$\frac{C E R T I F I E D}{R. L. Seale, Chmn}$ December 5, 1997 CCRS - 3083

December 3, 1997

SUMMARY/MINUTES OF THE ACRS PLANNING AND PROCEDURES SUBCOMMITTEE MEETING DECEMBER 3, 1997

The ACRS Subcommittee on Planning and Procedures held a meeting on December 3, 1997, in Room 2B1, Two White Flint North Building, Rockville, Maryland. The purpose of the meeting was to discuss matters related to the conduct of ACRS business. The meeting was convened at 10:05 A.M. and adjourned at 12:10 P.M.

ATTENDEES

- R. L. Seale, Chairman
- D. A. Powers
- T. S. Kress

ACRS Staff

- J. T. Larkins, ACRS Executive Director
- M. El-Zeftawy
- C. Harris
- R. Summers
- G. Marcus
- J. Mitchell (EDO office)

1. FEDERAL REPORTS ELIMINATION ACT

The Federal Reports Elimination Act of 1997 was a bill introduced as S. 1364 on November 4, 1997. Although Senate action is anticipated before adjournment, it is unlikely the House will act on similar legislation. This bill would eliminate the requirement for the ACRS Report to Congress. The ACRS had originally asked that the Report to Congress be included in the list of Federal Reports to be Eliminated, but had subsequently requested that the ACRS Report NOT be eliminated. To ensure that this Report to Congress is not eliminated, we are preparing a memorandum to the Office of the General Counsel (OGC) stating that we do not want the Report to be dropped and giving an explanation for our change in position.

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RECOMMENDATION

The Subcommittee recommends that a letter to the Commission be drafted for Dr. Seale's signature, requesting withdrawal of the earlier ACRS request for elimination of the requirement for a Report to Congress on the NRC Research Program.

2. PREPARATION OF MEETING MINUTES

The procedures for the preparation of Subcommittee Meeting Minutes have been revised to reduce the burden on the ACRS Engineers (pp. 1-19). (A similar revision has been prepared for the ACNW staff.) The new procedures continue to meet the requirements of the Federal Advisory Committee Act and 10 CFR 7.13. The minutes will contain sufficient detail to allow a person absent from the meeting to readily understand the important issues discussed, the views of those participating in the meeting, and the important issues and concerns raised by Committee Members and consultants.

RECOMMENDATION

The Subcommittee recommends that Members review the new guidance on preparing Subcommittee Meeting Minutes and provide any comments to the Executive Director as soon as possible.

3. CONFLICT-OF-INTEREST

The ACRS Executive Director issued additional guidance to the staff on November 20, 1997, on handling of conflict-of-interest (COI) reviews for ACRS/ACNW Members (pp. 20-23). This was in response to a request from the staff for additional information on COI, as a result of an earlier meeting with representatives of OGC on this subject. Two Senior Staff Engineers have forwarded memoranda on COI issues to the ACRS/ACNW Executive Director that emphasize the need for ACRS Members to work through the ACRS staff on any matters related to or having a potential impact on Committee activities. Meetings with NRC staff or others not related to ACRS current or future activities should be scheduled so as not to interfere with or have an impact on Committee meetings. ACRS Members should also avoid being on peer review panels

on subjects related to ACRS current or future activities. Any questions related to these matters should be directed to the ACRS Chairman or ACRS Executive Director.

RECOMMENDATION

The Subcommittee recommends that Members be aware of the appearance of conflict of interest when they serve on peer review panels on subjects related to current or future ACRS activities. Generally, Members should attend such panels only as ACRS Members, not as invited experts for the NRC staff, and they should not give direction to the staff on issues that will later be reviewed by the ACRS. Members who serve on such panels, because of contractual requirements or other circumstances, are advised to announce this fact at the beginning of the ACRS review, indicate the exact parameters of their involvement in the material being presented to the ACRS for review, and recuse themselves from the review. Members are also reminded to go through the ACRS staff when arranging meetings with NRC staff or others on any matters related to or having an impact on ACRS activities.

4. NEW MEMBERS

The Commission has selected Dr. Graham Wallis as a new member for the ACRS, subject to the usual government paperwork.

Last month, the ACRS and ACRS Member Screening Panel interviewed a candidate in the plant operations field, and the response to these interviews was very positive. The ACRS staff has recently prepared a Federal Register Notice and Press Release for Commission approval to solicit new candidates in the area of Plant Operations and/or Probabilistic Risk Assessment. These advertisements should appear within the next month, and we should have some new candidates early in 1998. In the meantime, previous applications and recommendations are being reviewed to determine if there are individuals who should be reconsidered or have been overlooked.

5. INTERNATIONAL MEETINGS

We have written to the Japanese requesting that the Quadripartite Meeting be held in September 1998, rather than April 1998 (pp. 40-42). We have had no response. If the meeting is confirmed for September 1998, we will inquire about the possibility of meeting with the U.K. Advisory Committee on the Safety of Nuclear Installations in May or June 1998. To accommodate this foreign travel in the budget, no more than 6 or 7 ACRS members should attend the Quadripartite Meeting, and no more than half the Members should attend the meeting in England.

6. ACRS RETREAT

A revised agenda has been prepared for the ACRS Retreat, to be held on January 30-31, 1998 (See separate handout). Revisions have been made based on Members' comments. This agenda will be finalized during the December 3-6, 1997 meeting.

RECOMMENDATION

The Subcommittee recommends that Members review the draft agenda and provide any comments or changes to the Executive Director before the end of the December meeting.

7. ELECTION OF OFFICERS

Election of Officers will be held during the December 1997 meeting. The Bylaws regarding elections are attached (pp. 24-25). Those Members who indicated in writing that they did not wish to be elected as an Officer are: Dr. Shack, Dr. Fontana, Dr. Uhrig and Mr. Barton.

