaks, CA Douglas Barrels, Inc. Charleston, WV Dow Chemical Company Midland, Mi Draper Canning Company Milton, DE H.C. Duke & Son, Inc. East Moline, Il E.V. Dunber Company Arlenta, GA Duncan Supply Company, Inc. Indianapolis, IN Dunham-Bush, Inc. West Hartford, CT E.I. duPont de Nemours & Company Wilmington, DC

### E

Eaton Corporation Athens, AL **58CO Manufacturing Company** Columbus, Ohio S. Eisenberg & Company Bridgeview, IL

The Electromotive Corporation Dallas, TX Elliot Company of Indianapolis dianapolis, IN ott-Williams Company, Inc. ilanapolis, IN merson Electric Company Louis, MO pire Foam Corporation Empire Freezers of Syracuse, Inc. Syracuse, NY Engineering and Refrigeration, Inc. Jersey City, NJ En-Tech, Inc. Louisville, KY Essex (Racon) Inc. Wichita, KS

F.C.I. Sprayfoam Ltd. Richmond, B.C., CANADA Falcon Safety Products, Inc. Mountainside, NJ Fedders Corporation Edison, NJ Fixturcraft, Inc. Nashville, TN Flexible Polyurethane Foam Manufacturers Association Southfield, MI Flex-O-Lators, Inc. High Point, NC Florida Containers, Inc. Sebring, FL Foamco Systems International Louisville, CO Foam Insulation Contractors Kansas City, KS Damseal, Inc. Dxford, MI Foam Systems Company Riverside, CA Food Marketing Institute Washington, DC **Follett** Corporation Easton, PA Forno Products, Inc. Akron, OH Forma Scientific Marietta, OH Forsyth Urefoam Winston-Salem, NC Fox Appliance Parts, Inc. Augusta, GA Fox Service Company, Inc. Austin, TX Free-Flow Packaging Corporation Redwood City, CA G G&O Thermal Supply Company Chicago, IL

**Gabriel Manufacturing Com-**Pany, Inc. Stony Point, NY GAF Corporation Galileo Electro Optics Corporation Sturbridge, MA Ganser, Inc. Bozeman, MT "Red" Gaskins Company Lake City, SC

G.S.H. Fabricating & Packaging. Inc Swedesboro, NJ Gebauer Chemical Company Cleveland, OH Geidbach Refrigerator Company, Inc. Sparata, NJ General Coatings, Inc. St. Paul, MN Gene Conreaux & Company, Inc. Indianapolis, IN **General Electric Company** Louisville, KY General Fiberglass Supply, Inc. West Allis, WI General Foods Corporation White Plains, NY General Heating & Cooling N. Kansas City, MO General Radio & Electronic Company Wilkes-Barre, PA **General Refrigeration Supply** Company, Inc. Lafayette, IN Genessee Refrigeration Supplies, Inc. Rochester, NY Gilbert Foam Insulation Company, Inc. Jersey Shore, PA The Gilman Corporation Gilman, CT **Goetti Air Conditioning, Inc.** Phoenix, AZ 8.F. Goodrich Chemical Group Cieveland, OH The Goodyear Tire & Rubber Company Lagrange, IN The Goodyear Tire & Rubber Company, Luckey Plant Luckey, OH W.L. Gore & Associates, Inc. Newark, DE Gould, Inc. Chicago, IL Great Lakes Systems, Inc. lenison, MI Greenberg Supply Company. inc. Wilmington, DE Grocery Manufacturers of America Washington, DC GTE Products Corporation Woburn, MA Gulf & Western Manufacturing Company Danville, IL Gusmer Corporation Lakewood, NJ н Hackney Brothers Boov Company Wilson, NC **Halocarbon Products** Corporation Hackensack, NJ

