

INTERNATIONAL LABOUR ORGANIZATION

Report

**Meeting of Experts on the Revision of the List
of Occupational Diseases**
(Recommendation No. 194)

Geneva, 27–30 October 2009



INTERNATIONAL LABOUR OFFICE GENEVA

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Introduction

1. At its 301st Session (March 2008), the Governing Body of the International Labour Office decided to convene a Meeting of Experts on the Revision of the List of Occupational Diseases (Recommendation No. 194). The Meeting was held in Geneva from 27 to 30 October 2009.

Agenda

2. The agenda of the Meeting, as approved by the Governing Body at its 303rd Session (November 2008), was as follows:

To complete the work accomplished by the Meeting of Experts on Updating the List of Occupational Diseases (13–20 December 2005), on the basis of the common ground about the scope and contents of the revised list of occupational diseases¹ achieved through the tripartite consultations conducted by the Office, further to the request made by the Governing Body at its 295th Session in March 2006.

Participants

3. Twenty-one experts were invited to the Meeting. Seven of these were appointed after consultations with the Governments of Canada, Chile, China, France, Russian Federation, South Africa and Thailand. Seven were appointed after consultations with the Employers' group and seven after consultations with the Workers' group of the Governing Body. The Meeting was also attended by the representatives of the European Commission (EC), World Health Organization (WHO), International Organisation of Employers (IOE),

¹ Scope and contents of the revised list of occupational diseases:

(1) The definition of the term "occupational disease" in the Protocol of 2002 to the Occupational Safety and Health Convention, 1981 (No. 155), and the definition of occupational diseases in the Employment Injury Benefits Recommendation, 1964 (No. 121), will define the scope within which the updating of the list of occupational diseases annexed to Recommendation No. 194 by the Meeting will take place.

(2) In view of the fact that open-ended items do exist in the current list annexed to Recommendation No. 194, modifications of these items will be based on the amendments submitted to the Committee on Occupational Accidents and Diseases of the 90th Session of the International Labour Conference in 2002 and be consistent with the definitions of occupational diseases referred to in the above paragraph (1).

(3) The diseases included in Schedule I of the Employment Injury Benefits Convention, 1964 (No. 121), will all be included.

(4) Individual diseases items in the lists proposed by the Employer experts and by the Government and Worker experts at the 2005 Meeting of Experts which did not raise any controversy during the 2005 Meeting of Experts will, in principle, be retained.

(5) New occupational diseases not included in the lists proposed by the Employer experts and by the Government and Worker experts at the 2005 Meeting of Experts will not be considered unless there is a consensus among the experts at the forthcoming 2009 meeting.

International Trade Union Confederation (ITUC), International Council of Nurses (ICN), International Commission on Occupational Health (ICOH) and the International Social Security Association (ISSA).

4. The list of participants is annexed to this report.

Opening address

5. Mr George Dragnich, Executive Director of the Social Dialogue Sector of the ILO, opened the Meeting and welcomed all participants on behalf of the ILO Director-General, Mr Juan Somavia. He conveyed the greetings of Mr Assane Diop, Executive Director of the Social Protection Sector, who was unable to attend the Meeting. He expressed his gratitude to the experts for having agreed to serve for the Meeting with their valuable expertise. He also welcomed observers from the international organizations, thanking them for their willingness to contribute to the success of the Meeting.
6. He emphasized the significance of social dialogue for the improvement of working conditions, including the issues related to occupational diseases. He pointed out that the objective of the Meeting was to revise the list of occupational diseases annexed to Recommendation No. 194 on the basis of the tripartite consultations carried out by the Office and of the work done by the Meeting of Experts in December 2005.
7. He highlighted the importance of the work of the Meeting as the world's working population and their families would benefit from the output of the Meeting. He was confident that the experts would work as a skilled team, putting together their knowledge and experience in producing a single revised list of occupational diseases, based on consensus. Finally, he reminded participants that they had been appointed as individual experts, serving in their own personal capacity and not representing any governments, groups or other interests.

Election of the Chairperson and Reporter

8. Ms Eva Anna Karpinski, the expert nominated by the Government of Canada, was unanimously elected as Chairperson of the Meeting. Dr Rui Chen, the expert nominated by the Government of China, was unanimously elected as Reporter of the Meeting.

