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NEA/SEN/SIN/WGHOF(2008)2

Organisation de Coopération et de Développement Économiques
Organisation for Economic Co-operation and Development

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English text only

NUCLEAR ENERGY AGENCY

**Committee on the Safety of Nuclear Installations
Working Group on Human and Organisational Factors**

SUMMARY RECORD OF THE FIFTH MEETING

Held in Uppsala, Sweden, on September 11 – 12, 2008

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SUMMARY RECORD

1. Opening of the Meeting. Presentation of the New Participants

The Chairman, Dr. Reiersen, opened the meeting by welcoming the participants and noting the importance of Item 6 of the Agenda, which was the Future WGHOF role, priorities and ways of working.

The WGHOF meeting participants introduced themselves and newcomers to the group were welcomed – G. Watts (Canada), R. Rehacek (who will act as the new NEA secretariat). A list of participants in the 5th WGHOF meeting is shown in Appendix 1.

2. Adoption of the Agenda [NEA/SEN/SIN/WGHOF/A(2008)2]

The as-proposed agenda (Appendix 2) was accepted.

3. Approval of Minutes of the last Meeting [NEA/SEN/SIN/WGHOF(2008)1]

The group reviewed the final version of the Summary Record from the 4th WGHOF meeting and accepted the last changes proposed by Ms. S. Jackson. The NEA secretariat will issue rev. 1 of the document NEA/SEN/SIN/WGHOF(2008)1. (*Action 5-1*)

4. Progress with Actions from previous meeting

The status of the 4th WGHOF meeting Actions was accepted as stated in Appendix 3. Most of the Actions were accomplished. The ongoing Actions formed the basis of the Agenda of the 5th meeting. The group asked the NEA secretariat to stay in touch with the WGRNR to follow how the Human Factors aspects related to new reactors are incorporated and considered in the WGRNR programme of work. (*Action 5-2*)

5. Brief report about NEA topics of interest to WGHOF, relevant CSNI and CNRA

The NEA secretariat informed the group about the personnel changes at the NEA. Mr. Uichiro Yoshimura replaced Mr. Takanori Tanaka as the Deputy Director - Safety and Regulation.

The NEA secretariat commented on the status of the documents prepared by WGHOF. The necessary measures will be taken to publish the TOP on Modification and Maintenance in English by the end of 2008. The proceedings of the Chester workshop on Safety Culture have now been published.

The last update of the group Integrated Plan was done in July 2008. The NEA secretariat in consultation with the Chairman will prepare the new update of the Integrated Plan taking into account the 5th WGHOF meeting results and provide it to the members by the end of December 2008. It was noted that the Plan should be a living document reflecting the Group's current and planned activities. (*Action 5-3*)

The Chairman provided detailed information to the group about his presentation on WGHOF activities at the last CSNI meeting. He also described his presentation at the last CNRA meeting on the same subject. The members of both Committees discussed the WGHOF work in detail and noted the importance of this area. CSNI asked WGHOF to prepare a thorough discussion on HOF future activities and ways to work for the next CSNI meeting in December 2008. CNRA stressed the need to have close cooperation and coordination with CNRA and its working groups.

6. Future WGHOF Role, Priorities and Ways of Working

There was a positive and open discussion about future WGHOF activities and ways of working. That discussion followed the Chairman's suggestion to the last CSNI meeting that the scope of work was potentially wide and that different ways of working may be needed to address the scope of potential activities, given WGHOF resource constraints. During the discussion the following aspects were raised:

- a. There is a growing demand for work in the group's subject areas. The main reasons for this are a greater awareness of the safety significance of organisational issues and the changing environment prompted by renewed interest in new builds.
- b. At the same time that the number of challenges is growing, the resources (financial and human) are shrinking.
- c. Not everybody is interested in everything. The new builds are for instance of high interest in some countries but not so much in others. Consequently, there may be a need for the group to carry out some tasks in parallel to address topics of concern to most members.
- d. Close connection and cooperation with the Halden project is a need and could be developed further. However, WGHOF must be aware that it cannot supplant the formal role of the HPG or cut across Halden member country interests.
- e. WGHOF provides a good forum for the exchange of information and topical concerns. This should not be underestimated, even though this regular exchange does not give rise to visible WGHOF task outputs.
- f. The group has produced good quality workshops and products. The group could inquire about the way in which these products have been used in the CSNI member countries.
- g. Many members supported the idea of identifying persons as "Topic Leaders" who could take responsibility for keeping the group up to speed in certain areas, and for overseeing Task proposals in their Topic Areas. This could help WGHOF to deal with more tasks in parallel. Some of the members were worried that this approach could keep them from full involvement in the group's work and it was agreed that there should be no standing subgroups.

