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Item 4 (e) of the provisional agenda\*

**Implementation of the Strategic Approach to  
International Chemicals Management:**

**emerging policy issues**

**Progress report on managing perfluorinated chemicals and the  
transition to safer alternatives**

**Note by the secretariat**

1. The secretariat transmits herewith the report of the Organization for Economic Cooperation and Development (OECD) submitted pursuant to resolution II/5 of the International Conference on Chemicals Management. The report, prepared in consultation with the United Nations Environment Programme, was submitted to the Open-ended Working Group of the Conference at its first meeting, held in Belgrade from 15 to 18 November 2011 (see SAICM/OEWG.1/13). It has subsequently been updated to reflect the additional progress made since that meeting.

2. The work described in the report was carried out during the period following the second session of the International Conference on Chemicals Management. The establishment of a global group on perfluorinated chemicals, as described in the report, was initiated to enhance the implementation of resolution II/5 and to help facilitate the participation of all interested Governments, non-governmental organizations and stakeholders, especially those that are not OECD member countries.

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\* SAICM/ICCM.3/1.

## Progress report on managing perfluorinated chemicals and the transition to safer alternatives

### I. Background

1. By its resolution II/5, the International Conference on Chemicals Management invited the other organizations participating in the Inter-Organization Programme for the Sound Management of Chemicals in cooperation with the Organization for Economic Cooperation and Development (OECD), as part of their mandate and work programme, together with Governments and other stakeholders, to consider the development, facilitation and promotion in an open, transparent and inclusive manner of national and international stewardship programmes and regulatory approaches to reduce emissions and the content of relevant perfluorinated chemicals (PFCs) of concern in products and to work towards global elimination, where appropriate and technically feasible.
2. It encouraged Governments and other stakeholders participating in the stewardship programme to also work with the organizations participating in the Inter-Organization Programme for the Sound Management of Chemicals in cooperation with OECD to contribute to:
  - (a) Information-gathering activities, such as the recently developed OECD survey of product content and environmental release information on perfluorinated sulfonate (PFOS), perfluorooctanoic acid (PFOA), their related substances, and products and mixtures containing those substances;
  - (b) Information exchange on alternatives currently in use, including short-chain fluorocarbons, and potentially safer alternative substances or technologies for their use; on criteria for alternatives; on the necessity and possibility of technology transfer; on progress in and examples of regulatory actions and voluntary programmes; on monitoring; on emissions; on exposure; on environmental fate and transport; and on the potential effects of perfluorinated chemicals and alternatives on human health and the environment.
3. It noted that such work might contribute relevant information to the Stockholm Convention on Persistent Organic Pollutants and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal and invited the stewardship programmes to submit a report on progress, consider comments, and invite further action at the first meeting of the Open-ended Working Group and the third session of the International Conference on Chemicals Management.
4. At the forty-fourth OECD Joint Meeting of the Chemicals Committee and the Working Party on Chemicals, Pesticides and Biotechnology, held on 10 and 11 June 2009, the participants agreed that the OECD Steering Group on PFCs should work with the Inter-Organization Programme for the Sound Management of Chemicals to encourage Governments and other stakeholders to participate in PFC risk-reduction programmes; to contribute to the OECD survey of product content and environmental release information on PFOS, perfluorinated alkylated substances (PFAS), perfluorinated carboxylic acids (PFCA), their related substances and products or mixtures containing them; to exchange information on alternatives currently in use; and to report to the Open-ended Working Group at its first meeting and to the International Conference on Chemicals Management at its third session.
5. The tasks to be undertaken over the period 2010–2012 include:
  - (a) PFC survey among major producers in 2011;
  - (b) Information-sharing on alternative substances and technologies;
  - (c) Promotion of stewardship and regulatory activities;
  - (d) Establishment of a global PFC group;
  - (e) Reporting progress to the Open-ended Working Group at its first meeting and to the International Conference on Chemicals Management at its third session.
6. The present report describes progress under subparagraphs (a) to (d) of paragraph 5 above.