Presentation of the working documents

9. Dr Sameera Al-Tuwaijri, Director of the Programme on Safety and Health at Work and the Environment (SafeWork) and representative of the ILO Director-General, presented the working documents. The list of occupational diseases proposed by the Office was built on the work of the 2005 Meeting of Experts and was agreed upon thanks to the very constructive process of tripartite consultations which took place before the current Meeting. The working documents represented the consensus achieved during the tripartite consultations. The new list established at this Meeting would be submitted to the Governing Body for its approval at its 307th Session in March 2010, and once approved would replace the list of occupational diseases annexed to Recommendation No. 194.
10. Dr Shengli Niu, Senior Specialist on Occupational Health of SafeWork, deputy representative of the ILO Director-General, made an introductory presentation and explained the process which led to the proposed list of occupational diseases. He gave an overview of the global situation on occupational diseases and reviewed the historical

development of relevant ILO standards. He also outlined the mechanisms embodied in Recommendation No. 194 for the updating of the list of occupational diseases.

11. Regular review and updating of the list of occupational diseases was essential in order to reflect the latest development in scientific knowledge and technology advancements. The Office started the preparation for updating the list of occupational diseases soon after the adoption of the List of Occupational Diseases Recommendation, 2002 (No. 194). This included the evaluation of the scientific development in the identification of occupational diseases, the analysis of national and other lists of occupational diseases and the comments received from member States. The 2005 Meeting of Experts examined the amendments made to the list of occupational diseases at the 2002 International Labour Conference, as well as the responses to the questionnaire from the member States. While substantive progress was achieved for the updating of the list, the Meeting could not complete the task fully.
12. Dr Niu described the steps taken after the 2005 Meeting for the preparation of the current Meeting. As requested by the Governing Body, the Office carried out consultations with employers, workers and governments. The agreement reached by these consultations included the following points:
 - to introduce a footnote after the title “list of occupational diseases” which reads “In the application of this list the degree and type of exposure, the work or occupation involving a particular risk of exposure should be taken into account when appropriate.”;
 - to keep and modify the open items in the list;
 - to make editorial changes to the list format including to signify that the diseases in the list are occupational by nature and caused by exposure arising from work activities;
 - not to include general criteria in the list. The general criteria proposed by the Employers at the 2005 Meeting of Experts are for the experts to use as a basis for their work during the 2009 Meeting; and
 - to consent to the scope and contents of the revised list.

General discussion

13. The Worker experts pointed out the importance of agreements reached through consultation meetings, in particular as regards the open items. The Worker experts were prepared to accept the agreed contents in the proposed list during the consultations, including the new wording as a block, if the Employer and Government experts would also agree.
14. The Employer experts stated that they would not like to revisit issues agreed upon during the consultations. They considered that problems encountered at the previous Meeting should be avoided and that the updating of the list on a more regular basis in the future should be emphasized. The Employer experts accepted the agreed contents of the proposed list along the same lines as the Worker experts and that only the problematic items should be revisited. They would not propose any new changes.
15. The Government experts accepted the proposal from the Worker experts.
16. The Meeting adopted the list of occupational diseases which did not include those problematic items identified during the tripartite consultations.

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- 17.** The Worker experts expressed their agreement with the four paragraphs in section 8, “Decision-making process at the Meeting of Experts on the Revision of the List of Occupational Diseases Recommendation, 2002 (No. 194) (Geneva, 27–30 October 2009)” of the document entitled “Identification and recognition of occupational diseases: Criteria for incorporating diseases in the ILO list of occupational diseases” (MERLOD/2009/4) including the criteria in paragraph 34.
 - 18.** The Worker experts considered that in the preparation of future updates, the Office should take a proactive approach, looking into national lists and new occupational diseases. Basically they supported the decision-making process outlined in the abovementioned four paragraphs. Systematic reviews should be carried out by applying the principles embodied in this section. Furthermore, the Office should collect information from other organizations, such as the WHO and the International Agency for Research on Cancer (IARC), and share them in advance with the ILO tripartite experts.
 - 19.** The Employer experts considered the documents prepared by the Office were of good quality. The Office document on criteria (MERLOD/2009/4) was very helpful for the work of this Meeting and they proposed that this document should be published.
 - 20.** Dr Niu explained that, a first version of the document on the criteria had been prepared for the tripartite consultation which was conducted in 2008. This document on criteria was then updated as the process of consultation went on. It addressed two different issues which were: (i) the scientific evidence generally used for establishing a causal relationship between diseases and work; and (ii) the agreement reached during the various stages of the consultations conducted by the Office. If this document is to be published, a review would be necessary.
 - 21.** The representative of the ICOH underlined the importance of the ILO list for diagnostic purposes, as well as for prevention. The ILO’s work would require both a strong scientific basis as well as a policy umbrella. The concept of the list of occupational diseases would evolve with time and a faster and more dynamic process of updating would be needed. He offered the ICOH’s support by using its worldwide network in reviewing the list on a regular basis. Concrete steps would include: to monitor continuously the development of new occupational diseases through an expert group; to establish an international repository of new data; to produce international guidance on the identification, diagnosis and recognition of occupational diseases; and to develop criteria for those who are allowed to diagnose occupational diseases.
 - 22.** An Employer expert emphasized the significance of the work done after the 2005 Meeting, particularly the criteria for incorporating diseases into the ILO list. This document (MERLOD/2009/4) was developed jointly by experts representing the governments, employers and workers, and should become an official document which would guide future work. Having a single list for prevention and compensation purposes was a challenge. In one case, the approach was essentially medical, in the other case, a mix of medical, political and social factors were to be considered. The role of environmental factors needed to be addressed as regards both the working and general environment. A systematic approach should be taken in collecting the information on progress made worldwide, mobilizing various channels including other international organizations and member States.
 - 23.** The representative of the EC commented that there were several aspects involved in the list of occupational diseases. The establishment of a national list was a first step, and then diagnosis guides were to be developed. These would be required to be harmonized globally in a similar manner to the work done for the classification and labelling of chemicals through the development of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). He suggested that the European Agency for Safety and

