Environment Canada Environnement Canada

Consultations on the Proposed Action Plan For Perfluorocarboxylic Acids and Precursors

Environment Canada and Health Canada

Report of Consultation Meeting
Ottawa, Ontario, Canada
February 6 and 7, 2006

Canada

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INTRODUCTION

In 2004, the New Substances Program of Environment Canada and Health Canada assessed four new substances which are considered sources of perfluorinated carboxylic acids (PFCAs).

Following the assessments of these four substances, the Minister of the Environment imposed a temporary prohibition using the New Substances provisions of the *Canadian Environmental Protection Act, 1999* (CEPA 1999). Prohibitions under the New Substances provisions of CEPA 1999 expire after two years unless the Ministers propose a regulation to control the substances. Substances similar to these four new substances are present on the Domestic Substances List (DSL) and in Canadian commerce.

Health Canada and Environment Canada are proposing an Action Plan on the assessment and management of PFCAs and precursors.

In order to obtain advice and comments from stakeholders on the proposed Action Plan, Environment Canada hosted a stakeholder consultation meeting on February 6 and 7, 2006, in Ottawa, Ontario. Participants included representatives of industrial producers and users, environmental non-governmental organizations (ENGOs), Canadian federal government, academia, and representatives from other national governments. Input from these consultations and written submissions will be considered in the development of a finalized approach.

The facilitated consultation included presentations on the proposed Action Plan, including timelines and objectives, and group and plenary discussions to identify areas of concern and suggestions for improvement.

This report provides an overview of the comments and common themes, suggestions and recommendations that emerged at the consultation session.

Appendices to this report include the consultation agenda (Appendix A) and a list of participants (Appendix B).

Copies of the presentations are available. Requests can be sent to Nancy Seymour of Environment Canada at **Nancy.Seymour@ec.gc.ca.**

WELCOME/OBJECTIVES

The Director General of Pollution Prevention, Environment Canada, Anne O'Toole, welcomed participants, described the structure of the 1 and 1/2 day meeting and reviewed the objectives.

1. There are growing concerns about perfluorinated carboxylic acids (PFCAs) and substances that can be sources of PFCAs.
2. Environment Canada and Health Canada are proposing an Action Plan to address PFCAs and precursors.
3. The first afternoon will provide the scientific context behind the Action Plan, while the second day will be used to present and discuss the Action Plan itself.
4. This is a consultation meeting, the main purpose being to obtain feedback from stakeholders on the proposals. Environment Canada and Health Canada are here to explain the proposals, and to listen and take note of feedback and comments.
5. There will be more consultation steps and different timelines for the different elements of the proposed Action Plan.
6. An attempt has been made to obtain representation of all stakeholders affected and concerned with PFCAs and precursors, including industry, industry associations, academia, governments, environmental and health groups.
7. Consensus is desirable, however it is not essential. It is hoped that a fruitful dialogue will be achieved on the assessment and management of PFCAs and their precursors.

PART 1 THE SCIENTIFIC CONTEXT

Bernard Madé, Director of the New Substances Division, Environment Canada introduced the ½ day session on the scientific context behind the proposed Action Plan.

- There is an increasing body of evidence speaking to the persistence, hazard, bioaccumulation and measurement of PFCAs in the environment.
- Beginning in 2004, assessment conclusions were taken on four new fluorotelomer based substances. This resulted in temporary prohibitions being imposed on these substances, and the development of a proposed Action Plan to address these four substances as well as existing substances which are precursors to long chain PFCAs.
- The purpose of the next two presentations is to introduce terminology and concepts which will help clarify the Action Plan and review the current science which highlights why long chain PFCAs are of interest to Health Canada and Environment Canada. The third presentation outlines the process used to obtain comments on the new substances assessment reports from external reviewers, offers a sense of the comments received to date, and outlines the process to obtain current scientific information, which is expanding rapidly.

PFCAs and Precursors: Simplified Terminology/Sources and Fate

Environment Canada Representative Greg Hammond, (Head, New Chemicals Evaluation Unit) provided participants with an overview of terminology associated with PFCAs and precursor substances, the sources of precursor substances and their environmental fate. Participants then had the opportunity to ask questions of clarification.

Presentation Summary

This presentation defined PFCAs, fluorotelomer intermediates and indicated how they are used to build more complex fluorotelomer based substances. It was indicated that residual unreacted intermediates can be left in commercial fluorotelomer based substances used in applications such as grease/water repellents for textiles, leather and paper, and as components of paints and coatings.

It was indicated that this Action Plan is not addressing fluoropolymers (e.g. polytetrafluoroethylene) and that perfluorooctanoic acid (PFOA or C8) is not the focus of the proposed Action Plan as it is presently subject to a separate assessment under CEPA 1999.

A simplified view was presented on how the environment is exposed to residual fluorotelomer intermediates and how these transform to PFCAs. An outline was presented on the liberation of fluorotelomer intermediates from the degradation of fluorotelomer based substances. A list of planned research was presented, which will reduce uncertainties respecting this source of PFCA precursors.