## II. PFC survey among major producers in 2011

7. A survey among major producers of PFCs was carried out in 2009 and the results published in 2011.<sup>1</sup> Whereas the previous two surveys (in 2004 and 2006) requested participating countries to collect information on all PFCs and their products manufactured in or imported into their jurisdictions, this survey focused on manufacturers of a defined list of chemicals and/or their products in OECD and non-OECD countries. The survey focused on PFAS with chain lengths of C6 and higher (including PFOS) and PFCA with chain lengths of C8 and higher (including PFOA) and potential precursors of carboxylic acids in fluorotelomer-based products. Of the companies surveyed, 55 per cent were not from OECD member countries. No responses were received from companies in those countries, however, highlighting the need for outreach activities to encourage companies in non-OECD countries to participate in the survey to allow an accurate estimation of the global environmental loading of these chemicals.

8. Consequently, the undertaking of the next PFC survey was delayed to 2012, in order to allow additional time for effective outreach to non-OECD producers.

## III. PFC web portal

9. To facilitate information exchange, a PFC web portal and content have been developed by the PFC Steering Group. The portal was made available on the OECD website in August 2010 at [www.oecd.org/ehs/pfc](http://www.oecd.org/ehs/pfc). Although the Steering Group's input has been exhausted, as it was felt that the portal needed further information to become a useful tool a letter was sent in August 2010 to OECD countries in order to seek additional input. This has not, however, generated as much information as was hoped. Further input from OECD and Strategic Approach members would therefore be highly welcome.

## IV. PFC events

10. The PFC Steering Group decided to hold web-based seminars and side events at important gatherings to increase the dissemination of information about PFCs. The following events have taken place to date:

(a) *Web-based seminar on recent PFC-related activities, 27 October 2010.* This event allowed for information to be exchanged on recent regulatory initiatives and featured presentations of the PFC web portal and of recent activities in Japan, the United States of America and the European Union and by the Stockholm Convention and industry;

(b) *Web-based seminar on the 2009 PFC survey, 2 March 2011.* This event provided a presentation of the results of the 2009 PFC survey led by Australia, in addition to the perspectives of industry and the United States Environmental Protection Agency. A report was delivered on the key results of the survey about the use of PFCs and PFC products, in addition to releases of PFCs to the environment and off-site transfers. One of the findings of the survey was that few perfluorinated compounds were released to air or water systems compared to landfill or off-site transfer for incineration;

(c) *Web-based seminar on alternatives to long-chain PFCs, 18 April 2011.* This event was organized jointly by OECD and the Secretariat of the Stockholm Convention and brought together insights gleaned from work on alternatives to long-chain PFCs in both bodies. The event included presentations on guidelines on alternatives to PFOS-related substances developed by the Persistent Organic Pollutants Review Committee, on alternatives to PFCs more generally by the industry, on efforts on alternatives in the United States and on the management of PFCs in Japan;

(d) *Side event on PFCs at the fifth meeting of the Conference of the Parties to the Stockholm Convention on 28 April 2011 in Geneva.* This event saw a presentation of the new global PFC group currently being established (see below), the results of the 2009 PFC survey and recent regulatory and risk management activities in the United States. The last-mentioned in particular provided an up-to-date overview of the United States Environmental Protection Agency's long-chain PFC action plan and current actions to address unreasonable risks posed by long-chain PFCs;

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1 [www.oecd.org/officialdocuments/displaydocumentpdf?cote=env/jm/mono\(2011\)1&doclanguage=en](http://www.oecd.org/officialdocuments/displaydocumentpdf?cote=env/jm/mono(2011)1&doclanguage=en).

(e) *Brainstorming workshop in conjunction with the Asia-Pacific regional meeting of the Strategic Approach on 5 September 2011 in Beijing.* This workshop helped to prepare the ground for a new PFC survey and to generate new ideas for additional activities, especially relating to the needs of developing countries.<sup>2</sup>

(f) *Technical briefing on PFCs in the framework of the first meeting of the Open-ended Working Group, Belgrade, 14 November 2011.* This event highlighted some of the key environmental, health and safety concerns linked to PFCs, as well as illustrating the regulatory approaches that are being undertaken in Germany. OECD and the United Nations Environment Programme (UNEP) reported on progress made in establishing a global PFC group and encouraged further nominations from Strategic Approach participants;

(g) *Web-based seminar on PFC survey methodology for the Asia-Pacific region, 31 January 2012.* This event included presentations on the PFC survey methodology by Australia and on the work of the global PFC group by OECD and UNEP. Additional perspectives on the survey were provided by the United States of America and FluoroCouncil, an industry body. The participation of the Indian Chemical Council was significant, and agreement was reached on following up specifically with the Council with a view to deepening discussions.