The Chairman concluded the discussion summarizing it like this:

- It is sensible to maintain the integrity of the group.
- There is a need to draw in more relevant people from outside of WGHOF to participate in future tasks.

- There was broad support for identifying Topic Leads to help the group manage tasks across a wide range of HOF work in the future. This could help the group to deal more effectively with parallel activities.
- Closer links with Halden's work could be explored subject to the expectations of HPG and Halden member countries.

The Chairman will prepare a presentation to CSNI in December which summarises these discussions and WGHOF future work proposals. The presentation will be circulated in the group for comments in advance. (*Action 5-4*)

7. Workshop on Justification of Organisational Suitability: results and further steps to prepare the proceeding report, lesson learnt

The Chairman, the NEA secretariat and the entire group deeply appreciated the work involved in preparing and running the Workshop (held just before the WGHOF meeting) and thanked SSM organisers (Dr. P. O. Sanden and Mr. L. Axelsson) for their efforts.

It was agreed that Dr. Sanden in cooperation of the NEA secretariat will prepare the proceedings of the Workshop. The first draft of the document will be distributed to the group for comments by 15 December 2008. The deadline for comments is 31 January 2009. The goal is to have the proceedings ready for the CSNI meeting in June 2009. (*Action 5-5*)

8. HOF in Event and Root Cause Analysis: Clarification of concepts, the set of questions preparation and next steps

The next steps in the activity "Identifying and Overcoming Barriers to Effective Consideration of Human and Organizational Factors in Event Analysis and Root Cause Analysis" (RCA) were discussed, led by Ms. S. Jackson. The discussion included the general scope of the task; samples of question areas to answer; who should answer the questions; the schedule for the task and some other characteristics of this topic. It was agreed that:

- a. Ms. S. Jackson will prepare a questionnaire on the topic of "Identifying and Overcoming Barriers to Effective Consideration of Human and Organizational Factors in Event Analysis and Root Cause Analysis" and will circulate it through the NEA secretariat to the group at the beginning of October. The group members will review the set quickly enough to allow the final set to be sent out at the beginning of December. The responses should be returned to Ms. S. Jackson by 14 February 2009. (*Action 5-6*)
- b. Ms. S. Jackson will prepare a proposal on the topics to be discussed at the next WGHOF meeting. This includes the set-up of the specialists group, which will evaluate the results of the questionnaire and the areas on which the specialists group would focus on. (*Action 5-7*)
- c. The special meeting to complete this activity will be held in advance of the WGHOF meeting on 21 and 22 September 2009.
- d. The Chairman of the WGHOF will inform the WGOE about the RCA topic during their next meeting (November 2008) and the WGOE Chairman will be invited to join the planning group meeting prior to the March WGHOF meeting. (*Action 5-8*)

9. TOP on Future Control Station Designs and Human Performance Issues in Nuclear Power plants: new structure of the paper

A revised version of the TOP on “Future control station Designs and Human Performance Issues in NPPs” was circulated inside the group in advance of the meeting. The proposal was prepared by J. Persensky (lead) and other staff of the US NRC, a sub-group of WGHOF, and consultants from the US Department of Energy National Laboratories with the title “Research Program Topics on Human Performance in New Nuclear Plant Technology”. The group acknowledged the comprehensiveness of the proposal, but some rewording was required. The group considered that some of the commitments for WGHOF work were too extensive at this stage.

In addition to the TOP proposal there was another proposed CAPS on the same topic as a continuation of the activities proposed in the TOP. Again some modifications to the CAPS were agreed to by the group to ensure that the task proposal was practicable and achievable with WGHOF’s resources. The group agreed that:

- a. The working team led by Dr. V. Barnes (Dr. L. Norros, Ms. M. Kaarstad, Dr. J. Persensky) will recast the proposed drafts of TOP and CAPS on Research Program Topics on Human Performance in New Nuclear Plant Technology taking into account the results of the discussion during the 5th WGHOF meeting. The new proposals will be circulated to the group members through the NEA secretariat. The deadline for comments is 26 September, 2008. The objective is to have the documents ready to present to the PRG at the end of October. (*Action 5-9*)

10. Impact of Operating Procedures on Safety: update on preparation of the CAPS, and final decision about submittal to the CSNI

The CAPS on “Impact of Operating Procedures on Safety” was not discussed in the meeting as it has been kept on hold since the last CSNI meeting. The CAPS would be on the Agenda of the next WGHOF meeting depending on CSNI’s views on the future direction for WGHOF.