Haisey Supply Company, Inc. Brooklyn, NY

Halstead & Mitchell

Scottsboro, AL

John F. Harkins Company, Inc. Landsdowne, PA Harris Environmental Systems, Inc. Andover, MA Harris-Teeter Supermarkets Charlotte, NC Hart & Cooley Holland, MI Sid Harvey Industries, Inc. Garden City, NY Health Industry Manufacturers Association Washington, DC Heating & Cooling Wholesalers, Inc. Grand Rapids, MI Heying Foods, Inc. West Union, IA Highside Chemicals, Inc. Gladstone, NI Hill Refrigeration Trenton, NJ Hinshaw Supply Company San Francisco, CA Hobart Corporation Troy, OH Honeyweil, Inc. Minneapolis, MN Hormel, Inc. Austin, MN Hosier Refrigeration Supply. Inc. Des Moines, IA Howard Refrigeration Company, Inc. Philadelphia, PA Hussmann Refrigerater Company, Inc. Bridgeton, MD ICI Americas, Inc. Wilmington, DE Igloo Corporation Houston, TX Impro, Inc. **Deer Park, TX** Industrial Coatings, Inc. Rogers, MN Industrial Paper Distributors Long Beach, CA Insaco Inc. Quakertown, PA Insco Distributing San Antonio, TX Insoport Industries, Inc. Williamsport, PA Insta-Foam Products, inc. Joliet, IL Institute of Heating & Air Conditioning Industries Los Angeles, CA Insuldeck Corporation Bath, PA International Association of Refrigerated Warehouses Washington, DC International Cold Storage Company, Inc. Andover, KS International Mobile Air Conditioning Association Landsdale, PA

Hanover Distributing Company,

Inc

Charlotte, NC

ITT Continental Baking Company Charlottesville, VA ITT Telecommunications Corinth, MS

Jamison Door Company Hagerstown, MD Johnson Controls, Inc. Oak Brook, IL George L. Johnston Company Detroit, MI Jones Supply, Inc. Kennewick, WA Charles D. Jones Company Denver, CO Ion Pierce, Inc. Fort Worth, TX Jordan Supply Company, Inc. Buffalo, NY

K Kaiser Aluminum & Chemical Corporation Oakland, CA Kern Thermal Equipment Limited Rezdale, Ontario, CANADA **Keyes** Fibre Stamford, CT Keyes, Inc. Grand Rapids, MI King Radio Corporation Olathe, KS King Shrimp Company, Inc. Brunswick, GA King Weyler Equipment: \*. Company, Inc. Fort Wayne, IN W.B. Knox & Associates, Inc. Lithonia, GA Koldaire Supply Company Fort Worth, TX Kraco-Dyplast, Inc. Miami, FL Kuss Corporation Findlay, OH Kysor/Warren-Sherer Convers, GA Lamb-Weston, Inc. Portland, OR F.H. Langsenkamp Company Indianapolis, IN Larkin Coils, Inc. Atlanta, GA The Larsen Company Green Bay, Wi Larson Supply Company, Inc. Allentown, PA Lear Siegler, Inc./Transport Dynamics Division Santa Ana, CA Lear Siegler, Inc., Mammoth Division Minneapolis, MN Lennox Industries, Inc. Carrollton, TX Lewis Corporation Oxford, CT Liniflow Manufacturing Company Erie, PA Lyon Brokerage Company, Inc. Minneapolis, MN

#### M

Majestic Weaving Company, Inc Cornwall, NY R.D. Marshall & Company, Inc. Albany, NY Martin Insulation, Inc. Ephrata, PA Marvco Market Developers Pompton Lakes, NJ Master-Bilt Products New Albany, MS McCombs Supply Company Denver, CO McCoy Electronics Company Mt. Holly Springs, PA McGee Industries, Inc. Aston, PA McKesson Chemical Company San Francisco, CA McQuay Group, McQuay Perfex Inc. Minneapolis, MN Mechanical Contractors Association of America Chevy Chase, MD Mechanical Maintenance Company E. Hartford, CT Mechanical Supply Company St. Louis, MO Meier Supply Company, Inc. Binghamton, NY Melco Refrigeration & Air Conditioning Ridgefield, NJ Metal Building Maintenance Company Walkerton, IN Michiana Urethanes, Inc. Sturgis, MI Mid-City Supply Company, Inc. Eikhart, IN Mid-State Industrial Insulation. Inc Oildale, CA