11. The United States provided the technical platform for the organization of the web-based seminars, which typically attracted between 20 and 40 experts, while some 100 people attended the side event held at the fifth meeting of the Conference of the Parties to the Stockholm Convention and a similar number attended the technical briefing on PFCs held during the first meeting of the Open-ended Working Group in November 2011.

## V. Establishment of a global PFC group

12. To enhance and further the implementation of resolution II/5 and to help facilitate the participation of all interested Governments, non-governmental organizations and stakeholders, especially those that were not OECD member countries, at the Joint Meeting the participants recommended that the OECD PFC Steering Group should be replaced by a global PFC group. The new group will receive secretariat support from OECD and the Chemicals Branch of the UNEP Division of Technology, Industry and Economics.

13. UNEP sent letters to the Strategic Approach regional focal points requesting the nomination of experts to the group.

14. The terms of reference for the group were discussed at the first meeting of the Open-ended Working Group. The PFC Steering Group, in cooperation with UNEP, has since revised the terms of reference, which are set out in annex II to the present report.

15. The Global PFC Group has now been established, with members from Australia, Benin, Brazil, Canada, Cuba, the Czech Republic, Germany, Haiti, India, Japan, the Republic of Korea, the Netherlands, Norway, Panama, Pakistan, Sweden, Switzerland, the United States of America and the European Union. The Russian Federation and China also participated in the Group's first conference call. In addition, a number of industry representatives and non-governmental organizations participate in the Group, as do the secretariats of the Strategic Approach and the Stockholm Convention.

16. The Group's first conference call took place on 1 March 2012 and focused on the discussion of a programme of work for 2012–2015. A draft programme of work was developed and endorsed by the Group. They key activities are as follows:

- (a) Regular updates of the PFC portal hosted on the OECD website;
- (b) Synthesis papers on issues such as regulatory approaches, scientific insights and alternatives to PFCs;
- (c) "Webinars" and other events on specific PFC-related issues;
- (d) A new survey of the production and use and releases of PFCs;
- (e) A paper on the uses of PFCs;

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<sup>2</sup> See the summary record of the workshop at: [www.oecd.org/document/33/0,3746,en\\_21571361\\_44787844\\_44799777\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/33/0,3746,en_21571361_44787844_44799777_1_1_1_1,00.html).

- (f) Cooperation with the Stockholm Convention on PFOS-related issues.

The detailed programme of work is set out in annex I.

## **VI. Possible action**

17. The International Conference on Chemicals Management is invited to take note of the information contained in the present report and to provide feedback on the programme of work of the Global PFC Group for 2012–2015. The Conference is also invited to submit further nominations for members of the Global PFC Group.

## Annex I

### **Draft proposal for the programme of work of the Global PFC Group for 2012-2015**

1. In order to support the implementation of resolution II/5, the Organization for Economic Cooperation and Development (OECD) and the United Nations Environment Programme (UNEP) undertook to establish a Global PFC Group to provide a global platform for information exchange and gathering on perfluorinated chemicals (PFCs).
2. While the production of PFCs used to be concentrated in OECD member countries, more and more of it has been moving to developing economies in recent years. Therefore, the International Conference on Chemicals Management at its second session agreed to extend work in this area, previously confined to the OECD region, to also cover emerging and developing economies. UNEP and OECD are providing the secretariat function for the Global PFC Group.
3. At its first meeting, held on 1 March 2012 (by conference call), the Global PFC Group discussed ideas for activities that it could usefully carry out to support the implementation of resolution II/5. The discussion benefited from input from a brainstorming session on this issue that took place at a PFC workshop held in conjunction with the SAICM Asia-Pacific regional meeting held in Beijing in September 2011. A summary report of the discussions on PFC is available on the OECD website.<sup>a</sup>
4. On the basis of discussions held at its first meeting, the Global PFC Group tasked UNEP and OECD with developing a draft work programme for further discussion by the Group. The first draft of this document is presented below.
5. Further information on the global Group on PFCs, including summary records of workshops, calls and other activities, is available at [www.oecd.org/ehs/pfc](http://www.oecd.org/ehs/pfc).