Question and Comment Session

Chemically, there is no distinction between residual fluorotelomer alcohols (FTOHs) and those formed by hydrolysis of the fluorotelomer based substances. Some preliminary hydrolysis studies were conducted on fluorotelomer based substances. However, it was difficult to draw conclusions from the one study reviewed by Environment Canada as the presence of FTOHs could not be attributed to the presence of residuals or due to their formation through hydrolysis reactions.

It was clarified that there are no data at this time directly showing fluorotelomer based substances degrade to liberate fluorotelomer intermediates; however, the hydrolysis characteristics of ester bonds is well understood. There are also a number of studies being planned to investigate the degradation of fluorotelomer based substances and the liberation of fluorotelomer intermediates.

The conversion of fluorotelomer intermediates is not theoretical. Evidence of these conversions is available showing biodegradation and atmospheric oxidation pathways.

Fluorotelomer intermediates are manufactured and processed at facilities which can represent point sources to the environment; however, the bulk of the intermediates are incorporated into substances which are applied to consumer products which are broadly distributed. The presence of fluorotelomer intermediates was originally considered by Environment Canada based on information from notifiers. The University of Toronto has since authored a paper currently posted on the Environmental Science and Technology's ASAP journal website which documents the presence of fluorotelomer intermediates in several consumer products.

In discussions with one company, Environment Canada has been told that the level of residual fluorotelomer intermediates can be reduced; however, discussions on elimination have not taken place.

Environmental Fate of Fluorotelomer Based Substances

Environment Canada Representative Derek Muir, (Project Chief, Aquatic Ecosystem Protection Research Division) presented an overview of scientific findings pertaining to the conversion of FTOHs to PFCAs, and PFCA persistence, bioaccumulation, toxicology and trends in the environment. Participants then had the opportunity to ask questions of clarification.

Presentation Summary

This presentation reported on the scientific evidence of atmospheric degradation of FTOHs to PFCAs and measurements in air and precipitation. The biodegradation of FTOHs was reported, and possible fate pathways for fluorotelomer based substances were presented.

The effect of fluorinated carbon chain length on bioaccumulation was presented, as was evidence of bioaccumulation and biomagnification of PFCAs in food webs.

The toxicology of PFCAs to mammals and aquatic species was presented, as were the geographical and temporal trends of PFCAs in the environment.

Question and Comment Session

It was clarified that the word Teflon is a trade name, and is not being used as a generic term for non stick or stain resistant materials.

In modeling some behaviour of the notified substances, the CATABOL model was used, which incorporates a mechanism for the oxidation of FTOH to PFCAs (Dimitrov *et al*, 2004).

In relation to discussion on atmospheric presence and behaviour, the measurements cited are above the limit of quantifications. Fluorotelomer alcohols have been measured in England as well as in North America. While the global model for degradation and transport of FTOHs is based on concentrations higher than actual PFOA emissions, the intent is to show the distribution, not exact amounts. The degree of conversion of fluorotelomer alcohols to PFCAs is dependent upon NOx levels. The presence of FTOHs in the upper atmosphere is not expected as the troposphere depletes the FTOHs in tens of days.

The presence of PFCAs in fish was measured on a whole fish basis as biomagnification studies look at predator/prey relationships. The shorter PFCAs, C5 and C6 did not accumulate in fish, and may have been emitted via the gills.

It was noted that PFCAs accumulate in the blood and liver unlike traditional persistent organic pollutants (POPs) such as polychlorinated biphenyls (PCBs), which tend to accumulate in lipids. This is consistent with observations in dolphins, which show partitioning to liver, kidney and blood, and in polar bears, where the highest concentrations are in liver. Surprise was expressed at the high concentrations observed in wildlife, which are similar to the measured values of pentachlorophenol.

The indication that C14 may not be as bioaccumulative as other (shorter) PFCAs is the result of laboratory studies, although evidence is limited. It could be a function of the large molecular size.

As a point of clarification, it was indicated that branched PFCAs are formed when utilizing the electrochemical fluorination process. The absence of branched C9 in polar bear liver suggests it originated from a telomer source, which only produces linear chains. It was expressed that some PFCAs may have an electrochemical fluorination source, and that there are fluorotelomer substances other than the alcohols, such as fluorotelomer olefins.

While the Arctic data is significant and helps in the study of fate and transport due to limited point sources, it does not suggest that southern latitudes are not implicated. In discussing the Arctic monitoring data, it is speculated that higher concentrations of C9 in the Western Arctic compared to those of the Eastern Arctic could be attributed to Asian sources.

In comments expressed on mammalian toxicity data, it was indicated there are no data showing effects in occupationally exposed workers. An alternative view was expressed that there is such evidence, and it is found in the United States Environmental Protection Agency (US EPA) administrative record, number AR 226.