11. Organisational factors in the pre-operational phases of new Nuclear Power Plants: new CAPS preparation

Dr. N. Koivula informed WGHOF that a small Topic group will meet to discuss HOF issues associated with Organisational Factors in the Pre-operational phases of New Nuclear Power Plants. All interested WGHOF members are invited to participate in this meeting. They will identify a potential CAPS as appropriate with the aim of circulating it to the group by 14 February 2009 so that it can be discussed at the next WGHOF meeting. (*Action 5-10*)

12. WGHOF and WGOE, WGIP and WGRISK co-operation

HOF issues have been a crosscutting concern of more groups than just WGHOF, so that co-operation with other groups is requested by WGHOF and vice versa. The group discussed co-operation with WGOE, WGIP and WGRISK at the meeting with the following conclusions:

- a. WGOE will be informed about the CAPS on RCA and asked to participate (see point 8 above). The WGOE Chairman will also be invited to address WGHOF on WGOE activities in March 2009.

- b. The WGHOF Chairman will contact the WGIP Chairman to discuss the initiation of the CAPS for the follow up activity to last year's Workshop on "Maintaining oversight of licensee safety culture". (Provisionally, a CAPS is intended to propose a follow-up Workshop on the same Topic in 2010.) (*Action 5-11*)
- c. The WGRISK CAPS on "Simulator Studies for HRA Purposes" was reviewed by the group in advance of the WGHOF meeting. The group nominated Mr. W. Preischl to the steering committee for the Workshop as WGHOF's representative. The scope of the workshop was seen as important to cover HOF issues appropriately. Dr. L. Norros and Ms. M. Kaarstad will inform about the workshop at their institute and identify relevant persons who could participate in this workshop.

13. Significant Events - discussion about selected events and analysis techniques

A presentation on "Safety Management in a competitiveness context" was given by Mr. J. M. Rousseau, who informed the group about the results of the assessment carried out by the IRSN in 2007-2008, relative to the EdF safety management system. The study was driven in quest of finding answers to the three main questions; if is the priority given to safety, if is safety still meaningful to operators and if is EDF still able to maintain a "continuous improvement" of safety? The simplified answers then show, that the priority to safety is not very operational motto, safety is still sense-making for operators and rather than improvement of safety there is just sustentation at an acceptable level.

14. National, IAEA, HRP, EU news and Hot Potatoes.

Dr. K. Dahlgren started her presentation about IAEA activities by presenting the IAEA organisational chart and with information about the new document series published by the Department of Nuclear Energy called NE Series documents. The document series provides a clear structure of the different types of documents that are published by the Department of Nuclear Energy, starting from basic principles and objectives to guidelines and technical reports (thus similar in structure to the Safety Standards Series). The NE series documents are presented on the IAEA web with a clickable map to facilitate easy access (<http://www.iaea.org/OurWork/ST/NE>). A recent NE Series publication is "Establishing a Code of Ethics for Nuclear Operating Organizations" (NE Series No. NG-T-1.2). Dr. Dahlgren also presented the planned documents in the area of Management Systems. The newly produced training DVD on Management Systems based on GS-R-3 is retrievable on the web: <http://www-ns.iaea.org/home/nis.htm>.

Ms. M. Kaarstad informed that together with the 50th anniversary celebration of the Halden Reactor Project there was also the 25th anniversary of the HAMMLAB and the book commemorating this will be published in Fall 2008. A draft program plan has been written for 2009. She informed about some of the activities in the program. A workshop will be arranged in Halden in the "Integrated Systems Validation" project during the spring. Further, there will be an empirical test in HAMMLAB from January till April 2009 on the topics "Work practices in computer-based control rooms", which is focusing on a near future perspective on how computer-based systems may affect work practices in upgraded control rooms, and "Out-of-the-loop-performance", which has a more far future perspective, including aspects of advanced plants, such as advanced graphical design, staffing issues and automation. Next phase will depend on the 2009 findings and results.

A round table information exchange was carried out afterwards. The contributions follow in alphabetic order by country and the contributions of the several representatives of one country are stated together.