### **Resolution II/5 of the International Conference on Chemicals Management, on managing perfluorinated chemicals and the transition to safer alternatives**

6. By its resolution II/5, the International Conference on Chemicals Management invited the other organizations participating in the Inter-Organization Programme for the Sound Management of Chemicals in cooperation with OECD, as part of their mandate and work programme, together with Governments and other stakeholders to consider the development, facilitation and promotion in an open, transparent and inclusive manner of national and international stewardship programmes and regulatory approaches to reduce emissions and the content of relevant PFCs of concern in products and to work towards global elimination, where appropriate and technically feasible.
7. It encouraged Governments and other stakeholders participating in the stewardship programme to also work with the organizations participating in the Inter-Organization Programme for the Sound Management of Chemicals in cooperation with OECD, to contribute to:
  - (a) Information-gathering activities, such as the recently developed OECD survey of product content and environmental release information on perfluorinated sulfonate (PFOS), perfluorooctanoic acid (PFOA), their related substances and products and mixtures containing those substances;
  - (b) Information exchange on alternatives currently in use, including short-chain fluorocarbons, and potentially safer alternative substances or technologies for their use; on criteria for alternatives; on the necessity and possibility of technology transfer; on progress in and examples of regulatory actions and voluntary programmes; on monitoring; on emissions; on exposure; on environmental fate and transport; and on the potential effects of perfluorinated chemicals and alternatives on human health and the environment.

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a <http://www.oecd.org/dataoecd/49/42/48725846.doc>

8. It noted that such work might contribute relevant information to the Stockholm Convention on Persistent Organic Pollutants and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal and invited the stewardship programmes to submit a report on progress, consider comments, and invite further actions at the first meeting of the Open-ended Working Group and the third session of the International Conference on Chemicals Management.

### **Proposal for work in 2012–2015**

9. The mandate to exchange and gather information about PFCs, contained in resolution II/5, remains highly relevant given an increasing interest in OECD and developing countries in this particular chemistry, and a trend towards restricting the use of some of these chemicals at the international or national level. While some data is now available on the measurements of PFCs in the environment, there remains a critical and largely unmet need for information on PFCs on both the technical and policy levels, particularly in developing countries. A large part of the activities that are proposed for the period 2012–15 seek to address this information gap.

10. Given the broad array of different chemicals that are potentially covered by the term perfluorinated chemicals, a distinction is made between long-chain perfluorinated compounds (LC PFCs) and short-chain perfluorinated compounds (SC PFCs), based on the toxicity and bioaccumulation differences between LC PFCs and SC PFCs.

11. “Long-chain perfluorinated compounds” refers to:

- Perfluorocarboxylic acids with carbon chain lengths C8 and higher, including perfluorooctanoic acid (PFOA)
- Perfluoroalkyl sulfonates with carbon chain lengths C6 and higher, including perfluorohexane sulfonic acid (PFHxS) and perfluorooctane sulfonate (PFOS)
- Precursors of these substances that may be produced or present in products

12. For definition purposes “precursor” means a substance that has been recognized as having the potential to degrade to perfluorocarboxylic acids with a carbon chain length of C8 and higher (including PFOA) or perfluoroalkyl sulfonates with a carbon chain length of C6 or higher (including PFHxS and PFOS).

### **Activity 1: PFC web portal**

13. The OECD established a PFC Web Portal ([www.oecd.org/ehs/pfc](http://www.oecd.org/ehs/pfc)), which is designed to facilitate information exchange on perfluorinated chemicals (PFCs). Stakeholders can share information on government activities related to their regulatory and stewardship efforts, updates on scientific developments, new technologies, available alternatives and PFC-related events. Although the portal is being managed by the OECD Secretariat under a set of governance procedures, OECD and non-OECD countries and stakeholders are encouraged to participate and share information.