The majority of the US EPA's PFOA Risk Assessment Science Advisory Board has suggested that PFOA cancer data are consistent with the US EPA guidelines descriptor 'likely to be carcinogenic to humans'. It was indicated this was not a unanimous view, and a few Science Advisory Board members (3 of 16) expressed the opinion that it would be more appropriate it be labelled as "suggestive" of carcinogenicity. It was speculated that the German authorities might conclude the data is "suggestive" of carcinogenicity.

It was noted that PFOA is found in fetal cord blood and there are measured values in offspring which are four times higher than the values measured in the mothers who are occupationally exposed.

It appears PFOA alone has been the focus of hazard studies and there should be systematic scientific study on other PFCAs. In addition, PFOA and perfluorooctane sulphonate (PFOS) levels in human blood are correlated and may have similar modes of action. There should be an assessment of cumulative effects.

While there are no studies on the toxicity of metabolites/precursors in mammals, it was stated the toxicity of the fluorotelomer aldehydes, an intermediate between FTOHs and PFCAs is 10,000 times more toxic to *Daphnia magna* than the C10 PFCA.

When asked if there are data to discard C4 as a substance of concern, it was indicated there are data available showing that C5 and C6 are cleared rapidly compared to longer chain PFCAs.

Because the emissions data presented is solely on PFOA, and is declining, this may give a false sense of security as the precursor substances are not accounted for. While there is also a drop in PFOS production beginning in 2001, it could correspond to an increase in fluorotelomer based substance production, which could be used as replacements for the PFOS containing materials.

It was noted that there was a decrease in PFOS concentrations in ringed seal following its withdrawal from the market in 2000. It would be difficult to explain this rapid decrease unless atmospheric transport was of significance.

It will be of benefit to see what effect the Action Plan will have on actual environmental levels.

External Review and Science Update

Environment Canada Representative Mark Lewis, (Evaluation Specialist, New Chemicals Evaluation Unit) presented the process being used to obtain comments on the assessment of the four new substances and obtain relevant scientific information available since the assessments were concluded. An overview of the comments received to date was also presented. Participants then had the opportunity to ask questions of clarification.

Presentation Summary

It was indicated that the assessment reports were sent to 22 reviewers and concurrently made available to the public. Over 150 comments were received to date addressing issues on atmospheric and biological fate, polymer stability, exposure and toxicity. An additional two weeks are being given for comments to be submitted.

More than 100 relevant scientific publications have become available since the assessments were completed. Health Canada and Environment Canada are compiling and reviewing these data. An additional two weeks are being given for additional studies to be submitted.

To date, it has been observed that the newer studies address many of the comments received on the assessment reports. At this time, the comments and new data are not prompting a reconsideration of the original assessment conclusions.

A list of publications and presentations available since the assessment reports were completed was made available.

Question and Comment Session

New studies will be accepted and considered if provided by the time indicated in the presentation.

It was clarified that the list of publications that was provided contains "news" items from the scientific press which were identified during the literature search. These are not being considered as scientific studies.

PART 2 THE REGULATORY CONTEXT

Assessment and Management of Substances

An Environment Canada representative (Bernard Madé, Director, New Substances Division), provided an overview of assessment and management of substances under the Canadian Environmental Protection Act, 1999. Participants then had the opportunity to ask questions of clarification.

Presentation Summary

An overview was presented on the assessment of new and existing substances, the management of new substances, as well as the management of existing substances.

The Toxics Management Process was also presented. This included the stakeholder consultation aspect of the process and its objective of obtaining advice and comments from stakeholders on the proposed risk management strategy and instrument.

Question and Answer Session

In response to questions about input from Aboriginal groups, it was noted that the proposed Action Plan has been presented to the CEPA National Advisory Committee for comment, and there is aboriginal representation on that committee.

Addressing the four new substances has to be done over a short time period due to the legal time frame for proposing a regulation. However, other aspects of the Action Plan are not subject to the same time constraints and there could be additional consultative steps if needed.

PART 3 PROPOSALS ON PFCAs AND PRECURSORS

Overview of Proposed Action Plan

An Environment Canada representative (Greg Hammond, Head, New Chemicals Evaluation Unit), provided a general overview of the proposed Action Plan. Participants then had the opportunity to ask questions of clarification.

Presentation Summary

The elements of the proposed Action Plan were presented. These elements include:

- Addressing New Substances:
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    a. proposal on substances currently prohibited
    b. policy for future notifications
- Reducing "residuals" in existing substances
- Prioritizing and assessing existing PFCAs and precursors
- Furthering Scientific Research
- Cooperating Internationally
- Communicating the Action Plan via a "Notice of Intent".

Question and Answer Session

It was clarified that precursors to long chain PFCAs are defined as substances which are sources of the C9 or higher acids. This Action Plan is not focussing on C8 as there is an assessment of C8 currently underway in Canada. However, this proposal would be expected to have an impact on C8. For example, it is expected that reducing residuals would remove all chain lengths, including C8 precursors, even though the regulatory decisions behind the Action Plan are based on findings for C9 and above.