Health at Work (EU-OSHA) could contribute to the work of the ILO through its data-collection work.

24. The representative of the WHO informed the Meeting of the adoption of a global action plan on workers' health by the 2007 World Health Assembly and underlined the importance of the work of this Meeting. He also reported the WHO work in progress on the international classification of diseases and its linkage with the list of occupational diseases. He expressed the WHO's commitment to work closely with the ILO in improving occupational health worldwide.
25. A Worker expert reminded the Meeting of the main task given to them. He highlighted the importance of the tripartite process in the current and future ILO work on the list. He welcomed the idea of continuous monitoring and information depository as long as these were linked with the tripartite Meetings of Experts. The development of international diagnostic criteria, such as for musculoskeletal disorders would be useful as systems are different from country to country. He supported the establishment of a panel of experts involving experts appointed by governments, workers and employers on occupational diseases which would work on the basis of criteria listed in section 8 of MERLOD/2009/4.
26. An Employer expert endorsed what the Worker expert said. More dynamic processes and efforts by the ILO would be required. A number of lists were developed by a number of people with different criteria. There was a need to clarify what criteria were used for the ILO list. In the interest of openness, the ILO should publish these criteria, namely the document MERLOD/2009/4, to show what was the basis for the new list.
27. The Meeting agreed that the criteria document "Identification and recognition of occupational diseases: Criteria for incorporating diseases in the ILO list of occupational diseases" should be published as an official ILO publication, to enable others to understand on what basis the list had been updated.

Examination of the problematic disease items

Point 1.2.5. "Diseases caused by radio frequency radiation"

28. The Employer experts did not support the inclusion of this item in the list as there was no conclusive scientific evidence, but acknowledged that a number of studies were under way. An in-depth French study reviewed relevant international reports on radio frequency radiation and concluded that there was no conclusive evidence that it caused diseases but thermal effects were recognized. In the study, cardiovascular effects were found but they lacked evidence on the causal relationship between exposure and effects.
29. The Worker experts suggested the use of the term "electromagnetic fields" or to add the term "microwave radiation". They considered that electromagnetic field effects should not be restricted to thermal effects and burning. There was evidence on reproductive health effects. Long-term effects such as carcinogenic effects should not be excluded either.
30. A representative of the WHO informed the Meeting of their project on electromagnetic fields (EMF). She explained that radio frequency included electromagnetic fields with frequencies ranging from 100 kilohertz (kHz) to 300 gigahertz (GHz), and this therefore included microwaves. The WHO EMF project found only thermal effects based on the exposure limits established by the International Commission on Non-Ionizing Radiation Protection (ICNIRP). While reproductive effects were found with high-level exposure, no

link had yet been established for cancer. At low-level exposure, no health effects were found. A major review by ICNIRP concluded that there was no established link between reproductive health and radio frequency radiation below the limits established by ICNIRP or by IEEE (Institute of Electrical and Electronics Engineers).

31. A Worker expert argued that many European countries included the effects of electromagnetic fields in their respective lists. Several clusters of workers, in particular radar workers, had reproductive health effects, especially on men, and these had been recognized and were compensable in his country.
32. The Government expert from Thailand stated that her country recognized diseases due to exposure to non-ionizing radiation which included radio frequency radiation.
33. The representative of the EC commented that some EU Member States included electromagnetic fields in their lists as the EU recommendation was not obligatory. The EC had established a scientific committee to review the effects of electromagnetic fields and the report was expected to be available in 2011.
34. A Government expert from China informed the Meeting that their study on radio frequency radiation did not show consistent evidence. He considered that further studies would be needed.
35. There was no consensus on this item and it was decided not to include diseases caused by radio frequency radiation in the list.