Belgium	Regulatory changes in Belgium continue, new technical support organisation is now operational (Bel V). It recruits people due to losses in transition period. An iodine release event at an isotope production facility was assessed as INES 3 and is still under investigation.
Canada	CNSC has been deeply involved in assessment of many projects including new sites, mines, refurbishment projects carried out and prepared and others. CNSC has been lessons learning from the last organisational change, when the organisation was change from the knowledge based to process based. NB Power is in the sixth out of eight months of the refurbishment project. The time has been used also to strengthen the organisation and staff team.
Czech Republic	A follow-up inspection on the licensee's top management is in progress. SUJB is about to issue a translation of IAEA TECDOC 1329. Czech Power Company CEZ has started a safety culture survey not only at both NPPs but also at non-nuclear plants.
Finland	STUK has been questioned by media if it has had enough competencies in connection with TVO 3 construction. The fluctuation of the workers at the construction side causes some problems. Finnish extensive nuclear program requires appropriate research program in which the core competencies are included.
France	ASN staff includes two human factors specialists for Basic nuclear installations (BNI) and one for medical field now. A 2-days training in HF, given by ASN HF specialists, is now mandatory for all ASN inspectors. Around 50 inspectors trained in 2008. HF was a priority topic for inspection of BNIs in 2006-2007. Outcomes are currently reviewed for preparing a global report. HF is still a topic for programmed inspections. Management of safety is inspected during the construction phase of EPR Flamanville 3 new reactor. Control has been done in central engineering services as well as at local level on the plant itself. In the medical field, ASN put in operation a new event scale for the events concerning patients. These events are mostly HF related.
Germany	GRS is focused on organisational issues implementation to PSA and maintenance of the digital I&C systems as it's going to be a problem. Attention is devoted to the events with the human factor involvement; such events should be "ever" notified.
IAEA	DS349- Application of the Management Systems for Nuclear Facilities" is expected to be published in February-March next year. "Safety report series XXX-Management Systems Standards: comparison between IAEA GS-R-3 and ISO9001:2000" is expected to be published in November this year. "Comparison between IAEA GS-R-3 and 50-C/SG-Q (Code)" will not be published but will exist as a working document.

<p>Spain</p>	<p>The CSN is almost to finish a Safety Instruction on Integrated Management Systems, mainly based on IAEA requirements of GS-R-3. A working group consisting of specialists of the CSN and of the Spanish nuclear installations was created at the beginning of 2008. The mandate of the group is to elaborate a generic guide on the contents and structure of the integrated management systems manuals by the end of 2008.</p> <p>Oversight of the assessment action plan presented by the licensee to the CSN after the event related to the uncontrolled release of solid radioactive particles in Ascó-1 NPP, notified in April 2008. It's also planned at the CSN a close follow-up of the improvement action plan to be presented by the licensee in December 2008.</p> <p>A third relevant activity related to HOF is the action plan that is being developed by the CSN in order to include the oversight of safety culture issues in the CSN Integrated Oversight System of NPPs, called SISC.</p> <p>The organisational change is going on in CNAT.</p>
<p>Sweden</p>	<p>On July 1st the new regulatory body Swedish Radiation Safety Authority (SSM) started its work. The new organization, the merger of Swedish Nuclear Power Inspectorate and Swedish Radiation Protection Institute, will be located together from September 15. Now most people in the new organization are positive to this, but everyone realizes that it will take a lot of work to decide on ways of working in the new authority.</p> <p>The work with Forsmark is going on. SSM is coming closer to the decision on its "special attention" - the increased oversight - of Forsmark that has been going on since the autumn of 2006. Not an easy decision to make, and the longer they wait the more difficult it gets.</p>
<p>Switzerland</p>	<p>HSK has developed a methodical tool to assess the decision making process. The organisational factors are in the work program of project group for new builds.</p>
<p>United Kingdom</p>	<p>NII guide on Nuclear Baseline content and function has been published recently.</p>
<p>United States of America</p>	<p>The NRC is currently revisiting its safety culture enhancements to the Reactor Oversight Process based on lessons learned after 18 months of implementation. Future changes may include a rewrite of the NRC's safety culture components and aspects and changes to some Inspection Manual Chapters and inspection procedures for greater clarity. In addition, the US nuclear industry has indicated that they are interested in developing a standardized safety culture assessment methodology they would apply when the NRC requests a licensee to conduct a safety culture assessment. The Commissioners have also directed the staff to develop a draft policy statement on safety culture that would address all NRC licensees.</p> <p>In the area of advanced reactors and computerized control rooms, the NRC is continuing research on the human performance impacts of degraded I&C, developing guidance for the review of the use human performance modeling in control room design, and developing interim staff review guidance for manual operator actions, computer-based procedures, and the minimum inventory of controls and displays that operators would have available in the event of a common-cause failures.</p>

15. Summary of WGHOF future activities and next meetings

The Chairman summarized the Actions accepted by the 5th WGHOF meeting. They are as follows.