Sources of long chain PFCAs other than residual fluorotelomer intermediates include the degradation of fluorotelomer based substances resulting in PFCAs, direct sources of PFCAs, and sources from electrochemical fluorination processes.

There has been a survey of industry to determine activities in Canada related to this chemical class. The survey results will be used to group substances as appropriate for further assessment. New scientific information and conclusions from additional assessments could result in amendments to the Action Plan. In response to questions of when the assessments will be concluded, it was indicated there is not a predetermined time period for review and there is no intent to change the Canadian regulatory position on a frequent basis. Any consideration of a revised management approach would follow the appropriate process, which would have an element of consultation.

If a fluorotelomer based substance is subject to the New Substances Notification Regulations, and is notifiable, it will be assessed. If the substance contains long chain PFCA precursors, as indicated in the proposed Action Plan, it would be viewed as a potential source of PFCAs in the environment. If such a substance is claimed to be more stable than existing substances or contains a reduced level of residuals, at this time it would not affect the assessment of the new substance. The assessment and research component of the Action Plan can feed back into the management approach and this is where these issues may be considered. The assessment of any new substance is based on its own properties, and is not done in relation to other substances on the market.

Where residuals in an existing substance are reduced, it would not change the chemical name which is the basis for inventory listing; consequently, it is not expected these substances would be notifiable to the New Substances program.

If a substance name remains on the Domestic Substances List (the Canadian inventory of existing substances), there could be opportunity for someone to import or manufacture the substance with high levels of residuals. This raises questions on the type of instrument that should be used to achieve residual reduction, as well as enforcement and monitoring. These questions will be addressed, but not at this meeting.

It was clarified that the New Substances Notification Regulations apply to substances, but not manufactured items, e.g. carpet, a piece of clothing etc. As a consequence, articles may be imported from abroad which contain these substances. The international cooperation aspect of the Action Plan is of use in addressing this issue. Complementary actions in other jurisdictions will help to create an equally competitive environment.

The issues associated with long chain PFCAs include persistence, bioaccumulation, potential adverse effects and long range transport. Alternatives considered ecologically sound would address these undesirable characteristics.

Proposed Action Plan: New Substances

An Environment Canada representative (Josée Portugais, Head, Controls Development Unit), provided a general overview of the aspects of the proposed Action Plan dealing with New Substances. Participants then had the opportunity to ask questions of clarification.

Presentation Summary

A presentation was given which covered the need for action, exposure sources, the environmental objective and risk management objective for the four new substances. An overview of the Prohibition of Certain Toxic Substances Regulations, 2005 was presented, as were the next steps, which include:

- Draft proposed amendments to the Regulations
- Publish the proposals in the Canada Gazette, Part I
- Concurrent with these proposals, publish a Notice of Intent outlining all elements of the Action Plan
- A 60-day comment period follows the publication of the proposed amendments in the Canada Gazette, Part I.

Question and Answer Session

It was clarified that this proposed regulation would address Canadian sources of these four substances. The *Canadian Environmental Protection Act, 1999* does have the authority to address items to which these substances have been applied; however, factors such as enforceability need to be considered.

Analysis of domestic sources may be helped through a recent survey of Canadian industry, as well as socio-economic data gathered for the Regulatory Impact Assessment Statement (RIAS), which will be developed for the four new substances. Because these substances are new and therefore not in commerce in Canada, the economic impact is expected to be relatively low. The analysis will be completed to support the proposed Regulations.

In assessing what impact the proposed Regulations would have on the competitive position of Canada, it was noted there are different regulatory frameworks in different countries. For example in some other countries, notifications for new substances can be withdrawn, resulting in such substances not being introduced into commerce. This can result in an equivalent situation in other jurisdictions, but this would not be a public decision.

While these new substances may be more stable replacements for substances on the DSL, the approach is designed to avoid new sources. The Action Plan does address existing substances, and it is understood there are alternatives substances becoming available.

It was noted that human health objectives should be stated in addition to the environmental objectives and there may be benefit in giving the toxicology of these substances a higher profile. Environment Canada explained that the "environmental objective" stated for the new substances includes human health objectives.

A. FEEDBACK ON PROPOSED ACTIONS FOR NEW SUBSTANCES

In their table groups, participants focussed on the new substances portion of the proposed Action Plan. Each table group then reported their discussion highlights and recommendations in plenary. The following section provides a summary of the reports to plenary as well as comments from the table discussion report books. These are not consensus positions, but rather views expressed by table groups following the small group discussion:

What Participants Supported / Liked?

Clarity and Comprehensiveness of the Proposal

- The government's (HC/EC) position is clear.
- The proposal is very specific (i.e. targeted 9 carbon acids and higher, and in the case of existing substances, is focussed on reducing residuals).
- The proposal is comprehensive in that it targets both new and existing substances.
- The proposal embodies the precautionary approach.
- It is a good first step in protecting human health and the environment.

