EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR ENERGY AND TRANSPORT

DIRECTORATE H - Nuclear Energy
Radiation Protection

Meeting of the Group of Experts (GoE) referred to in Article 31 of the Euratom Treaty

Luxembourg, 26 -27 November 2008

SUMMARY REPORT

(Approved by the Group of Experts at the meeting 9 – 11 June 2009)

1. APPROVAL OF THE AGENDA

The agenda was approved with the following addition. Under agenda item 12 *Other business*, an expert from Belgium will present information on the radiological incident at the Institut National des Radioéléments (IRE) in Fleurus, Belgium.

2. APPROVAL OF THE SUMMARY REPORT OF THE MEETING HELD IN LUXEMBOURG ON 11 – 12 JUNE 2008

The Summary Report was approved without amendments[1].

3. PROCEDURAL ASPECTS

3.1. Election of a new Vice-Chairperson for the period 2008 - 2010

According to Article 3 of the Rules of Procedure a new Vice-Chairperson has to be elected after three and a half years, which was due at this GoE meeting for the time period 2008 – 2010. The Secretariat informed the GoE on the candidates which were nominated by the experts.

The GoE elected the current Vice-Chairperson for the remaining time period 2008 – 2010. The Vice-Chairperson accepted the election and thanked the experts for their confidence.

3.2 Availability of the internet tool CIRCA for posting documents on the web

The Secretariat informed the GoE that the internet tool CIRCA is now available and is already used for posting documents on the web. The GoE welcomed this development.

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[1] The approved Summary Report of the June 2008 meeting can be found under http://ec.europa.eu/energy/nuclear/radiation_protection/article_31_en.htm

3.3. Publication of a list of members of the Article 31 Group of Experts in the European Commission's Register of Expert Groups

During the June 2008 meeting, the GoE took note of an initiative of the European Institutions to inform the public about the identity and qualification of experts advising the European Institutions. Since, each Expert informed the Secretariat about their explicit consent. A list of members of the Article 31 Group of Experts has subsequently been posted in the European Commission's Register of Expert Groups.

4. EXTENSION OF POST-CHERNOBYL REGULATION

The Commission presented a summary of the evolution of the Community legislation in place since the Chernobyl accident as regards the conditions governing imports of agricultural products originating in third countries and stressed the important role played by the Article 31 Group of Experts in the decision making process. It explained its decision to propose the extension for another period of ten years of the system for checking compliance with the maximum permitted levels of radioactivity in agricultural products laid down by Regulation (EC) No 733/2008 (codified version of Council Regulation (EEC) No 737/90) which will expire on 31 March 2010. The Commission indicated that its proposal was justified because the reasons that lay behind the adoption of Council Regulation 737/90 and its extensions remain valid. The radioactive contamination of certain agricultural products originating in the third countries most affected by the accident still exceeds the maximum permitted levels laid down in the 1990 Regulation. Furthermore, a number of products originating from species living and growing in natural and semi-natural areas may still present high levels of caesium-137 contamination and the reduction with time of these levels in these products essentially relates to the physical half-life of that radionuclide, which is 30 years. The Commission explained that this was confirmed in the framework of a study launched by the Commission on the potential imports by Member States of agricultural products containing radio-caesium concentrations in excess of EC limits. The Commission pointed out that on the basis of the results of the study, the *ad hoc* Committee set up under article 5 of Council Regulation 733/2008 (previous Article 7 of Regulation (EEC) No 737/90) concluded *inter alia* that an extension of the provisions of Council Regulation 737/90 for a minimum of ten years would be appropriate.

The Group of Experts was asked to confirm this point of view and a draft opinion prepared by the Secretariat has been circulated for this purpose to the Group. The Group of Experts discussed the issue and adopted a slightly modified opinion which can be found in Annex 1 to this Summary Report[2].