Action 5-1 The NEA Secretariat will make the necessary changes in the Summary record of the 4th WGHOF Meeting [NEA/SEN/SIN/WGHOF(2008)1] accepted by the members of the WGHOF during the 5th WGHOF meeting and issue that document again as the revision 1.

Action 5-2 The NEA Secretariat will continue in contact with the WGRNR. Secretariat will follow and disseminating in the WGHOF how the Human Factors aspects related to new reactors are incorporated and considered in the WGRNR programme of work. (Action 4-3 continuing)

Action 5-3 The NEA secretariat in consultation with the Chairman will update the Integrated Plan and provide it to the members by the end of December 2008.

Action 5-4 The Chairman will prepare a presentation to CSNI in December which summarises the discussion results on future WGHOF role, priorities and ways of working and WGHOF future work proposals. The presentation will be circulated in the group for comments in advance.

Action 5-5 Dr. P. O. Sanden in cooperation of the NEA secretariat will prepare the draft of the proceedings of the Workshop "JUSTIFYING THE SUITABILITY OF NUCLEAR LICENSEE ORGANISATIONAL STRUCTURES, RESOURCES AND COMPETENCIES" by 15 December 2008. The deadline for comments is 31 January 2009. The goal is to have the proceedings ready for CSNI meeting June 2009.

Action 5-6 Ms. S. Jackson will prepare a questionnaire for the topic on "Identifying and Overcoming Barriers to Effective Consideration of Human and Organizational Factors in Event Analysis and Root Cause Analysis" (RCA) and will circulate it through the NEA secretariat to the group for comments at the beginning of October. The group members will review the set quickly enough to allow the final set to be sent at the beginning of December. The responses should be returned to Ms. S. Jackson by 14 February 2009.

Action 5-7 Ms. S. Jackson will prepare the proposal of the topics continuing for the next WGHOF meeting. This includes the set-up of the specialists group, which will evaluate the results of the questionnaire and areas on which the specialist group would focus on.

Action 5-8 The Chairman of the WGHOF will inform the WGOE about the RCA topic during their next meeting (November 2008) and the WGOE Chairman will be invited to join the planning group meeting prior to the March WGHOF meeting.

Action 5-9 The working team led by Dr. V. Barnes (L. Norros, M. Kaarstad, J. Persensky) will rewrite the proposed drafts of TOP and CAPS on Research Program Topics on Human Performance in New Nuclear Plant Technology taking into account the results of the discussion during the 5th WGHOF meeting. The new proposals will be circulated to the group members through NEA secretariat. The due time for the comments is 26 September, 2008 as latest. The objective is to have documents ready for the PRG at the end of October 2008.

Action 5-10 The small Topic group led by Dr. N. Koivula will meet to discuss HOF issues associated with Organisational Factors in the Pre-operational phases of New Nuclear Power Plants. They will identify a potential CAPS as appropriate with the aim of circulating it to the group by 14 February, 2009 so that it can be discussed at the next WGHOF meeting.

Action 5-11 The WGHOF Chairman will contact the WGIP Chairman to discuss the initiation of the CAPS for the follow up activity to last year's Workshop on "Maintaining oversight of licensee safety culture".

The next WGHOF meeting was scheduled for 19 – 20 March, 2009 (NEA headquarters). Two planning meetings on "Research Program Topics on Human Performance in New Nuclear Plant Technology" and "Identifying and Overcoming Barriers to Effective Consideration of Human and Organizational Factors in Event Analysis and Root Cause Analysis" will be held at the same premise a day before the Group meeting.

The dates were also determined for the Fall 2009 WGHOF meeting (23 – 24 September 2009, the place hasn't been fixed yet). The Fall meeting will be preceded by the two-day special meeting on "Identifying and Overcoming Barriers to Effective Consideration of Human and Organizational Factors in Event Analysis and Root Cause Analysis".