Point 1.3.7. "Malaria"

36. The Worker experts considered that malaria had a similar nature to other diseases included in section 1.3 and should be included in the list. Malaria was a major occupational hazard and not only was considered as an issue for workers travelling to affected areas and laboratory workers but also as one related to large working populations. Many workers in South America, Africa and Asia such as those in logging and construction camps were at high risk of infection to malaria. Adding it to the list would have immense impact on prevention.
37. An Employer expert stated that malaria is a public health issue except in the case where certain workers were sent to malaria endemic areas, or in the case of laboratory workers working with blood and blood products. It was not included in the European list. On the same ground, if it was included, other diseases could be included such as H1N1. Distinction of occupational and non-occupational cases was difficult. If malaria was to be included, criteria should be added. Nevertheless, malaria was covered under the item 1.3.10 (open item).
38. The representative of the EC concurred with the Employers' point of view, even though he understood the statistical significance of the disease. The inclusion of malaria would establish a precedent to cover a public health issue. The EU list did not include it.
39. The representative of the ICOH supported the Workers' view and suggested to find ways, such as a qualifier, to clarify the limitation to occupational exposure.
40. A Government expert from China explained a case of outbreak of malaria among the railway construction workers and supported its inclusion to those engaged in outdoor work in malaria endemic areas and laboratory workers.

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41. The Government expert from the Russian Federation could not support the inclusion of malaria in the list. While no malaria cases were found in the Russian Federation and outlying areas in 2008–09, it was difficult to clarify the place of infection when migrant workers were found to be infected with malaria, because most of the workers infected could not identify the place of infection.
 42. The Government expert from South Africa spoke in favour of the inclusion of malaria. This was important for truck drivers for example, who travelled outside the country and got infected. She suggested the addition of criteria.
 43. The Government expert from Thailand confirmed the importance of malaria in the south of her country and understood well the Workers' view. She explained that even though malaria was endemic in this region, there had been no claims for compensation. She still considered that the coverage of malaria was taken care of by item 1.3.10 (open item) and therefore was sufficient.
 44. Since no qualifiers were provided for clarification of the limitations to occupational exposure conditions as first suggested by the Government expert from South Africa, the experts did not agree on the inclusion of malaria in the list.

Point 2.1.8. “Extrinsic allergic alveolitis caused by the inhalation of organic dusts arising from work activities to include mists from contaminated oils”

45. The Worker experts emphasized that extrinsic allergic alveolitis was not only caused by organic dusts but also by contaminated oils.
46. An Employer expert stated that extrinsic allergic alveolitis was recognized as an occupational disease known as Farmers' lung for many years. As explained in the document MERLOD/2009/5, oils contaminated by bacteria, fungus and other biological agents could cause the disease. The proposed wording concerned only a particular industry while exposure to similar hazards could be foreseen in other sectors of activity. He proposed therefore the following generic wording “Extrinsic allergic alveolitis caused by the inhalation of organic dusts, or microbially contaminated aerosols, arising from work activities”.
47. This proposal was supported by both the Worker experts and Government experts, and therefore adopted. Extrinsic allergic alveolitis caused by the inhalation of organic dusts or microbially contaminated aerosols arising from work activities was decided to be included in the list.

Point 2.3.7. “Carpal tunnel syndrome due to extended periods of repetitive forceful work, work involving vibration, extreme postures of the wrist, or a combination of the three”

48. The Worker experts supported the inclusion of carpal tunnel syndrome in the list, as it was a recognized and well-known occupational disease. Furthermore diagnostic criteria were also available.
49. The Employer experts and Government experts also supported this inclusion. Carpal tunnel syndrome due to extended periods of repetitive forceful work, work involving vibration,

extreme postures of the wrist, or a combination of the three was decided to be included in the list.

Point 2.4. “Mental and behavioural disorders” to be replaced by “psychological disorders”