[2] The original of the Opinion can be found under http://ec.europa.eu/energy/nuclear/radiation_protection/article_31_en.htm

5. INFORMATION BY THE COMMISSION

5.1. Nuclear Safety

A representative of Unit H1 reported that on 26 November 2008 the Commission adopted a revised proposal for a Directive setting up a Community framework for nuclear safety. The new Directive defines binding basic obligations and general principles for the safety of nuclear installations in the EU while enhancing the role of national regulatory bodies. The general objective of the proposal is to achieve, maintain and continuously improve nuclear safety and its regulation in the Community and to enhance the role of the regulatory bodies. Its scope of application is the design, siting, construction, maintenance, operation and decommissioning of nuclear installations, for which consideration of safety is required under the legislative and regulatory framework of the Member State concerned. The right of each Member State to use nuclear energy or not in its energy mix is recognised and fully respected. The new Directive is firmly anchored in the subsidiary principle as it aims at enhancing the role of the national nuclear safety control bodies, their independence and resources in fulfilling their tasks.

The representative from Unit H1 explained that the proposal – which replaces and updates the one tabled in September 2004 – is based on the obligations of the Convention on Nuclear Safety (CNS) and the International Atomic Energy Agency (IAEA) Safety Fundamentals. It takes fully into account the issued opinion of the Article-31-Group which was established for the original draft text in 2004. The High Level Group on Nuclear Safety and Waste Management (ENSREG) will become the focal point of cooperation between regulators and will contribute to the continuous improvement of nuclear safety requirements, especially with respect to new reactors. The proposal foresees that the Commission shall present a report to the Council on progress made with the implementation of this Directive, accompanied, if appropriate, by legislative proposals.

The GoE noted this development and thanked the representative of Unit H1 for this information.

5.2. Radioactive Waste Management and Transport

A representative of Unit H2 gave an overview on radioactive waste and spent fuel management in the European Union, on public acceptance of nuclear energy within the EU and on the situation of uranium mine and mill tailings in Europe. The Commission Report - Sixth Situation Report on Radioactive Waste and Spent Fuel Management in the European Union provides information on policies, in particular with regard to waste disposal options, and practices in the Member States, including data on waste arising in the past, present and future. A special Eurobarometer study has been conducted in the beginning of 2008 to learn about public acceptance of nuclear energy within the EU. The study focused in particular on the dependence of the attitude towards nuclear energy on the availability of permanent and safe solutions for managing radioactive waste. The Commission Study on the situation concerning uranium mine and mill tailings in an enlarged EU provides an overview on 60 years of uranium mining and mill tailing in Europe, and the liabilities arising from these.

The GoE thanked the representative of Unit H2 for this informative overview.

6. REVISION OF THE EUROPEAN BASIC SAFETY STANDARDS

6.1. Progress reports from the Working Parties

Working Party on the Recast (WP RECAST)

The Chairperson of the Working Party on the Recast (WP RECAST) presented a report on progress with the revision of the current BSS Directive (96/29/Euratom) and the consolidation of existing European Radiation Protection legislation. Since the Article 31 Group of Experts' meeting in June 2008, the WP held two meetings, at which several titles (I, III, V, VI, VIII, and XI) were discussed in detail. Based on a proposal from the Working Party on Medical Exposure, the WP RECAST discussed Title VIII *Protection of Patients and other individuals Submitted to Medical Exposure* and confirmed that the draft text is already rather advanced. The issue of *Medico-legal Exposures,* however, remains to be clarified and it was decided to present the issue to the Article 31 Group of Experts already at this meeting for information and a first discussion. Furthermore, the WP RECAST discussed first drafts of Title V *Requirements for Education and Training* and Title XI *Emergency exposure situations,* recognising that both Titles still need additional drafting.

The WP RECAST decided that the core titles of the directive, Title I *Subject matter and scope,* Title III *System of protection* and Title VI *Justification and regulatory control of planned exposure situations* were sufficiently advanced to be presented to and discussed by the Article 31 Group of Experts.

The GoE welcomed the work performed by the WP RECAST, and appreciated the possibility to discuss draft directive text.