**Milk Industry Foundation** Washington, DC Miller-Stephenson Chemical Company, Inc. Danbury, CT Mobay Chemical Corporation Pittsburgh, PA Morristown Foam Company Morristown, TN Motor Vehicle Manufacturers Association Washington, DC Mueiler Brass Company Port Huron, MI Murray Corporation Cockeysville, MD

#### N

Nabisco East Hanover, NJ NAHB Research Foundation. Inc. Rockville, MD National American Wholesale **Grocers** Association New York, NY National Association of Convenience Stores Falls Church, VA

National Association of Homebuilders Washington, DC National Association of Retail Grocers Washington, DC National Commercial Refrigera-tion Sales Association Philadelphia, PA National Fisheries Institute Washington, DC National Meat Association Washington, DC NI-TEC. Inc. Niles, IL Nohle Refrigeration Supplies Rochester, NY Norel Paper Corporation Bogota, NI Norfield, Division of Fallek Chemical Company Danbury, CT North American Heating & Air Conditioning Wholesalers Association Columbus, OH Northern Packaging Products Company Cleveland, OH Norton Company Granville, NY William F. Nye, Inc. New Bedford, MA

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Oeverage-Air Spartanburg, SC Olin Corporation Stamford. CT Orb Industries, Inc. Upland, PA "Orchard Hill Farms, Inc. Red Hook, NY Ore-Ida Foods. Inc. Boise, ID Otisca Industries, Ltd. Svracuse, NY Lilly Division. Owens-Illinois Toledo, OH

Paramount Electrical Supply Company, Inc. New York, NY Parker Hannifin Corporation Lyons, NY Pasky & Company, Inc. Farmington Hills, MI Patterson Frozen Foods, Inc. Patterson, CA Pennwalt Corporation Philadelphia, PA Pensacola Refrigeration Supply. Inc. Pensacola, FL Perlev-Halladay Associates, Inc. Malvern, PA Pet Incorporated St. Louis, MO The Pillsbury Company LeSueur, MN Pioneer Supply Company **Burlington**, IA Plumb Supply Company Des Moines, 14

Polycold Systems, Inc. San Rafael, CA Precision Valve Corporation Yonkers, NY Pride Solvents & Chemical Company, Inc. West Babylon, NY Pritchett-Stephen Refrigeration Company Ft. Worth, TX Proctor & Associates Redmond, WA

# Q

The Quaker Oats Company Chicago, IL R Rawn Company, Inc. Spooner, WI **Reeves Refrigeration & Heating** Supply, Inc. Minot, ND Refrigerants Incorporated Chicago, IL Refrigeration & Electric Supply Company Little Rock, AR Refrigeration Engineering, Inc. Grand Rapids, MI Refrigeration Research, Inc. Brighton, MI Refrigeration Sales Company, Inc. Long Island City, NY **Refrigeration Supplies** Corporation Cleveland, OH Refrigeration Supply Company Richmond, VA Reichhold Chemicals Inc. White Plains, NY Remedial Insulation Barriers Company, Inc. Buffalo, NY R&H Supply Company Montgomery, AL **Republic Refrigeration** Wholesalers Davenport, IA Resco, Inc. Harrisburg, PA 8.P. Rhinefort Company Fort Worth, TX Riker Laboratories. Inc. Northridge, CA RIP. Inc. Fort Worth, TX