50. The Worker experts indicated that they agreed with the replacement since the term “Mental and behavioural disorders” caused confusion.
51. The Employer experts acknowledged their willingness to reach a consensus but stated that, after reassessing the current wording, they felt that the term “psychological disorders” was likely to create even more confusion. An advantage of using the term “mental and behavioural disorders” was that its definition could be taken from the DSM (Diagnostic and Statistical Manual of Mental Disorders)–IV. They noted that the term “psychological disorders” covered a very wide range of disorders and were willing to keep the original wording.
52. A Government expert from Chile underlined the need for respecting the International Classification of Diseases in order to benefit from their definitions. Therefore the introduction of new wording could not be supported.
53. A Worker expert could not agree to the use of DSM-IV as this would limit it only to mental disorders. He pointed out that the term “psychological disorders” had a wider meaning which included stress and depression. To use the term “mental disorders” in the list would narrow the scope.
54. A representative from the WHO drew the Meeting’s attention to the fact that clinical diagnosis was based on clinical entities, and the change of wording could create confusion among physicians and might lead to a negative impact on prevention. He suggested keeping the current wording.
55. The Worker experts maintained their view that “psychological disorders” were the appropriate wording. In view of the fact that both the Employer and Government experts agreed to keep the current wording “mental and behavioural disorders”, the Worker experts accepted that there was no consensus on the proposed replacement wording. Therefore, “mental and behavioural disorders” would not to be replaced by “psychological disorders” and would remain in the list without any change.

Point 3.1.20. “Formaldehyde”

56. The Employer experts considered that formaldehyde was ubiquitous. This was a difficult issue as shown in the technical background document (MERLOD/2009/5). Even though IARC had included formaldehyde as a carcinogen, the criteria used by IARC were not compatible with the criteria agreed upon by this Meeting of Experts. Furthermore the role of IARC was to identify hazards while a risk evaluation was needed to take a timely and appropriate decision. Thus, they believed it should not be included in the list. While IARC classification was considered important, they pointed out that other sources of information should also be examined.
57. The Worker experts stated that formaldehyde had been evaluated three times by IARC. The data presented by IARC on both humans and rats showed that formaldehyde was a group 1 carcinogen. The European furniture industry made a joint declaration of employers and workers on lowering exposure to protect workers and users. The declaration was based on the IARC assessment. Studies carried out in the United States and Denmark also

provided evidence for nasal cancer. A 33-year study, from 1970 to 2003, showed that specific professions, in this case, embalmers and funeral home workers, were significantly affected by cancer linked to exposure to formaldehyde.

58. The representative from the IARC informed the Meeting of the outcome of an IARC evaluation concluded the day before. This evaluation reconfirmed that formaldehyde was a group 1 human carcinogen with strong evidence on nasopharyngeal cancer and moderate evidence on leukaemia.
59. An Employer expert stated that they could not react on a verbal report on a study just completed, while acknowledging the study may provide useful information. The Employer expert emphasized that it would be necessary to examine relevant documents carefully before taking a position.
60. The Meeting did not reach consensus on the inclusion of formaldehyde under the section “Cancer caused by the following agents” and formaldehyde was not to be included in the list.

Point 3.1.21. “Hepatitis B virus (HBV) and hepatitis C virus (HCV)”

61. Employer experts preferred the addition of a qualifying clause which would refer to the presence of a hepatitis or of a cirrhosis. The Worker experts did not accept the addition of the qualifier. The Government experts agreed to include this item without qualifier. The Meeting decided to include hepatitis B virus and hepatitis C virus in the list by consensus.

Point 3.1.X. “Crystalline silica” under “3.1. Cancer caused by the following agents”

62. The Employer experts stated that they would only accept cancer caused by crystalline silica with a qualifier “in the presence of silicosis”.
63. The Worker experts strongly supported the inclusion of crystalline silica under the “Cancer caused by the following agents” section. Although silicosis was an important marker for exposure, silicosis should not be a precondition. They emphasized that in a large number of jurisdictions, silica was accepted as a carcinogen and that it was inappropriate to provide a diagnostic criteria in this context. The list was not about the diagnosis of individual cases.
64. The Government expert from the Russian Federation referred to the research in the Russian Federation which concluded that lung cancer could occur in the absence of silicosis. He underlined that enough expertise existed and each group could further examine the issue towards possible consensus.
65. The Employer experts maintained their position that silicosis was a precondition for crystalline silica to be included. They emphasized the importance of social connotations in examining the issue which was not only medical.
66. The Worker experts expressed their disappointment for not being able to reach a consensus to include crystalline silica in the list without a caveat.
67. The inclusion of crystalline silica under “3.1. Cancer caused by the following agents” was not accepted.