Process

- The consultation process is important and desirable. Participants appreciate the opportunity to influence the proposals.
- As new data/science/information becomes available, it will be important to re-evaluate the plan/approach.

Concerns and Issues Expressed by Participants

International Co-operation

- There was a concern that because the proposal does not include a prohibition on manufactured items containing PFCAs, the regulation could be circumvented if countries with lower standards than Canada are allowed to export items to Canada. Also, manufactured items containing PFCAs could contribute significantly to global loading.
- There was a view that Canada should take a leadership role, while others felt that any signal from Canada should be sent with caution.
- There was another view that expressed scepticism about the probability of achieving international cooperation.

Science

- There was a significant concern by some participants about the uncertainties around the science. The view expressed was that there was a need for:
    - Additional research on the four substances to identify their use, composition, etc. What is their contribution to global loading?
    - Additional research on degradation of the substances (e.g. long term stability of coatings, and emissions from landfills).
- There were other participants who felt the science behind the proposal is sound.

Communication

- Communication of the Action Plan needs to be done carefully to avoid marketplace disruption.
- There is a need to look into the social perceptions of the plan.
    - Developing the right communication strategy is important. There is concern that the message could be misinterpreted, especially because the proposal calls for a total ban on these products. Examples and precedents of other communication strategies need to be examined.
- There is a possible disconnect with the fact that polymers are potentially going on Schedule 1 of CEPA 1999, but PFCAs are not being considered for Schedule 1 inclusion at this time.

Impacts and Alternatives

- There was a view that some of the new substances that are proposed to be banned, could in fact provide environmental benefits if used as alternatives to some of the existing substances in commerce that may be more harmful to the environment.
- Are there viable alternatives that don't have negative environmental consequences?
- The socio-economic impacts of the proposal must also be considered. There is the potential for an "un-levelled playing field" if foreign manufacturers with lower domestic standards are allowed to export treated articles into Canada.
- What will be the real environmental and health impact of the proposal?

Process for preparing a Regulatory Impact Analysis Statement

An Environment Canada representative (Rafat Alam, Impact Analysis and Instrument Choice), provided a general overview of the need to prepare a Regulatory Impact Analysis Statement (RIAS) to support a proposed regulation in order to determine the impact on users.

A short electronic survey will be used to determine the end-users of the four substances currently subject to a Ministerial prohibition, and to gather information on alternatives. A target date for returning the survey will be the end of February 2006. The aggregate analysis will be made available to the public; however the underlying data will be protected.
Note: After further consideration, Environment Canada determined that qualitative analysis using available information was deemed appropriate for the purposes of the RIAS and that a survey would therefore not be required.

Proposed Action Plan: Existing Substances

An Environment Canada representative (Josée Portugais, Head, Controls Development Unit), provided a general overview of aspects of the proposed Action Plan for existing substances. Participants then had the opportunity to ask questions of clarification.

Presentation Summary

The presentation covered the need for early risk management action on residuals and how reducing residual fluorotelomer intermediates will reduce sources of PFCAs. The options for early risk management action were also presented; these included voluntary agreements and regulations. The "next steps" to determine the appropriate risk management option were outlined.

Question and Answer Session

There are PFCA impurities in these substances, not just precursor substances, consequently, mentioning these impurities would make for a more comprehensive proposal. Also, PFCAs have direct applications which should be mentioned.

There has not been any consideration to add long chain PFCAs to Schedule 1 of CEPA 1999 at this time. This may be considered as further discussions are held.

B. FEEDBACK ON PROPOSED ACTIONS FOR EXISTING SUBSTANCES

What Participants Supported / Liked

International Alignment

- The proposal provides good potential for alignment with the recently announced US EPA stewardship program.
- There is recognition of the contribution of international activities and the need to get other countries to comply.

The Voluntary Approach

- The plan provides the opportunity for progress with minimal market disruption.
- The voluntary option should bring faster results, limiting the impact on the environment.

The Construct of the Plan

- A focus on residuals is a good place to start.
- Proposal captures existing products but also expands beyond the four new substances.
- It is open ended, and provides an opportunity to make environmental progress, while building the science and with minimal market place disruption.

Concerns and Issues Expressed by Participants

The Construct of the Plan

- The plan is not complete, still in the preliminary stages. This makes it difficult to comment.
- The Risk Management approach does not list what objectives it is trying to achieve, or how success will be measured.
- Need additional details
- Need to identify how many of these existing substances we are referring to.

The Voluntary Approach

- There was debate about the merits and deficiencies of a voluntary approach. Some of the key points raised included:
    - Voluntary program would need transparency.
    - Voluntary approach is predicated on reducing residuals; however, there are still concerns with the degradation of products.
    - Need to level the playing field for the voluntary approach. How do you treat signing manufacturers versus non-signing manufacturers?