16. Closure of the Meeting

The Chairman stated that he thought it was timely for him to step down after the March 2009 WGHOF meeting, as the group should have agreed upon clearly identified ways of working, and clear direction from the CSNI after the December meeting. He informed the Group that there was therefore a need to consider candidates to take over this role.

The Chairman closed the meeting expressing the group's appreciation for the efficient and pleasant arrangements made by SSM (Swedish Radiation Safety Authority) and he thanked all participants for their active participation.

Appendix 1

List of Participants

BELGIUM

VAN DEN BERGHE, Yves
BEL V
Rue Walcourt 148
B-1070 Brussels

Tel: +32 2 528 0232
Fax: +32 2 528 0102
Eml: yves.vandenbergh@belv.be

CANADA

BOUCHARD, Andre
Canadian Nuclear Safety Commission
P.O. Box 1046 Station B
280 Slater Street
Ottawa, Ontario
K1P 5S9

Tel: +1 613 943 7675
Fax: +1 613 995 5086
Eml: andre.bouchard@cnsccsn.gc.ca

JACKSON, Suzanne
Canadian Nuclear Safety Commission
P.O. Box 1046 Station B
280 Slater Street
Ottawa, Ontario
K1P 5S9

Tel: +1 613 943 0003
Fax: +1 613 995 5086
Eml: suzanne.jackson@cnsccsn.gc.ca

WATTS, Germaine
NB Power Nuclear
P.O. Box 600
Lepreau, New Brunswick
E5J 2S6

Tel: +1 506 659 7858
Fax: +1 506 695 6675
Eml: gwatts@nbpower.com

CZECH REPUBLIC

MATEJKA, Karel
State Office for Nuclear Safety
Senovazne namesti 9
110 00 Prague 1

Tel: +420 221 624 771
Fax: +420 221 624 202
Eml: karel.matejka@sujb.cz

FINLAND

KOIVULA, Nina
Radiation and Nuclear Safety Authority
Laippatie 4
00881 Helsinki

Tel: +358 400 420 556
Fax: +358 9 759 88 382
Eml: nina.koivula@stuk.fi

NORROS, Leena
VTT Systems Research
P.O.Box 1000
FIN-02044 VTT

Tel: +358 20 7226551
Fax: +358 20 7226752
Eml: leena.norros@vtt.fi

FRANCE

PAPIN, Bernard
DEN/DER/SESI/LCFR
CEA CADARACHE
F-13108 St. PAUL LEZ DURANCE Cedex

Tel: +33 4 42 25 22 58
Fax: +33 4 42 25 24 08
Eml: bernard.papin@cea.fr

ROUSSEAU, Jean-Marie
Service d'Étude des facteurs humains
IRSN
BP 17
92262 Fontenay-aux-Roses cedex

Tel: +33 1 5835 7012
Fax: +33 1 5835 8840
Eml: jean-marie.rousseau@irsn.fr

TASSET, Daniel
ASN
Route du Panorama Robert Schuman
BP 83
92266 Fontenay-aux-Roses Cedex

Tel: +33 1 43 19 71 56
Fax: +33 1 43 19 70 89
Eml: daniel.tasset@asn.fr

GERMANY

PREISCHL, Wolfgang
Gesellschaft für Anlagen und-
Reaktorsicherheit (GRS) mbH
Forschungsgelände - P.O. Box 1228
D-85736 GARCHING

Tel: +49 89 3200 4481
Fax: +49 89 3200 4599
Eml: wolfgang.preischl@grs.de

SPAIN

DE LA CAL, César

Jefe de Garantía y Gestión de Calidad
Centrales Nucleares Almaraz Trillo A.I.E.
Avda. Manoteras 46
28050 Madrid

Tel: +34 619 175 393
Fax: +34 91 556 6520
Eml: ccl@cnat.es

GIL-MONTES, Benito

PSA & Human Factors Division
Consejo de Seguridad Nuclear
C/ Justo Dorado, 11
28040 Madrid

Tel: +34 91 3460 256
Fax: +34 91 3460 496
Eml: bgm@csn.es

SWEDEN

AXELSSON, Lars

Swedish Radiation Safety Authority
Stralsakerhetsmyndigheten
S-17116 STOCKHOLM

Tel: +46 8 799 4330
Fax: +46 8 799 4010
Eml: lars.axelsson@ssm.se

SANDEN, Per-Olof

Swedish Radiation Safety Authority
Stralsakerhetsmyndigheten
S-17116 STOCKHOLM

Tel: +46 8 799 4237
Fax: +46 8 799 4010
Eml: perolof.sanden@ssm.se

SWITZERLAND

HUMBEL, Claudia

Hauptabteilung
für die Sicherheit der Kernanlagen
Swiss Federal Nuclear Inspectorate
CH-5232 Villigen - HSK