Discussion on the future work

Potential new occupational diseases

- 68.** A Worker expert suggested the production of silicon carbide as a cause of lung cancer. He proposed a review of the scientific basis for the next Meeting. Another Worker expert suggested PCBs to be included into the list of carcinogens. In Europe, PCBs were used in the construction industry during 1950–70. It was found to affect the environment as well as the health of construction workers since many workers were exposed to the agent when removing materials.
- 69.** The Government expert from the Russian Federation proposed to look into new technology including nanotechnology. According to research in the United States, United Kingdom and the Russian Federation, it could affect the environment as well as the health of workers. The agent could be absorbed through the surface of skin and may cause cancer and other diseases. There were many projects using nanotechnology with huge investment and worker protection may be necessary. A Government expert from China supported this proposal. He pointed out that there was a need for paying attention to new occupational hazards such as biological enzymes.
- 70.** The Government expert from France proposed to examine reproductive disorders caused by reproductive toxic substances, cancer of the larynx due to all forms of asbestos. Problems of shoulders, particularly the rotator cuff syndrome, which was one of the most prevalent musculoskeletal disorders, should also be looked into.
- 71.** The representative of the IARC supported these proposals which included asbestos-related cancer and PCBs as human carcinogen group 1. Furthermore he suggested the following items which were addressed in IARC's recent monographs:
- Vol 97: 1,3-butadiene.
 - Vol 99: o-Toluidine; MOCA (4,4'-Methylenebis(chloroaniline)), dyes metabolized to benzidine.
 - Vol 100c: asbestos and cancer of the larynx, leather dust (was previously boot and shoe manufacture).
 - Vol 100f: strong inorganic acids (was previously strong inorganic acids containing sulfuric acid); PCB 126.

Decision-making process

- 72.** A Worker expert underlined the usefulness of the documents prepared by the Office, particularly the technical background papers. He suggested the following process:
- submitting items for consideration two years before the next Meeting;
 - incorporation of suggestions and comments;
 - full literature review;
 - inclusion of scientific evidence into the technical background papers; and
 - consensus prior to the Meeting.

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73. He added that new information from IARC should be examined. He also requested the WHO to provide guidance on diagnosis and prevention of the diseases on the list and on national lists of occupational diseases.
74. An Employer expert stressed that the updating of the list of occupational diseases should be done by the ILO. It was not the responsibility of the IARC or WHO to prepare the list of occupational diseases. The scope of the list must be relevant to Recommendation No. 194. He stressed that the list should be revised by tripartite experts. In this connection more thought should be given to the organization of a duly established process for updating the list through social dialogue.
75. An Employer expert considered that the list should be a dynamic list and more regular meetings would be necessary. Working group discussions should be organized, possibly electronically, to avoid lengthy debate at the Meeting of Experts. The criteria for the current revision should be used. He proposed a cut-off date on the use of evidence and in addition the Office should produce background documentation.

Timing of further updating of the list

76. An Employer expert stated that constant review of relevant information was essential. Information from various sources should be collected and evaluated systematically. Working groups could communicate through the Internet preparing for the future debates.

Other activities by the ILO

77. The Worker experts believed that the development of guidance on diagnosis, prevention and application of the list should be a priority. The Employer experts supported this proposal made by the Workers.
78. Dr Niu, thanked the commitment of the tripartite group for the current and future work on updating the list of occupational diseases. The Office would follow up on the international developments. Careful consideration would be required on the decision-making process. The work of updating the list should be based on scientific evidence and expert tripartite consultations should be held regularly. The establishment of a panel of experts was a good proposal. As the only international organization to produce the list of occupational diseases, the ILO should continue to work on the list with its member States to promote the application of the list. The proposals for future work from this Meeting would be included in the report to the Governing Body.

Discussion and adoption of the list of occupational diseases and the report of the Meeting

79. The Reporter introduced the draft report of the Meeting. The Meeting first adopted the list of occupational diseases item by item, followed by the list as a whole.
80. The Chairperson informed the Meeting of the need to ensure the consistency between the English and French versions of the list, as it would be appended to a Recommendation. She explained that, for this to occur, an editorial group would have to be set up, and thus welcomed nomination from the Employer and Worker experts. The Employer experts nominated Dr Litchfield and the Worker experts nominated Mr Robertson. The editorial

group, which would work through electronic means, would be completed by the Chairperson and the Reporter, both Government experts.

- 81.** Mr Guido Raimondi, the ILO Legal Adviser, said that this would ensure the consistency between the normative text in the official languages of the instrument, namely English and French. As the list would replace the annex of Recommendation No. 194, the setting up of this group was a very welcome step. He would support the work of the editorial group by providing advice from a legal perspective when needed and appropriate.
- 82.** After examining the draft report paragraph by paragraph and its annex, “List of occupational diseases”, the experts adopted them, as amended. Thereafter the experts adopted the report and its annex as a whole.