- If an environmental performance agreement is used, the following elements were proposed:
    - Each stakeholder needs to identify their contribution to the problem.
    - Each environmental performance agreement should contain
        - Targeted list of substances
        - Reduction targets
        - Deadlines
        - Baselines
        - Measurement methods
        - Accountability and transparency mechanisms
    - Global harmonization - start with the US EPA stewardship program.
    - Should be a two stage process in order to act fast.

Addressing Manufactured Items

- Need a mechanism to address imported items.
- Relationship between these substances and the manufactured items is unclear to people in the value chain.
- Need to identify how we can address manufactured items including imports. (E.g. How do we verify the level of PFCAs in the items from importers?)

Other Concerns

- Release of FTOHs from polymers was not clear.
- Scope is focusing on residual reduction of specific polymers.
- EC should be working with toxicity (terminal acids).
- How would the CEPA - Section 70 on provision of toxicity data apply?

At the end of the discussion, the following approaches emerged as options for dealing with existing substances:

1. Use a voluntary approach with a regulatory back stop.
2. Use a regulatory approach with an environmental performance agreement as a first step.
3. Consider Significant New Activity (SNAc) approach.

Other Considerations

The group also identified other practical considerations (technical or other) in reducing residuals:

- How much decrease is possible with existing technology?
- There is a need for a standardized analytical methodology.
- There is a need for uniform reporting e.g. residuals on a contained-in-solids basis.
- There will be a requirement for major investment and time for process changes. Dupont has committed to a significant reduction program for residuals in intermediates, products and manufacturing emissions.
- Companies that sign up for the US EPA program by March 1st should align with the Canadian proposal.
- It depends on what the goal or performance measurement is - % reduction, cap on content? What is the starting point for comparison - what year?
- We need technology driven standards - not technology forcing.
- There needs to be a more open process with industry to determine what is achievable in terms of residual reduction.

Proposed Action Plan: Research and International Cooperation

An Environment Canada representative (Greg Hammond, Head, New Chemicals Evaluation Unit), provided a general overview of the need for research and international cooperation. Participants then had the opportunity to ask questions of clarification.

Presentation Summary

This presentation spoke to the need for further research, what work is underway and some of the research areas which are contemplated. International cooperation in addressing issues of PFCAs is of importance as this is a global industry and there are long range transport aspects of the problem. Environment and Health Canada are looking to work cooperatively with other jurisdictions and all stakeholders to encourage management approaches, which complement Canadian actions.

Question and Answer Session

The US EPA has issued a stewardship challenge for PFOA, PFOA precursors and higher homologue chemicals. The Canadian proposals would be considered a subset of what the US EPA has articulated. Details of residual reduction need to be determined in conjunction with stakeholders.

The representative from the US EPA indicated their intention to work closely with Canadian regulatory authorities on this issue. Harmonization of approaches will increase opportunities for further international cooperation. To clarify the US EPA stewardship program, it does cover PFOA, PFOA precursors and higher homologue acids and precursors. It was noted that different approaches in the US and Canada are often traced back to legislative differences.

Prioritization of research would be helpful. It was noted the Canadian Wildlife Service (CWS) has a tissue bank which will be utilized. Air monitoring can be continued, perhaps continuous monitoring in the Arctic through the Meteorological Service of Canada (MSC). Further targeted bioaccumulation and bioavailability studies are being considered and a small study looking at perfluorinated substances including long chain PFCAs in land fill leachate is being undertaken. Advice, input and potential partners would be of use to Environment Canada.

The importance of quality assurance of analytical chemistry was stated; tissue bank sample integrity is also important. It was noted the CWS specimen bank has had very good history of sample integrity.

Time trend data will be of utility in measuring the impact of any regulatory or voluntary measures to address PFCAs and precursors.

It was suggested that researchers should work together to avoid duplication of work, address uncertainties and help focus priority work. However, it was noted there is a history of requiring multiple observations of relevant environmental behaviour before it becomes accepted, as in the case of environmental behaviour of brominated flame retardants. This should be kept in mind when looking to reduce duplication of studies.

CLOSING COMMENTS AND NEXT STEPS

In closing the meeting, an Environment Canada representative (*Bernard Madé, Director, New Substances Division*), thanked participants for openly expressing their views, ideas and suggestions on the proposed Action Plan. Early feedback indicated the meeting had been productive.

It was reiterated that it was difficult to avoid talking about PFOA at the meeting; however, the government did not want to pre-empt assessment conclusions on PFOA as the assessment is still active. At a certain point there will be a conclusion, and if need be, the files can be brought together.

Differences in mandate between the new and existing substances program need to be re-stated, including that the proposed actions are consistent with these mandates. The New Substances program is "premarket". There are uncertainties in the understanding of degradation of fluorotelomer based substances resulting in the release of PFCA precursors; consequently it is consistent with the mandate to prevent their introduction into Canada at this time. For existing substances, early risk management should address known relevant sources. Residuals are well understood, and should be addressed. Addressing the degradation of fluorotelomer based substances as a source of PFCA precursors will not be considered until we better understand the rates and circumstances to determine the importance of this source.