Discussion of draft directive text Title I Subject matter and scope, Title III System of protection and Title VI Justification and regulatory control of planned exposure situations

The Chairperson of the WP RECAST introduced the contents of each of the three core titles of the Directive. The GoE decided to discuss the proposal article by article focusing on general issues and comments rather than on detailed wording. The GoE was also invited to send more detailed or editorial comments on the three titles to the Secretariat for further consideration by the WP RECAST.

Title I defines the subject matter and general purpose of the Directive, and is a consolidation of five Directives. It uses ICRP 103 exposure situation terminology, and explicitly introduces consideration of exposure of biota in the environment as a whole.

Although the exposure of biota in the environment as a whole is mentioned in the first article defining the subject matter and general purpose of the Directive, the GoE proposed to add an explicit article defining the general principles of protection of the environment against the dangers arising from ionising radiation. The wording of such an article needs be consistent with corresponding requirements in the International BSS.

In addition, the GoE emphasised the importance of clear definitions and asked the WP RECAST to prepare a proposal for the next meeting of the GoE.

Title III specifies the system of protection: justification, optimisation, and dose limits are mentioned. Additional text is included on dose constraints and reference levels. Current requirements on dose limits for practices - now planned exposure situations – are included.

In his introduction of Title III, the chairperson of the WP RECAST drew the attention of the GoE to three main issues to be discussed.

- Shall the dose limit for occupational exposure be changed to 20 mSv/year?
- Does the dose limit for the lens of the eye need revision?
- Is the proposed introduction of the concepts of dose constraints and reference levels appropriate?

The GoE agreed to recommend a dose limit for occupational exposure of 20 mSv/year. In order to leave some flexibility for exceptional cases, there was a suggestion to introduce a concept of exceptional derogation from this limit which can be granted by the regulatory authority. The GoE asked the WP RECAST to develop appropriate text.

With regard to current discussions on the sensitivity of the lens of the eye, the GoE concluded that it would be wise to await the results from an ICRP task group working on a draft statement. In addition, the GoE recommended to introduce explicitly the optimisation principle and appropriate dose constraints also for organ doses.

The GoE offered comments on the proposed requirements for dose constraints and reference levels. Part of the requirements for reference levels are explanatory and could be moved to the definition. Finally, the GoE recommended revising the proposed Annex III.1 on bands of reference levels so that it is part of the requirements rather than giving examples in a tabular format.

Title VI covers requirements for justification and regulatory control of planned exposure situations. Title VI includes requirements for release from regulatory control, and introduces general clearance levels; flexibility is retained for Member States to decide on specific clearance levels. It is proposed to include a graded approach to regulatory control with reporting and authorisation being replaced by notification, registration, licensing. The Title comprises also a new approach to regulation of NORM industries (those on a positive list). These are now regarded as planned exposure situations, which can be exempted or are regulated applying a graded approach.

In discussion, various comments were made which will be forwarded to the WP RECAST for consideration.

In conclusion, the GoE endorsed in principle the draft text for the core titles of the Directive, Title I *Subject matter and scope*, Title III *System of protection* and Title VI *Justification and regulatory control of planned exposure situations*, and congratulated the WP RECAST for their good work.

Comparative Study of EC and IAEA Guidance on Exemption and Clearance Levels

In October 2006, the Working Party on Exemption and Clearance recommended introducing IAEA RS-G-1.7 values (for activity concentration) as exemption and

clearance levels. In order to analyse the differences between values derived for EC RP 122 and IAEA RS-G-1.7, and to assess the impact of lowering the exemption values for activity concentration to the clearance levels, it was decided to launch a *Comparative Study of EC and IAEA Guidance on Exemption and Clearance Levels*. Based on the draft final report provided by the contractor in July 2008, the Secretariat presented the preliminary outcome of this study.