30 October 2009.

(Signed): Ms Eva Anna Karpinski
Chairperson
Dr Rui Chen
Reporter

Annex

List of occupational diseases ¹

1. ***Occupational diseases caused by exposure to agents arising from work activities***

1.1. Diseases caused by chemical agents

- 1.1.1. Diseases caused by beryllium or its compounds
- 1.1.2. Diseases caused by cadmium or its compounds
- 1.1.3. Diseases caused by phosphorus or its compounds
- 1.1.4. Diseases caused by chromium or its compounds
- 1.1.5. Diseases caused by manganese or its compounds
- 1.1.6. Diseases caused by arsenic or its compounds
- 1.1.7. Diseases caused by mercury or its compounds
- 1.1.8. Diseases caused by lead or its compounds
- 1.1.9. Diseases caused by fluorine or its compounds
- 1.1.10. Diseases caused by carbon disulphide
- 1.1.11. Diseases caused by halogen derivatives of aliphatic or aromatic hydrocarbons
- 1.1.12. Diseases caused by benzene or its homologues
- 1.1.13. Diseases caused by nitro- and amino-derivatives of benzene or its homologues
- 1.1.14. Diseases caused by nitroglycerine or other nitric acid esters
- 1.1.15. Diseases caused by alcohols, glycols or ketones
- 1.1.16. Diseases caused by asphyxiants like carbon monoxide, hydrogen sulphide, hydrogen cyanide or its derivatives
- 1.1.17. Diseases caused by acrylonitrile
- 1.1.18. Diseases caused by oxides of nitrogen
- 1.1.19. Diseases caused by vanadium or its compounds
- 1.1.20. Diseases caused by antimony or its compounds
- 1.1.21. Diseases caused by hexane
- 1.1.22. Diseases caused by mineral acids
- 1.1.23. Diseases caused by pharmaceutical agents
- 1.1.24. Diseases caused by nickel or its compounds
- 1.1.25. Diseases caused by thallium or its compounds
- 1.1.26. Diseases caused by osmium or its compounds
- 1.1.27. Diseases caused by selenium or its compounds
- 1.1.28. Diseases caused by copper or its compounds
- 1.1.29. Diseases caused by platinum or its compounds

¹ In the application of this list the degree and type of exposure, the work or occupation involving a particular risk of exposure should be taken into account when appropriate.

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- 1.1.30. Diseases caused by tin or its compounds
 - 1.1.31. Diseases caused by zinc or its compounds
 - 1.1.32. Diseases caused by phosgene
 - 1.1.33. Diseases caused by corneal irritants like benzoquinone
 - 1.1.34. Diseases caused by ammonia
 - 1.1.35. Diseases caused by isocyanates
 - 1.1.36. Diseases caused by pesticides
 - 1.1.37. Diseases caused by sulphur oxides
 - 1.1.38. Diseases caused by organic solvents
 - 1.1.39. Diseases caused by latex or latex-containing products
 - 1.1.40. Diseases caused by chlorine
 - 1.1.41. Diseases caused by other chemical agents at work not mentioned in the preceding items where a direct link is established scientifically, or determined by methods appropriate to national conditions and practice, between the exposure to these chemical agents arising from work activities and the disease(s) contracted by the worker

1.2. Diseases caused by physical agents

- 1.2.1. Hearing impairment caused by noise
- 1.2.2. Diseases caused by vibration (disorders of muscles, tendons, bones, joints, peripheral blood vessels or peripheral nerves)
- 1.2.3. Diseases caused by compressed or decompressed air
- 1.2.4. Diseases caused by ionizing radiations
- 1.2.5. Diseases caused by optical (ultraviolet, visible light, infrared) radiations including laser
- 1.2.6. Diseases caused by exposure to extreme temperatures
- 1.2.7. Diseases caused by other physical agents at work not mentioned in the preceding items where a direct link is established scientifically, or determined by methods appropriate to national conditions and practice, between the exposure to these physical agents arising from work activities and the disease(s) contracted by the worker

1.3. Biological agents and infectious or parasitic diseases

- 1.3.1. Brucellosis
- 1.3.2. Hepatitis viruses
- 1.3.3. Human immunodeficiency virus (HIV)
- 1.3.4. Tetanus
- 1.3.5. Tuberculosis
- 1.3.6. Toxic or inflammatory syndromes associated with bacterial or fungal contaminants
- 1.3.7. Anthrax
- 1.3.8. Leptospirosis
- 1.3.9. Diseases caused by other biological agents at work not mentioned in the preceding items where a direct link is established scientifically, or determined by methods appropriate to national conditions and practice, between the exposure to these biological agents arising from work activities and the disease(s) contracted by the worker