Some of the key messages heard during the meeting include an appreciation of the clarity of the proposal for the new substances, although there is a need to carefully consider the economic consequences of the proposal.

From the existing substances point of view we have heard about a voluntary approach with a regulatory backstop, and a regulatory approach with a voluntary first step. The Significant New Activity provisions of CEPA 1999 were mentioned, and this suggestion will be explored.

Communicating the proposals is very important; what we are trying to accomplish and the context for the proposals. Environment Canada and Health Canada are open to suggestions and advice on this matter.

Details of these proposals including measuring, reporting and others details need to be determined.

Many times during the meeting it has been indicated there is a need for an integrated cooperative approach with other jurisdictions in the areas of research and management.

As for next steps, additional comments on the assessment reports and on the new substances aspect of the Action Plan should be submitted within two weeks. For the balance of the Action Plan, comments will be welcomed over the next month, to help frame the thinking in the Notice of Intent.

The meeting report can be prepared within six weeks, accounting for preparation, review, translation and distribution.

Comments have already been received on the assessments. These will be combined with those to be received, and responses will be prepared. The target is to have a summary response by mid-April for posting on the New Substances website, and a more detailed version available by request.

Any proposed regulations and Notice of Intent will be published in the Canada Gazette, Part I and will be subject to a 60-day comment period.

All participants were thanked for their time and effort in making this a productive meeting.

Annexe A : Ordre du Jour

Appendix A: Consultation Agenda
ENVIRONMENT CANADA / HEALTH CANADA CONSULTATION MEETING ACTION PLAN ON PERFLUOROCARBOXYLIC ACIDS (PFCAs) AND PRECURSORS

6-7 Février 2006
Holiday Inn, 111, rue Cooper, Ottawa

ENVIRONMENT CANADA / HEALTH CANADA CONSULTATION MEETING
ACTION PLAN ON PERFLUOROCARBOXYLIC ACIDS (PFCAS) AND PRECURSORS

February 6- 7, 2006
Holiday Inn, 111 Cooper, Ottawa

PROPOSED AGENDA

Objectives

To clarify the context for the proposed Action Plan for PFCAs and precursors including:

- The science behind the proposed Action Plan
- The risk assessment and risk management process under the *Canadian Environmental Protection Act, 1999 (CEPA 1999)*

To obtain stakeholder feedback on the proposed Action Plan

ROADMAP

DAY 1 - February 6, 2006

12:30 Coffee, Registration

A. The Scientific Context

13:00 Welcome / Purpose — ***Anne O'Toole, Director General, Pollution Prevention - EC***

Process Review — ***Facilitator***

- Agenda, how we will work together
- Introductions

13:20 Framing the Science Session — ***Bernard Madé, Director, New Substances Branch - EC***

Terminology and Definitions — ***Greg Hammond, Head, New Chemicals Evaluation - EC***

Open Forum – Q&A

- Questions of clarification

14:15 A Review of the Science — ***Derek Muir, Project Chief - EC***

15:00 Health Break

15:15 Open Forum – Q&A

- Questions of clarification

16:00 New Substances Assessment Reports — ***Mark Lewis, Senior Evaluator - EC***

- External Review and Update of the Science

16:15 Wrapping Up Day 1 — ***Facilitator***

- Agenda review

16:30 End Day 1

DAY 2 - February 7, 2006

08:00 Coffee, Light Breakfast

B. The Regulatory Context

08:30 Getting Started — ***Facilitator***

CEPA 1999 and Risk Assessment/Risk Management — ***Bernard Madé***

- An overview

Director, New Substances Branch - EC

Open Forum Q&A

- Questions of clarification

C. Proposals on PFCAs and Precursors

09:30 The Proposed Action Plan for PFCAs and Precursors — ***Greg Hammond***

- An overview

Head, New Chemicals Evaluation - EC

10:00 Health Break

10:15 Proposed Actions for New Substances — ***Josée Portugais***

- Risk Management Strategy for four fluorotelomer based polymers

Head, Controls Development - EC

Q&A

Discussion

- Feedback & comments on the proposed Risk Management Strategy

12:00 Lunch

13:00 Proposed Actions for Existing Substances — ***Josée Portugais***

- Early risk management actions on residuals — ***Head, Controls Development - EC***

Q&A

Discussion

- Feedback & comments on the proposed early risk management actions

14:45 Health Break

15:00 The Research Agenda and International Cooperation — ***Greg Hammond***

Head, New Chemicals Evaluation - EC

Q&A

D. The Path Forward

15:30 Next Steps — ***Bernard Madé***

Director, New Substances Branch - EC

- Where to from here?
- Written comments

Closing Comments

16:00 End Day 2

Appendix B: List of Participants

Consultation Meeting on PFCA Action Plan
Ottawa, Ontario
February 6 - 7, 2006

Vivian Cothros
Manager Regulatory Services
3M Canada
London, ON

David E. Menotti
Pillsubry Winthrop Shaw Pittman
Representing Asahi Glass/ AGC Chemicals
Washington, D.C.