The Group of Experts found the report comprehensive and extremely useful, in particular the part comparing the scenarios and assumptions leading to the values published in EC and IAEA guidance and explaining the differences. The GoE, however, did not necessarily agree with the report conclusion that water pathway scenarios for C-14 and I-129 are too conservative and need modification. The report contained also a comprehensive analysis of the impact of lowering the exemption values on a large variety of consumer goods. The GoE noted that the conclusions on consumer goods were not always supported by the facts and examples presented in the study. The GoE noted that some national systems have been built on exemption values for activity concentrations, and the proposed changes may have an impact on these systems. On the other hand, Member States are still free to keep the current values in their national systems. It was also noted that the draft directive text foresees now a graded approach to regulatory control, allowing not only for generic exemption but also for specific exemption after notification. One expert queried the level of international consensus around IAEA Safety Guide RS-G 1.7, and expressed the view that the proposed exemption values for natural occurring radionuclides may cause confusion.

The GoE concluded from this study that IAEA RS-G-1.7 values seem suitable for being used as clearance levels. However regarding the issue of replacing present activity concentration levels for exemption with IAEA RS-G-1.7 values, the experts requested the Secretariat to continue to follow the discussions in the revision process of the international Basic Safety Standards and to discuss it further with WP Recast.

Medico-legal exposures

A member of the WP MED presented a note on medico-legal procedures prepared originally for consideration by WP MED. The note proposes mainly to exclude medico-legal procedures from the definition of medical exposure and redefine them as public exposure, main consequences being that public dose limits, the principle of optimisation, including the introduction of appropriate dose constraints will apply. The Group of Experts generally supported the proposed redefinition of medico-legal procedures under non-medical (public) exposures but some concerns were voiced on a number of issues like the exact naming and definition of these situations, the application of general and individual justification, the use of public (vs. occupational vs. no) dose limits, etc. These issues were referred back to WP MED and WP RECAST, which should propose appropriate legislative provisions in the recast BSS.

The GoE recognised that some of the decisions about treatment of medico-legal procedures in the recast BSS need consulting people outside of the traditional radiation protection community, e.g. security specialists. The Commission-funded International Symposium on Medico-Legal Exposures, to be organised in Dublin in autumn 2009, was seen as an appropriate forum for doing so. Nevertheless, a general legal framework for those exposures should be prepared earlier for the first

consolidated version of the recast BSS (to be discussed by GoE in June 2009). More detailed guidance may be issued after the Dublin Symposium.

6.2 Progress reports from related studies and projects

Education and Training (EUTERP)

The status of the Commission financed project European Radiation Protection Training and Education Platform (EUTERP Platform) has been presented to the Article 31 GoE at the meeting in June 2008. The Secretariat informed the GoE that there has been no progress with the project since the presentation in June. This is particularly regrettable as EUTERP was expected to provide input for the education and training title of the revised Basic Safety Standards Directive.

The GoE noted this disappointing development and asked to be kept informed.

Evaluation of the Implementation of Radiation Protection Measures for Air Crew

End of 2006, the European Commission launched a study to evaluate the implementation of radiation protection measures for air crew in Europe. The objective of the study was to assess and evaluate the current operational implementation of Article 42 of Directive 96/29/Euratom in the EU Member States, the Candidate States, Norway and Switzerland. The Secretariat briefly summarised the outcome of the study which is now available.

The study confirms that current regulations in Article 42 of Directive 96/29/Euratom are sufficient to provide an appropriate level of radiological protection for air crew. Therefore, the current text of Article 42 can remain unchanged in the revision of the Euratom Basic Safety Standards. With the incorporation of the Outside Workers Directive 90/641/Euratom into the revised Euratom Basic Safety Standards, requirements for dose reporting and national dose registries may then apply also to freelance air crew. Furthermore, the study recommends developing guidance on criteria regarding the decision whether an airline has to introduce a radiation protection program for its aircrew, including procedures to determine compliance with the 1 mSv/year exemption criterion. In addition, the development of guidance on the application of dose limits and dose constraints for aircrew was considered useful.

The GoE welcomed the finalisation of this study and noted that the study confirms that current regulations in Directive 96/29/Euratom are sufficient to provide an appropriate level of radiological protection for air crew.

6.3 Publications of agreed reports on the EUROPA website

At the June 2008 meeting, the Secretariat proposed to publish topical reports prepared during the discussion process regarding the revision of the European Basic Safety Standards, after an appropriate quality control process, on the EUROPA website. The GoE was in favour of this initiative and asked the Secretariat to present relevant reports and an appropriate preamble explaining the objective of such a publication at the November 2008 meeting of the GoE.