2. Occupational diseases by target organ systems

2.1. Respiratory diseases

- 2.1.1. Pneumoconioses caused by fibrogenic mineral dust (silicosis, anthraco-silicosis, asbestosis)
- 2.1.2. Silicotuberculosis
- 2.1.3. Pneumoconioses caused by non-fibrogenic mineral dust
- 2.1.4. Siderosis
- 2.1.5. Bronchopulmonary diseases caused by hard-metal dust
- 2.1.6. Bronchopulmonary diseases caused by dust of cotton (byssinosis), flax, hemp, sisal or sugar cane (bagassosis)
- 2.1.7. Asthma caused by recognized sensitizing agents or irritants inherent to the work process
- 2.1.8. Extrinsic allergic alveolitis caused by the inhalation of organic dusts or microbially contaminated aerosols arising from work activities
- 2.1.9. Chronic obstructive pulmonary diseases caused by inhalation of coal dust, dust from stone quarries, wood dust, dust from cereals and agricultural work, dust in animal stables, dust from textiles, and paper dust arising from work activities
- 2.1.10. Diseases of the lung caused by aluminium
- 2.1.11. Upper airways disorders caused by recognized sensitizing agents or irritants inherent to the work process
- 2.1.12. Other respiratory diseases not mentioned in the preceding items where a direct link is established scientifically, or determined by methods appropriate to national conditions and practice, between the exposure to risk factors arising from work activities and the disease(s) contracted by the worker

2.2. Skin diseases

- 2.2.1. Allergic contact dermatoses and contact urticaria caused by other recognized allergy-provoking agents arising from work activities not included in other items
- 2.2.2. Irritant contact dermatoses caused by other recognized irritant agents arising from work activities not included in other items
- 2.2.3. Vitiligo caused by other recognized agents arising from work activities not included in other items
- 2.2.4. Other skin diseases caused by physical, chemical or biological agents at work not included under other items where a direct link is established scientifically, or determined by methods appropriate to national conditions and practice, between the exposure to risk factors arising from work activities and the skin disease(s) contracted by the worker

2.3. Musculoskeletal disorders

- 2.3.1. Radial styloid tenosynovitis due to repetitive movements, forceful exertions and extreme postures of the wrist
- 2.3.2. Chronic tenosynovitis of hand and wrist due to repetitive movements, forceful exertions and extreme postures of the wrist
- 2.3.3. Olecranon bursitis due to prolonged pressure of the elbow region
- 2.3.4. Prepatellar bursitis due to prolonged stay in kneeling position
- 2.3.5. Epicondylitis due to repetitive forceful work

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- 2.3.6. Meniscus lesions following extended periods of work in a kneeling or squatting position
 - 2.3.7. Carpal tunnel syndrome due to extended periods of repetitive forceful work, work involving vibration, extreme postures of the wrist, or a combination of the three
 - 2.3.8. Other musculoskeletal disorders not mentioned in the preceding items where a direct link is established scientifically, or determined by methods appropriate to national conditions and practice, between exposure to the risk factors arising from work activities and the musculoskeletal disorder(s) contracted by the worker

2.4. Mental and behavioural disorders

- 2.4.1. Post-traumatic stress disorder
- 2.4.2. Other mental or behavioural disorders not mentioned in the preceding item where a direct link is established scientifically, or determined by methods appropriate to national conditions and practice, between exposure to the risk factors arising from work activities and the mental and behavioural disorder(s) contracted by the worker

3. *Occupational cancer*

3.1. Cancer caused by the following agents

- 3.1.1. Asbestos
- 3.1.2. Benzidine and its salts
- 3.1.3. Bis-chloromethyl ether (BCME)
- 3.1.4. Chromium VI compounds
- 3.1.5. Coal tars, coal tar pitches or soots
- 3.1.6. Beta-naphthylamine
- 3.1.7. Vinyl chloride
- 3.1.8. Benzene
- 3.1.9. Toxic nitro- and amino-derivatives of benzene or its homologues
- 3.1.10. Ionizing radiations
- 3.1.11. Tar, pitch, bitumen, mineral oil, anthracene, or the compounds, products or residues of these substances
- 3.1.12. Coke oven emissions
- 3.1.13. Nickel compounds
- 3.1.14. Wood dust
- 3.1.15. Arsenic and its compounds
- 3.1.16. Beryllium and its compounds
- 3.1.17. Cadmium and its compounds
- 3.1.18. Erionite
- 3.1.19. Ethylene oxide
- 3.1.20. Hepatitis B virus (HBV) and C virus (HCV)
- 3.1.21. Cancers caused by other agents at work not mentioned in the preceding items where a direct link is established scientifically, or determined by methods appropriate to national conditions and practice, between exposure to these agents arising from work activities and the cancer(s) contracted by the worker

4. Other diseases

- 4.1. Miners' nystagmus
- 4.2. Other specific diseases caused by occupations or processes not mentioned in this list where a direct link is established scientifically, or determined by methods appropriate to national conditions and practice, between exposure arising from work activities and the disease(s) contracted by the worker

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