Erin Russell
Asst. General Counsel, Clariant
Charlotte, NC

Yasuo Eto
Senior Technical Director,
AGC Chemicals Americas
Bayonne, NJ

Fe de Leon
Canadian Environmental Law Association
Toronto, ON

Takashi Tozuka
Chemical Division Project Manager,
Daikin America Inc.
Osaka, Japan

Yukiko Nishiyama
Lampert & Associates for Daikin
Tokyo, Japan

John Fisher
Manager, Environmental Science
E.I. du Pont of Canada
Kingston, ON

Susan Stalnecker
Vice President, Risk Management
DuPont
Wilmington, DL

Stephen Korzienowski
Technology Manager
DuPont Research & Development
Wilmington, DL

Lysane Lavoie
Canadian Paint and Coatings Association
St. Laurent, QC

Dr. Seiji Shinya
Senior Manager, Environment & Safety Office
AGC Chemicals, Asahi Glass Co., Ltd.
Ichihara-shi, Chiba, Japan

Mary Dominiak
US EPA
Washington, D.C.

Roman Kostiuk
Manager Product Safety
Clariant (Canada) Inc.
St. Laurent, QC

Joyce K. Borkhoff
Head, Regulatory Services Canada,
Ciba Specialty Chemicals Canada Inc.
Mississauga, ON

Randy Roussel
Safety Manager
Daikin America Inc.
Decatur, AL

Edward Lampert
Lampert & Associates for Daikin
Tokyo, Japan

Dr. Philippe Koo Tze Mew
Manager, Regulatory Affairs
Hercules Canada
Mississauga, ON

Jack Soule
DuPont Regulatory Consultant
Kingston, ON

Gary Spitzer
DuPont
Wilmington, DL

Kathleen Shelton
Global Regulatory Leader
DuPont Research & Development
Wilmington, DL

Mike Levy
Manager Process Services & Quality Control
CKF Inc.
Hantsport, NS

Watze de Wolf
DuPont
Mechelen, Belgium

Mark Schreier
Business Manager
Hercules Inc.
Wilmington, DL

Robert Letcher
Canadian Wildlife Service,
Environment Canada
National Wildlife Research Centre
Ottawa, ON

Denis Dumont
Technical Superintendant
Glassine Canada
Quebec, QC

Rich Purdy
Balrd Farm Toxicological Services
River Falls, WI

Cindy Woodland
New Substances, Health Canada
Ottawa, ON

Robert Chénier
Existing Substances
Environment Canada
Gatineau, QC

Graham White
New Substances, Health Canada
Ottawa, ON

Bernard Madé
New Substances, Environment Canada
Gatineau, QC

Rafat Alam
REAB, Policy & Communications
Environment Canada
Gatineau, QC

Mark Lewis
New Substances, Environment Canada
Gatineau, QC

Bette Meek
Existing Substances, Health Canada
Ottawa, ON

Gillian Higenbottam
Existing Substances, Health Canada
Ottawa, ON

Anne-Marie Pelletier
New Substances, Environment Canada
Gatineau, QC

Ake Bergman
Professor, Stockholm University
Appointed by the Swedish Chemical Inspectorate
Stockholm, Sweden

Max Taytelbaum
Director, Global Regulatory Affairs
Hercules Inc.
Wilmington, DL

Julie Eble, PhD
CEO and Consultant
Critical Path Services, LLC
Wilmington, DL

David Gray
Tetra Tech Divisions
Fairfax, VA

Marina Vivas
Chemical Health Hazard Assessment Division,
Health Canada
Ottawa ON

Anita Miettunen
Existing Substances, Environment Canada
Gatineau, QC

Gordon Cockell
Management of Toxic Substances, Health Canada
Ottawa, ON

Myriam Hill
New Substances, Health Canada
Ottawa ON

Josée Portugais
Chemicals Control, Environment Canada
Gatineau, QC

Greg Hammond
New Substances, Environment Canada
Gatineau, QC

Nancy Seymour
Chemicals Control, Environment Canada
Gatineau, QC

Roger Sutcliffe
Existing Substances, Health Canada
Ottawa, ON

Kristin Macey
Management of Toxic Substances, Health Canada
Ottawa, ON

Jackie Sitwell
New Substances, Health Canada
Ottawa, ON

Ruben Gandia
New Substances, Health Canada
Ottawa, ON

Alexandre Sene
Categorization Section
Environment Canada
Gatineau, QC

Delores Broten
Reach for Unbleached Foundation
Whaletown, BC

Sheila Cole
Environmental Health Association of Nova Scotia
Halifax, NS

Barbara McElgunn
Learning Disabilities Association of Canada
Toronto, ON