The Secretariat briefly introduced a document containing the proposed new requirements related to natural radiation sources, to be posted on the EUROPA

website and the web-site of the European ALARA Network on Naturally Occurring Material (NORM). In addition, the Secretariat presented a preamble of the document which explains the status of the report and clearly states that the document reflects the views of the Commission and not necessarily the views of the Article 31 GoE.

The GoE acknowledged the plan to publish the document together with a slightly modified preamble on the web for public consultation.

6.4 Revision of the international Basic Safety Standards

The IAEA representative informed the meeting about the status of revision of the International Basic Safety Standards. The current draft 1.0 of the revised BSS was sent to the IAEA committees RASSC, WASSC, TRANSSC, NUSSC, and to the cosponsoring organisations (BSS secretariat) on 30 June 2008. Since its publication, more than 1200 comments were received from 21 Member States and 9 international and regional organisations, ranging from purely editorial points to substantive issues. The topical issues and comments were addressed by RASSC and WASSC during their meetings in November 2008. The IAEA together with the cosponsors are now incorporating the comments received. The process to proceed to draft 2.0 of revised BSS foresees two meetings of the BSS Secretariat, to be held in Vienna 14 – 16 January 2009 and 14 – 17 April 2009, supported by a series of drafting meetings scheduled for 2 – 5 February 2009, 16 – 20 February 2009, and 9 – 13 March 2009.

7. PRESENTATIONS FROM INTERNATIONAL ORGANISATIONS

7.1. ICRP

No representative of the International Commission on Radiological Protection (ICRP) could be present at the meeting.

7.2 IAEA

The representative from the International Atomic Energy Agency (IAEA) presented an update on selected IAEA activities in Radiation, Waste and Transport Safety. During the General Conference 2008 three round tables have been organised covering the topics *protection of patients*, *delay and denial of shipment of radioactive material*, and *upsurge of the uranium mining and production industry*. In addition, the IAEA representative reported on various initiatives in radiation protection in the medical area, including the announcement of the International Conference on Modern radiotherapy: challenges and advances in radiation protection which will be held in Paris 2 - 4 December 2009. With regard to radiation protection of workers, a new project to collect information on occupational exposure in medical, industrial and research applications, called Information System on Exposure in Medical-, Industrial- and Research (ISEMIR), has been launched. A new IAEA laboratory for individual monitoring, located within the Vienna International Centre (VIC) building has been inaugurated.

7.3 NEA

The representative from the Nuclear Energy Agency (NEA) presented the NEA Programme in Radiological Protection. The NEA Committee on Radiation Protection and Public Health (CRPPH) focuses increasingly on the application of the

radiation protection principles, in particular the principle of optimisation. One of the main work activities of the CRPPH is the Evolution of the System of Radiological Protection, which includes an ongoing dialogue between NEA and ICRP on new ICRP recommendations, as well as discussions on the implications of new ICRP recommendations on regulations. Consequently, the NEA engages in the revision of the International Basic Safety Standards and in discussions on emerging challenges in radiation protection. The CRPPH maintains its programme on Nuclear Emergency Planning and Management, including the planning for a new international nuclear emergency exercise series, INEX 4. Finally, the NEA is also actively involved in the area of occupational exposure management, in particular with the Information System on Occupational Exposure (ISOE).

7.4. IRPA

No representative of the International Radiation Protection Association (IRPA) could be present at the meeting.

8. REVIEW AND PRIORITISATION OF THE ACTIVITIES OF THE WORKING PARTIES AND RELATED PROJECTS

8.1. Medical Exposures (WP MED)

Progress report

The Vice-Chairperson of the Working Party on Medical Exposures (WP MED) reported on recent activities of the WP MED. In line with its priorities defined at the last meeting, the WP MED continued the discussion of the Title VIII *Protection of Patients and other individuals Submitted to Medical Exposure* of the recast Basic Safety Standards. A proposal from WP MED was submitted to the WP RECAST. Based on the discussions at the WP RECAST meeting in November and the discussions at this Article 31 GoE meeting, the WP MED will continue to work on the recast BSS with the aim to present a complete and consistent proposal to the GoE in June 2009.