Ritchie Engineering Company, Inc. Minneapolis, MN Rmax, Inc. Dallas, TX R&R Supply Company. Inc. Orlando, FL R.L. Hartley Corporation Indianapolis, IN Robertshaw Controls Company Richmond, VA H.H. Robertson Company Pittsburgh, PA **Robertson Electric Company** Charlottesville, VA **Robinair Manufacturing** Corporation Montpelier. OH

Roche & Hull, Inc. Baltimore, MD Rogers Refrigeration Company, Inc. Marlow Heights, MD Rogers Supply Company Champaign, IL W.A. Roosevelt Company La Crosse, WI **Rovanco Corporation** Ioliet. IL Sanford, Semchak & Speights, Inc. Bakersfield, CA Sawyer Fruit & Vegetable Bear Lake, MI Scatena York Company San Francisco, CA Schroeder Refrigeration Corporation Oakland, CA Sealed Unit Parts Company, Inc. Allenwood, NJ Service Parts Company Melrose Park, IL Service Supply Company Phoenix, AZ Service Supply, Inc. Meridian, MS Service Supply of Victoria, Inc. Victoria, TX William B. Severn, MC. Philadelphia, PA Sheet Metal & Air Conditioning Contractors National Association Houston, TX Sheet Metal & Air Conditioning Contractors National Association Vienna, VA Shelter Insulation, Inc. San Antonio, TX The Silna Corporation Moonachie, NJ The Joseph Simons Company Hartford, CT J.R. Simplot Company Caldwell, ID The Singer Company Carteret, NJ Single Service Institute Washington, D.C. SIC Corporation Elyria, OH Mrs. Smith's Frozen Food Company Pottstown, PA S& S Nonlimited, Inc. Hopatcong, NJ Society of the Plastics Industry New York, NY South Central Company, Inc. Columbus, IN South Texas Urethane, Inc. Edinburg, TX Southern Michigan Cold Storage Company Benton Harbor, MI Southwest Manufacturing Aurora, MO Soray, Inc. Bolton, MA

Sprayfoam Southwest, Inc. Tempe, AZ Spencer Insulation New Albany, PA Sporlan Valve Company 1. Louis, MO Juare D Company, SunDial Plant Mesquite, TX landard Refrigeration Company Meirose Park, IL Stayton Canning Company Cooperative Stayton, OR Stoelting, Inc. Kiel, WI Stokely-Van Camp, Inc. Indianapolis, IN **Stouffer Foods Corporation** Solon, OH Sundstrand Heat Transfer, Inc. Dowagiac, MI Superior Supply Company N. Kansas City, MO Superior Supply Company, Inc. Wichita, KS Superior Valve Company Washington, PA Supply Distributors Corporation Mediord, MA Sweetheart Plastics, Inc. Wilmington, MA

# T

**Taylor Freezer** Rockton, IL Taylor Industries, Inc. Des Moines, IA Tech Spray, Inc. Amarillo, TX eck-Service, Inc. iidell, LA **Tecumseh Products Company** Tecumseh, MI Tekni-Plex, Inc. Somerville, NJ **Temple Division of Temple-**Eastex, Inc. **Diboll, TX** Tenney Engineering, Inc. Union, NJ **Termicold** Corporation Portland, OR **Texaco Chemical Company** Bellair, TX **Tesco Distributors, Inc.** Irvington, NJ Texas Instruments Dallas, TX Texas instruments Inc. Attleboro, MA Texas Urethane, Inc. Austin, TX Textile Chemical Company, Inc. Reading, PA **Thermal Control Industries** Ellerbe, NC Thermal Products, Inc. Cerritos, CA Thermal Supply, Inc. Seattle, WA Thermo-King Corporation **Bloomington**, MN

Tobin Refrigeration Company Deriver, CO Torin Corporaton Torrington, CT The Trane Company Arlington, VA The Trane Company LaCrosse, WI Treasure Isle, Inc. Tampa, FL Truck Trailer Manufacturers' Association Washington, DC Twin City Supply Company Providence, RI Tyler Refrigeration Corporation Niles, MI Tyler Refrigeration Corporation Niles, MI