14. This activity would involve the undertaking of efforts to further populate the PFC web portal, including with relevant information from developing and emerging economies.

*Output:* up-to-date PFC web portal (ongoing)

### **Activity 2: Synthesis papers**

15. While the OECD PFC web portal provides a useful tool to facilitate information exchange, there appears to be a need for more synthesized information than is currently available from the website. This would be especially useful to help raise awareness in senior management in key institutions, and especially in countries that are currently at the stage of contemplating possible risk management actions on PFCs. The following synthesis papers could be developed by the Global PFC Group in the course of 2012:

- A synthesis paper on scientific evidence on PFCs including shorter-chain C6 and C4 substances
- A paper that summarizes information about regulatory approaches (e.g., those applied in the OECD)
- A synthesis paper on alternatives to long-chain PFCs, including non-fluorinated and non-chemical alternatives

*Outputs:* 3 synthesis papers (2012)

### Activity 3: Webinars and other events

16. In order to supplement the dissemination of information that will be achieved through the PFC web portal and the synthesis papers, it is proposed that a series of webinars and other events be held in order to reach out in a more proactive way to interested stakeholders. Up to four webinars and one other event could be held every year.

17. It is proposed to focus a first set of webinars on the topics covered in the synthesis papers:

- Regulatory approaches
- Scientific evidence
- Alternatives to long-chain PFCs
- Major uses and economic benefits of different categories of PFCs

Webinars could be led by different members of the Global PFC Group and carried out over the period 2012–2015.

18. Furthermore, one side event or workshop could be organized in the framework of a major relevant gathering, such as the International Conference on Chemicals Management, the forum for Chemical Dialogue held under the auspices of the Asia-Pacific Economic Cooperation Committee on Trade and Investment or the Conference of the Parties to the Stockholm Convention, with the objective of gathering further interest and support for the work of the Global PFC Group.

*Output:* series of webinars and events (2012–2015)

### Activity 4: PFC survey

19. Information about releases of PFCs to the environment is scarce. The OECD developed a survey on the production, use and release of PFOS, PFAS, PFOA PFCA, their related substances and products/mixtures containing these substances, which provides data from PFC producers in 2009. However, this only covers OECD producers. In order to provide a more global picture the effort needs to be broadened to bring in companies from developing and emerging economies. In order to achieve this, it is proposed (a) to start by reaching out to the main PFC producers that are located outside OECD, in particular those countries that might be producing PFCs, such as the Russian Federation, China and India,<sup>b</sup> and identify possible support measures that might be required to facilitate the participation of the facilities producing PFCs (2012), (b) to discuss and agree on the survey methodology in an expert workshop (late 2012 or early 2013), (c) to implement the survey (in 2013), and (d) to publish the outcome of the survey (early 2014).

20. As an intermediate step, and to speed up the availability of information, an estimate of global emissions of long-chain PFCs from production in countries not currently participating in the survey process could be developed in 2012, based on the 2009 OECD survey and expert estimates for other work regions. This estimate, combined with actual data from the 2009 PFC survey of the OECD region, could serve as a global estimate of long-chain PFC emissions.

*Outputs:* One paper estimating global PFC emissions from companies producing in non-OECD countries and not participating in the survey process (2012), one PFC survey (2014)

### Activity 5: Information about uses of PFCs

21. Most countries are not producing or processing PFCs but merely import products that contain these chemicals. The main issue for them is to improve their understanding of articles/products which are being imported that contain PFCs. There is hence a need for information that could help to identify these products. A synthesis paper that presents the major uses of different categories of PFCs could help to meet this need and would be developed in 2012–2013.

*Output:* one synthesis paper on major uses of PFCs (2013)

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<sup>b</sup> *Report of an OECD Workshop on Perfluorocarboxylic Acids (PFCAs) and Precursors*, Stockholm, 20-22 November 2006 (ENV/JM/MONO(2007)11), OECD, 2007. Available at: [http://www.oecd.org/officialdocuments/displaydocumentpdf/?cote=env/jm/mono\(2007\)11&doclanguage=en](http://www.oecd.org/officialdocuments/displaydocumentpdf/?cote=env/jm/mono(2007)11&doclanguage=en)

**Activity 6: Cooperation with the Stockholm Convention**

22. The Global PFC Group would also lend its support to the development of guidance for the updating of national implementation plans under the Stockholm Convention and other relevant activities within the Stockholm Convention that would benefit from such support. PFOS were added to Annex B to the Stockholm Convention on Persistent Organic Pollutants in May 2009.