In addition, the Vice-Chairperson of the WP MED summarised the status of on-going projects to assist Member States in the application and harmonisation of the medical Directive. The Secretariat informed the GoE that the *European Guidelines on Clinical Audit* are to be finalised soon and the prepared document is expected to be submitted to the Article 31 Group for approval at the June 2009 meeting.

Special concern was raised by one of the experts regarding the training of radiological technicians that needs to be reinforced. The Vice-Chairperson of the WP MED noted that this group of professionals is not clearly defined in the Euratom Directive 97/43 and they are also missing in the European Guidelines on Education and Training in Radiation Protection for Medical Exposures, Radiation Protection 116. The WP MED will discuss this issue at the next meeting, 1 – 2 April 2009.

The GoE noted the prolonged absence of the WP MED Chairperson for health reasons and congratulated the Vice-Chairperson for his successful management of the WP MED activities and his active participation in the WP RECAST so far. The GoE hoped that the Vice-Chairperson would continue his engagement in the WP RECAST. The GoE thanked the WP MED for their valuable work.

8.2. Research Implications on Health and Safety Standards (WP RIHSS)

Summary of the 2008 Scientific Seminar ***Emerging Evidence for radiation induced circulatory diseases***

The Chairperson of the WP RIHSS briefly summarised the results of the Scientific Seminar 2008 on ***Emerging evidence for radiation induced circulatory diseases***, which was held on 25 November 2008.

Seven scientists actively working in the field of radiation induced circulatory diseases presented current knowledge. They reported on evidence of such diseases among patients treated with radiotherapy, and on epidemiological evidence in the atomic bomb survivors, in radon exposed miners, and in nuclear industry workers in the UK and in the Russian facility Mayak. In addition, the status of ongoing research on biological mechanisms of radiation induced diseases was given. The presentations were followed by a round table discussion on ***Policy implications and research needs***, which was moderated by a member of the Article 31 Group of Experts. In the round table discussion, renowned experts in the areas oncology and cardiology, as well as representatives from a regulatory authority and from the European Trade Union Institute participated actively.

The conclusions of this Scientific Seminar can be summarised as follows. Although a lot of confounding factors have to be taken into account, epidemiological evidence is accumulating in favour of an increased risk of circulatory diseases for doses higher than 0.5 Gy. This evidence can be observed both after acute exposure and after protracted exposures. The effect is known in radiotherapy since years and there is growing concern. Research should help to define the critical target in the heart. There is ongoing research to explain the underlying biological mechanisms, which are still largely unknown.

With regard to policy and regulatory implications, the GoE acknowledged that there is a need to communicate and discuss the issue, in particular with the medical community but also with regulators. With a view to the current system of radiation protection, it may be prudent to introduce explicitly the optimisation principle and appropriate dose constraints also for organ doses.

The GoE congratulated the WP RIHSS for the organisation of this Scientific Seminar, and for the high quality of the presentations and the round table discussion. The GoE is looking forward to receive the draft proceedings of the seminar, including the conclusions and implications, for discussion at the June 2009 meeting, if possible.

Proposal of a topic for the EU Scientific Seminar 2009

The Chairperson of the WP RIHSS presented a selection of topics for the next scientific seminar, including *Childhood leukaemia – mechanisms and causes* and *Radiation induced cataracts.*

The GoE showed equal interest in both topics and decided finally to hold the EU Scientific Seminar 2009 on ***Childhood leukaemia – mechanisms and causes***. Recognising the importance of radiation induced cataracts and its potential implication on the revision of the basic safety standards, the GoE decided to ask the

WP RIHSS together with the WP Medical Exposures to review recent scientific findings and to prepare a report on new evidence.