U.C. Industries Parsippany, NJ U.C.T., Inc. Louisville, KY Ugine Kuhlmann of America, Inc. Paramus, NJ Union Carbide Corporation New York, NY Universal Applicators, Inc. Hugo, MN United Refrigeration, Inc. Philadelphia, PA The Upjohn Company Kalamazoo, MI Urethane Foam Contractors Association Dayton, OH Urethane Chemical Company Carrollton, TX U.S. Urethane, Inc. Bernardsville, NJ Valcour Imprinted Papers, Inc. Glen Falls, NY Vanderbilt Export Corporation Norwalk, CT Van-Wall Urethane Contractors Inc. Mansfield, TX Van Waters & Rogers Division of Univer San Mateo, CA Vertecs Corporation Kirkland, WA Virginia Chemical, Inc. Dallas, TX Vollrath Refrigeration, Inc. River Falls, WI Voitek, Inc. Lawrence, MA Vulcan Materials Company Sirmingham, AL

#### W

Wahm Springs Enterprises, Inc. Ketchum, ID Warwick Operating Corporation New York, NY Wayne Dennis Supply Company Des Moines, IA Wei T'O Associates, Inc. Matteson, IL Westfield Refrigeration & Air Conditioning Company Westfield, NJ Westinghouse Electric Corporation Pittsburgh, PA Westinghouse Electric Company Staunton, VA The Whalen Company Easton, MD White Consolidated Industries, Inc. Cleveland, OH White & Shaugher, Inc. Paterson, NJ The Williamson Company Cincinnati, OH William Wurzbach Company, Inc. Oakland, CA Wilson Refrigeration & Electric, Inc. Anderson, SC F.E. Winstel Company Cincinnati, OH Witco Chemical Corporation New Castle, DE Woodward Governor Company Rockford, IL **Ralph Wright Refrigeration** Fort Worth, TX

Young Supply Company Detroit, MI



Alliance for Responsible CFC Policy 1901 N. Ft. Myer Drive, Suite 1204 Rosslyn, Virginia 22209 703/841-9363

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# ALLIANCE FOR RESPONSIBLE CFC POLICY 1901 N. FT. MYER DRIVE, SUITE 1204 ROSSLYN, VIRGINIA 22209 (703) 841-9363

May 18, 1987

The Honorable George P. Shultz Secretary Department of State Main State Department Bldg. 2201 C Street, N.W. Washington, D.C. 20520

Dear Secretary Shultz:

The Alliance for Responsible CFC Policy appreciates the opportunity to provide further input concerning the ongoing negotiations to obtain a protocol to the Vienna Convention for Protection of the Ozone Layer. In view of the recently completed Ad Hoc Working Group meeting, we felt it would be useful to reiterate the Alliance's position concerning the international agreement.

The most critical aspects in the United Nations Environment Programme (UNEP) negotiations are the broad coverage of chemical compounds, country participation and the establishment of a long-term management process for future decision making. Efforts to focus on attainment of reduction steps in this agreement are scientifically and environmentally unnecessary, economically unwise, and, we believe, imprudent from a negotiation standpoint.

We believe the current use or emission of CFCs for the near future does not present a threat to human health or the environment. The Alliance encourages that steps be taken to curtail additional growth in the production capacity of these compounds until such time as scientific analysis provides better information. Reduction steps, however, should be considered only as part of the future assessment process if deemed to be necessary at that time.

The Alliance has stated, however, that it will not oppose a freeze on the emission of the fully-halogenated compounds so long as it is accompanied by a periodic assessment of the scientific, economic and technological issues as a basis for future steps. An agreement to freeze the emissions of these compounds should be considered an effective environmental protection step. It should also be recognized as one that will impose significant costs on the U.S. economy. Page Two

. . .