*Output:* facilitate outreach efforts by the Stockholm Convention secretariat to parties and other interested stakeholders (ongoing).

## Annex II

### Terms of reference of the Global PFC Group

#### Composition

1. The Global PFC Group would be an inclusive group, and would welcome up to five representatives from each of the SAICM regions, non-governmental organizations, and other international organizations, as well as current OECD participants on PFCs activities. The composition of the Group could be as follows:

*Regional representatives*

[Africa]

[Asia-Pacific]

[Central and Eastern Europe]

[Latin America and the Caribbean]

[Western Europe and others]

*Non-governmental organizations*

[Health sector]

[Industry sector]

[Public interest sector]

[Trade unions sector]

*IOMC*

[IOMC representative]

*Stockholm Convention Secretariat*

[Stockholm Convention Secretariat]

*OECD*

[OECD country]

[OECD stakeholder]

*Global PFC Group Secretariat*

[UNEP Secretariat]

[OECD Secretariat]

The Global PFC Group is open to observers from Governments, intergovernmental organizations, and non-governmental organizations that might want to participate in the activities and information exchange.

### Objectives of the Global PFC Group

2. The aim of the Global PFC Group is to facilitate information exchange and information gathering on PFCs, i.e., perfluorinated octylsulfonate, perfluorooctanoic acid, their related substances and products and mixtures containing these substances:<sup>a</sup>

- On the product content and environmental release
- On alternatives for uses and potentially safer alternative substances or technologies for their uses
- On criteria for identifying potentially safer alternative substances or technologies
- On the necessity and possibility of technology transfer
- On progress in and examples of regulatory action and voluntary programmes
- On environmental fate and transport
- On monitoring
- On emissions
- On exposure of humans and the environment
- On the potential effects of these substances and alternatives on human health and the environment

### Proposed work for 2011-2012

3. The main elements of work that have been proposed include:

- (a) PFC survey among major producers in 2012;
- (b) Information sharing on alternative substances and technologies through the PFC Web Portal, webinars and side-events;
- (c) Promotion of stewardship and regulatory activities through the PFC Web Portal, webinars and side-events; and
- (d) Reporting progress to ICCM.3.

4. These activities could be carried out provided that sufficient voluntary contributions are made available.

5. It is foreseen that the Global PFC Group would work through conference calls and e-mails rather than face-to-face meetings. It should therefore be a group that requires limited resources to operate.

### Governance structure

6. OECD and UNEP Chemicals Branch, will chair the teleconferences and carry out the secretariat functions for the Global PFC Group.

7. The Global PFC Group will at its first meeting discuss, eventually amend and adopt the terms of reference for the Global PFC Group, as well as discuss and adopt a work programme.

8. The Secretariat will be responsible for:

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a \* The focus of the work will be on long-chain perfluorinated compounds, i.e.:

- Perfluorocarboxylic acids with carbon chain lengths C8 and higher, including perfluorooctanoic acid (PFOA)
- Perfluoroalkyl sulfonates with carbon chain lengths C6 and higher, including perfluorohexane sulfonic acid (PFHxS) and perfluorooctane sulfonate (PFOS)
- Precursors of these substances that may be produced or present in products

For definition purposes "precursor" means a substance that has been recognized as having the potential to degrade to perfluorocarboxylic acids with a carbon chain length of C8 and higher (including PFOA) or perfluoroalkyl sulfonates with a carbon chain length of C6 or higher (including PFHxS and PFOS).

- Organizing meetings of the Global PFC Group
- Consultation with the SAICM secretariat to ensure coordination of inputs for the International Conference on Chemicals Management
- Consultation with other stakeholders outside the Global PFC Group
- Preparation of progress reports to SAICM (International Conference on Chemicals Management)

9. The new group will receive secretarial support from OECD and UNEP Chemicals Branch, and work together with the SAICM Secretariat.

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