9. CHILDHOOD CANCER IN THE VICINITY OF NUCLEAR POWER PLANTS

A specific task group of the German Radiation Protection Commission (Strahlenschutzkommission – SSK), comprising SSK-members and additional international experts in the field, has been established to evaluate the ***Epidemiological study on childhood cancer in the vicinity of nuclear power plants (Kinderkrebs in der Umgebung von Kernkraftwerken – KiKK-Studie).***

A member of the Article 31 Group of Experts summarised the findings of this evaluation which has been published on 9 October 2008 (in German)[3]. The expert emphasised that the evaluation was based on scientific aspects only. The SSK criticises in detail the design of the study, the inclusion of data originating from an existing (ecological) study, the misleading continuous evaluation of the data beyond the 5 km zone, the use of the place of residence at the time of diagnosis without identification of places of residence in the past not taking account of the latency period of leukaemia, the high fluctuation in population density, which was not taken into account, the missing identification of confounding factors (the parents of children living in the 5 km zone did often not return the questionnaires), and finally the missing determination of radiation exposure.

The SSK concluded that the design of the study exhibits numerous methodological weaknesses, in particular with regard to the missing determination of exposure and the missing identification of influencing and confounding factors. Consequently, the study should not have been carried out in the manner in which it was carried out. In spite of such weaknesses, the design of the study is suitable for the task of analysing dependence on distance. The study is **not** suitable to show a link between ionising radiation and the observed increase in childhood leukaemia in the vicinity of nuclear power plants. As the concentration of noble gases around nuclear power plants depends on the distance, an expert of article 31 group suggested to reconsider the dose concept as risk indicator for noble gases. The knowledge on causes and mechanisms of origin and development of leukaemia is too limited to explain the results of the study. The SSK therefore recommends focusing on interdisciplinary research, involving, among others, epidemiology, genetics, immunology, molecular biology, and radiation biology.

The GoE thanked the expert for this very interesting presentation and congratulated the SSK on this excellent evaluation of the study. Recognising the competence of the SSK in this area, the GoE recommended the European Commission to endorse the opinion of the SSK.

[3] The German Radiation Protection Commission (SSK) is working on an English translation of the report which is expected to be published by the end of the year. In addition, a scientific annex is in preparation and will be published soon (in German).

10. DEPLETED URANIUM

The *International coalition to ban uranium weapons (ICBUW)* prepared a document on recent scientific studies on the effect of depleted uranium, including a list of recent scientific publications in this field. The document refers to an Opinion of the Article 31 Group of Experts on Depleted Uranium[4], published in March 2001, and poses the question whether this opinion should not be reviewed based on the studies presented. The Secretariat has been asked by Members of the European Parliament to forward the ICBUW document to the Article 31 Group of Experts and to seek their advice.

Although the Group of Experts only had a very short time to examine the references in that document, the Experts felt, merely by the titles of the publications, that these relate exclusively to the chemical toxicity of Uranium, not to its radiological impact. Hence the Group would have no competence on such matters. One of the Experts offered to examine the references and to provide a summary report to the next Article 31 Group of Experts meeting in June 2009. It was also noted that, on 17 December 2008, a seminar on *Depleted Uranium Research: An Update* will be held in Rome. The outcome of this seminar will also be presented to the Article 31 Group of Experts at the June 2009 meeting.

Pending such further review, the GoE however confirmed that they had no information that there would be any new scientific evidence that would invalidate their earlier opinion on the health effects of depleted Uranium.

11. DEVELOPMENTS ON THE DRINKING WATER DIRECTIVE

The Secretariat informed the GoE about the status of adoption of the Euratom Directive on drinking water. The draft on which the GoE had given an opinion has gone into Inter Service Consultation. While the Legal Service made comments and proposed corrections which could be taken on board in a new draft, DG ENV issued a negative opinion. DG ENV will make itself a proposal for a revised Directive under EC Treaty provisions and the two proposals need to be coordinated. This controversy will either be resolved at the level of the Director Generals or in oral procedure in the Commission. If this process would cause an important delay, it may still be considered to include the provisions on drinking water in the recast Basic Safety Standards, under the heading "existing exposure situations".