According to a recently completed analysis of the CFC using and producing industries, a freeze on CFCs 11, 12 and 113 could lead to price increases of 300-400% by the mid-1990's. Costs to the economy would be approximately \$1 billion during the period 1988-2000. Annual costs would exceed \$180 million in the mid-1990's.

A freeze will reduce aggregate projected CFC use by approximately 1.1 million metric tons by the year 2000, or the equivalent of about four years of current U.S. CFC production. This curtailment of CFC use over the next decade will create a significant market incentive for users and producers to search for substitute compounds and other environmentally effective processes.

Some EPA officials have acknowledged that a freeze will "eventually" spur the development of substitute compounds. The above economic analysis supports our assertion, however, that this development work will proceed rapidly.

The U.S. industry will have a more definitive answer concerning the availability of substitute compounds in 3-4 years. In our view, no agreement on a reduction step should be signed, assuming a freeze is achievable, until after the next scientifi'c assessment is completed.

To our knowledge, neither EPA nor anyone else has completed an economic or environmental impact analysis of the reduction steps currently being considered at UNEP. Although, we do understand that EPA currently has a study in progress.

Furthermore, an agreement to reduce CFC use and emissions prior to the known availability of acceptable substitute compounds may actually prove counterproductive. A reduction timetable that does not allow user industries the time to wait for development of appropriate long-term CFC sustitutes may leave no other choice but to begin planning based on the currently available, but less desirable substances. Once such a commitment is made on the part of the user industries the desire for both users and producers to pursue development of new compounds will be greatly diminished.

These concerns greatly necessitate the need for a long-term management process for proper decision making.

Page Three

Finally, if we continue to seek reduction steps in the negotiation process without a proper focus on the trade and developing-nations issues, we may lose the opportunity to obtain a fair and reasonable agreement that protects both the environment and U.S. competitiveness in the world market. In our view the U.S. has placed too much emphasis on reduction steps rather than on a well-rounded agreement in the UNEP negotiations.

We urge you to consider these points as you give consideration to the U.S. position and hope to meet with you and your staff soon to discuss our economic analysis.

Sincerely,

(5)

Richard Barnett Chairman

Enclosures

RB:sct

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# IDENTICAL LETTER SENT TO:

The Honorable George Bush Vice President of the United States Old Executive Office Building 17th Street & Pennsylvania Avenue, N.W. Washington, D.C. 20501

The Honorable Edwin Meese III Attorney General Department of Justice Main Justice Building 10th and Constitution Avenue, N.W. Washington, D.C. 20530

The Honorable Clayton Yeutter U.S. Trade Representative 600 17th Street, N.W. Room 209 Washington, D.C. 20506

The Honorable James C. Miller III Director Office of Management and Budget Old Executive Office Building 17th Street & Pennsylvania Avenue, N.W. Washington, D.C. 20503

The Honorable Lee Thomas Administrator Environmental Protection Agency 401 M Street, SW Suite 1200, West Tower Washington, D.C. 20460

The Honorable George P. Shultz Secretary Department of State Main State Department Bldg. 2201 C Street, N.W. Washington, D.C. 20520

The Honorable Caspar W. Weinberger Secretary Department of Defense The Pentagon Washington, D.C. 20301

# Page Two

The Honorable Malcolm Baldridge Secretary Department of Commerce Herbert C. Hoover Bldg. 14th Street and Constitution Ave., N.W. Washington, D.C. 20230

The Honorable Elizabeth Hanford Dole Secretary Department of Transportation Nassif Building 400 Seventh Street, S.W. Washington, D.C. 20590

The Honorable Donald P. Hodel Secretary Department of the Interior Interior Building 18th & C Street, N.W. Washington, D.C. 20240

The Honorable John S. Herrington Secretary Department of Energy Forrestal Building 1000 Independence Avenue, S.W. Washington, D.C. 20585

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