Tel: +41 56 310 39 77
Fax: +41 56 310 3855
Eml: claudia.humbel@hsk.ch

UNITED KINGDOM

REIERSEN, Craig

Health & Safety Executive
NII, 4NG Redgrave Court
Merton Road
Bootle, Merseyside L20 7HS

Tel: +44 151 951 3650
Fax: +44 151 951 4100
Eml: craig.reiersen@hse.gsi.gov.uk

UNITED STATES OF AMERICA

BARNES, Valerie

Two White Flint North
11545 Rockville Pike
Rockville, MD 20852-2738

Tel: +1 301 415 6931
Fax: +1 301 415 5016
Eml: valerie.barnes@nrc.gov

CHOCKIE, Alan

Chockie Group International
18532 43rd ave NE
Seattle, WA 98155

Tel: +1 206 367 1908
Fax: +1 206 367 2205
Eml: chockie@chockiegroup.com

INTERNATIONAL ORGANISATIONS

International Atomic Energy Agency, Vienna, Austria

DAHLGREN PERSSON, Kerstin

IAEA International Atomic Energy Agency
Department of Nuclear Energy
Wagramer Strasse 5
P.O. Box 100
A-1400 Vienna

Tel: +43 1 2600 22504
Fax: +43 1 26007
Eml: k.e.dahlgren@iaea.org

KERHOAS, Anne

IAEA International Atomic Energy Agency
Department of Nuclear Energy
Wagramer strasse 5
P.O. Box 100
A-1400 Vienna

Tel: +43 1 2600 22656
Fax: +43 1 26007
Eml: a.kerhoas@iaea.org

European Commission, Petten, The Netherlands

MANNA, Giustino

European Commission
Joint Research Centre-Institute for Energy
Nuclear Operation Safety (NOS) Unit
Westerduinweg 3 - P.O. Box 2
Petten 1755 ZG

Tel: +31 224 56 5416
Fax: +31 224 56 5637
Eml: giustino.manna@jrc.nl

OECD Halden Reactor Project, Halden, Norway

KAARSTAD, Magnhild
OECD Halden Reactor Project
Institutt for Energiteknikk
P.O. Box 173
N-1751 Halden

Tel: +47 69 21 22 32
Fax: +47 69 21 24 60
Eml: magnhild@hrp.no

OECD Nuclear Energy Agency, Paris, France

REHACEK, Radomir
OECD-NEA / Nuclear Safety Division
Le Seine St-Germain
12 bd des Iles
F-92130 ISSY-LES-MOULINEAUX

Tel: +33 1 45 24 10 58
Fax: +33 1 45 24 11 29
Eml: radomir.rehacek@oecd.org

Appendix 2

AGENDA of the 5th WGHOF meeting

Opening:

1. Opening of the Meeting. Presentation of new participants.
2. Adoption of the Agenda [NEA/SEN/SIN/WGHOF/A(2008)2].
3. Approval of Minutes of the last Meeting [NEA/SEN/SIN/WGHOF(2008)1].
4. Progress with Actions from previous meeting.

NEA activities and recent meetings including brief situation report with selected WGHOF tasks:

5. Brief report about NEA topics of interest to WGHOF, relevant CSNI and CNRA. (NEA Secretariat / Dr. Reiersen, NII)
6. Future WGHOF Role, Priorities and Ways of Working. (Dr. Reiersen, NII / NEA Secretariat)

Detailed discussion about selected WGHOF tasks:

7. Workshop on Justification of Organisational Suitability: results and further steps to prepare the proceeding report, lesson learnt. (Mr. Sanden, SKI / Dr. Reiersen, NII / NEA Secretariat)
8. HOF in Event and Root Cause Analysis: Clarification of concepts, the set of questions preparation and next steps. (Ms. Jackson, CNSC)
9. TOP on Future Control Station Designs and Human Performance Issues in Nuclear Power plants: new structure of the paper. (Ms. Barnes, US NRC / Ms. Kaarstad, HRP / Dr. Norros, VTT)
10. Impact of Operating Procedures on Safety: update on preparation of the CAPS, and final decision about submittal to the CSNI. (Mr. Papin, CEA)
11. Organisational factors in the pre-operational phases of new Nuclear Power Plants: new CAPS preparation. (Dr. Koivula, STUK)
12. WGHOF and WGOE, WGIP and WGRISK co-operation. (Dr. Reiersen, NII / NEA Secretariat)

Information exchange:

13. Significant Events - discussion about selected events and analysis techniques.
 - J. M. Rousseau, IRSN – Safety Management in Competitiveness context
14. National, IAEA, HRP, EU news and Hot Potatoes.