12. OTHER BUSINESS

Radiological incident at the Institut National des Radioéléments (IRE) in Fleurus, Belgium

An expert from Belgium presented a brief overview of the radiological incident which happened on 22 August 2008 at the *Institut National des Radioéléments (National Institute of Radio Elements, IRE)* in Fleurus, Belgium. The main activity

[4] The Opinion of the Group of Experts established according to Article 31 of the Euratom Treaty on Depleted Uranium can be found under: http://ec.europa.eu/energy/nuclear/radiation_protection/doc/art31/2001_03_opinion_en.pdf

of IRE is the production of radioisotopes, mainly ^{131}I and ^{99}Mo for medical applications. On 22 August 2008, the transfer of acid liquid waste from small tanks to a larger tank lead to the release of ^{131}I, which due to a failure in the monitoring system for gaseous releases remain undetected until 24.08.2008 when the monitoring system was repaired. From 22 – 28 August 2008, a total of 48 GBq ^{131}I (T½: 8 days) was released through the stack. On the international nuclear event scale (INES), the incident was rated level 3. An emergency was declared because the assessment of the potential consequences showed that intervention levels for milk and vegetables could be exceeded up to a distance of few kilometres. Measurements in vegetables did not result in values exceeding the FAO/WHO recommendation of 100 Bq/kg.

The GoE thanked the expert from Belgium for this useful information.

Interpretation during meetings of the Article 31 Group of Experts

The GoE in its current composition agreed to hold future meetings in English only. No simultaneous interpretation will be provided. The next Group of Experts which will be constituted in 2010 may reconsider this decision.

13. DATE OF THE NEXT MEETINGS

The next meeting of the Group of Experts will be held **9 – 11 June 2009 in meeting room EUFO 0001, European Commission – Euroforum Building, 10, rue Robert Stumper – L-2557 Luxembourg – Gasperich**.

The autumn 2009 Group of Experts meeting is scheduled for **3 – 5 November 2009 in meeting room M6 at the Jean Monnet Building, rue Alcide de Gasperi – L-2920 Luxembourg-Kirchberg**. In conjunction with the Article 31 GoE meeting, the EU Scientific Seminar 2009 on ***Childhood leukaemia – mechanisms and causes*** will be held on 3 November 2008, starting at 13:30 and ending at about 18:00.

Depending on progress with the revision of the European Basic Safety Standards, an additional meeting of the Article 31 Group of Experts may be scheduled for **23 – 25 February 2010 in meeting room EUFO 0001, European Commission – Euroforum Building, 10, rue Robert Stumper – L-2557 Luxembourg – Gasperich**

ANNEX 1: OPINION OF THE GROUP OF EXPERTS UNDER ARTICLE 31 EURATOM TREATY ON THE EXTENSION OF THE POST-CHERNOBYL REGULATION

OPINION

Group of Experts under Article 31 of the Euratom Treaty

Subject: Extension of Council Regulation (EC) No 733/2008 (Codified version of Council Regulation (EEC) No 737/90)

The Commission proposes to extend for another period of ten years the provisions of Council Regulation (EC) No 733/2008 (Codified version of Council Regulation (EEC) No 737/90) on the conditions governing imports of agricultural products originating in third countries following the accident at the Chernobyl nuclear power station.

The Commission judges the extension to be justified by the fact that the reasons prevailing at the time Council Regulation (EEC) No 737/90 was adopted and extended twice remain valid; caesium-137 contamination of certain agricultural products originating in the third countries most affected by the Chernobyl accident may still exceed the maximum permitted levels laid down in the Regulation of 1990. A number of products originating from wild species living and growing in natural and semi-natural areas may present high levels of caesium-137 contamination and the reduction with time of these levels in these products essentially relates to the physical half-life of that radionuclide, which is 30 years.

The Group endorses the Commission's proposal for a prolongation of the Regulation and takes note of the Commission's statement that no changes in substance would be introduced.

Luxembourg, 26 November 2008

Kaare Ulbak,

Chairman of the Group of Experts