Wrap-up and planning of future:

15. Summary of WGHOF future activities and next meetings. (Dr. Reiersen, NII and NEA Secretariat).
16. Closure of the Meeting.

Appendix 3

Status of the Main Actions Taken in the 4th WGHOF Meeting

Action 4-1 NEA Secretariat will circulate the WGRisk report on Outlining a Framework for HRA Information Exchange for comments. Members should direct their comments directly to Dr. Ving Dang (Leader, Risk and Human Reliability Group, Paul Scherrer Institute vinh.dang@psi.ch), with copy to NEA Secretariat.

Status: WGRisk report was circulated in the group. Mr. Preischl sent his comments to Dr. Winh Dang. Completed.

Action 4-2 The Chairman and the NEA Secretariat will update the WGHOF Integrated Plan incorporating any new activity.

Status: The chairman made up date, which was commented by Yves and NEA Secretariat. It would be discussed in the frame of Item 5.

Action 4-3 NEA Secretariat will convey a WGHOF message on the importance of incorporating Human Factors aspects and consideration related to new reactors in the WGRNR programme of work.

Status: Alejandro Huerta (NEA secretariat to WGRNR) conveyed WGHOF message to WGRNR. They will produce the database of the pre-operational experience where HF should be included. Completed.

Action 4-4 The Chairman, Dr. Leena Norros and Ms. Magnhild Kaarstad will review the document on Future Control Station (CS) Designs and Human Performance Issues in NPPs and will define a structure that takes into account the comments expressed. The new structure will be circulated to the group for comments. Once the structure is agreed, the different sections could be populated by the WGHOF September meeting.

Status: Drafts of the TOP together with the CAPS on Research Program on Human Performance in New Nuclear Plant Technology prepared by the US NRC (J. Persensky), and commented with the small work group, are ready for discussion at the meeting (Item 9).

Action 4-5 WGOHF members should encouraged their utilities/licensees to provide answers to the questionnaire on Approaches to Justification of Organisational Suitability by the end of April, 2008.

Status: There is/was about 20 responses from the utilities. Completed.

Action 4-6 WGHOF members will take a quick look and review to the TOP on Better Nuclear Power Plant Maintenance: Improving Human and Organisational Performance. Comments should be sent to Ms. Jackson with the aim to have a new version ready by the end of March. The objective is to have a version ready for the PRG at the middle of April.

Status: The TOP was approved by the last CSNI meeting. Completed. Publication in progress.

Action 4-7 NEA Secretariat to circulate to all WGHOF members the electronic file of the CAPS on Human and Organizational Factors in Event Analysis and Root Cause Analysis for comments with the aim to get the final version ready to be submitted to the PRG at its April, 2008 meeting. It was agreed to make a link in the CAPS to the need of cooperation and coordination with the WGOE.

Status: CAPS was agreed by the last CSNI. Completed. Task should continue. It is included in the Agenda of the 5th WGHOF meeting.

Action 4-8 WGHOF members will provide written comments by the end of March, 2008 on the CAPS on Methodology for setting the appropriate procedural guidance level in safety-significant operations. The aim is to get the final version ready to be submitted to the PRG at its April meeting.

Status: CAPS was finished (from this point of view it's completed), but not accepted by last CSNI due to unclarity about the future role of the group. It went "on ice". It is included in the Agenda of the 5th WGHOF meeting.

Action 4-9 Dr. Nina Koivula, Mr. Giustino Manna, Ms. Kerstin Dahlgren, Dr. Claudia Humbel Haag, and Ms. Valerie Barnes to come up with an outline CAPS for discussion at the next meeting on the needs to develop methods to ensure that current and future builds will be successful in terms of human and organisational factors. The initial version of the CAPS will be circulated to WGHOF by the end of May, 2008.

Status: It started but then the continuation was interrupted. It is in the Agenda of the 5th WGHOF meeting and members should discuss how to continue.