8. FINANCIAL DISCLOSURE REPORTS

You should have received a recently updated Financial Disclosure Report from OGC. Please review and report any errors or other problems (e.g., omissions, wrong titles, etc.) to Carol Harris or Dr. Larkins.

RECOMMENDATION

The Subcommittee recommends that each Member review the OGC

letters and report any errors to Carol Harris or Dr. Larkins.

9. HUMAN PERFORMANCE AND HUMAN RELIABILITY IMPLEMENTATION PLAN

A senior staff engineer provided a summary of a meeting between Dr. Apostolakis and members of the NRC staff to discuss development of the Human Performance and Human Reliability Implementation Plan. In the absence of a transcript or notice of a meeting on this subject, this summary has been provided to Members for their information (pp 26-39).

10. MEMBERS' ISSUES

No issues were brought up by members.

11. FUTURE ACTIVITIES

[See separate handout]



UNITED STATES NUCLEAR REGULATORY COMMISSION ADVISORY COMMITTEE ON REACTOR SAFEGUARDS WASHINGTON, D. C. 20555

November 21, 1997

MEMORANDUM TO:

ACRS Staff

ACNW Staff

FROM:

John T. Larkins, Executive Director

ACRS/ACNW

SUBJECT:

ACRS/ACNW MEETING MINUTES PROJECT

The attached report presents recommendations concerning the form and content of ACRS/ACNW Full Committee Minutes and ACRS Subcommittee and ACNW Working Group Minutes. The goal of this report is to reduce the amount of time spent on preparing these Minutes, while continuing to fulfill our legal requirements and capture the important points made in each meeting.

Please ensure that future Minutes reflect the guidance in this report. After we have gained some experience in implementing this guidance, we will reevaluate the procedures to determine if they can be further improved.

Attachments: As stated

ACRS/ACNW MEETING MINUTES PROJECT

ACRS Staff Representative: Doug Coe ACNW Staff Representative: Howard Larson

This project evolved from a determination by ACRS/ACNW management that the process of producing meeting minutes could be streamlined. Current Office guidance for writing detailed minutes was considered burdensome in that time was spent on this activity with minimal benefit to the Committees' missions.

PROJECT GOAL

Minimize the staff time spent on producing certified meeting minutes, consistent with legal requirements, to maximize staff time spent ensuring that the content, organization, timeliness, and accuracy of information provided to Members support the Committee's goal of providing quality advice to the Commission and its staff. The underlying assumption is that the Committees receive greater benefit from the "front-end" staff work (e.g., status reports and analysis) than from the "back-end" work such as meeting minutes.

PROJECT OBJECTIVE

Produce recommendations/guidance for staff engineers/scientists regarding the form and content of meeting minutes needed to accomplish the project goal.

PROCESS USED TO COMPLETE THE PROJECT

- Solicit input from all staff engineers/scientists
- Inform Committee Members and solicit input
- Review current requirements and guidance
- Analyze inputs and requirements against project goal
- 5. Formulate recommendations
- Solicit peer review from staff engineers/scientists
- 7. Present recommendations to ACRS/ACNW management for approval
- Present recommendations to ACRS and ACNW
- 9. Issue recommendations as guidance

SOLICITATION OF STAFF AND COMMITTEE INPUT

During the September 1994 ACNW meeting, attending Members gave their support to the concept of reducing the amount of detail in meeting minutes. During the October 1994 ACRS meeting the ACRS Chairman indicated support for this concept as well. Inputs from ACRS/ACNW staff engineer/scientist inputs were received prior to project start and again following distribution of a first draft, with several inputs received and incorporated into the second draft.

ANALYSIS

The FACA and 10 CFR 7.13 requirement for "detailed" minutes do not further define "detailed" with respect to any desired objective or target audience. The user needs for these meeting minutes are highly variable. They may range from an absent Committee Member who is very knowledgeable of the details in the topic area and only interested in significant changes to staff or industry positions, to a researcher or Committee Member who desires to obtain detailed background information. Since it is not possible to accurately anticipate all specific future user needs and to incorporate the right information in the minutes to satisfy these needs for all cases, a "level of detail" determination must be made on a case-by-case basis for each set of minutes. In the absence of a known need for a high level of detail, the following guidance should be applied.

ACRS Subcommittee and ACNW Working Group minutes

Subcommittee and working group meeting minutes must contain sufficient detail such that a person absent from the meeting would readily understand the important issues discussed and the related views of the principal persons/organizations involved. In addition, important concerns and issues raised by the subcommittee/working group members and consultants must be summarized. The writer may limit the detail to that of an executive level overview. Researchers who require specific points of discussion made by presenters or specific questions raised by individual Committee members can obtain these from either the presentation slides or the transcript, which is now available in electronic form and is keyword searchable for ease of utilization. The minutes should thus provide an executive overview of the topics and perspectives discussed, to aid further research using presentation slides or the transcript as needed.

A suggested format for subcommittee and working group meeting minutes is provided in the attachment. It is intended that this attachment be used as a template, for format consistency, by all staff engineers and scientists. It has been carefully worded to convey all information required by 10CFR7.13.

Full Committee meeting minutes

Full Committee meetings are almost always a series of short presentations, and the minutes are written as a compilation of separate sections for each. Presentation slides, handouts, and transcripts are available for those persons interested in further detail. Therefore the same

guidance as noted above applies to full Committee meeting minutes. In addition, the letters written as a product of full Committee meetings document Committee advice and need only be referenced in the full Committee minutes (i.e. should not be summarized or interpreted).

Transcripts are now provided on diskette for all ACRS/ACNW meetings, and the Committees' Commission briefings transcripts can be obtained from SECY. Thus, internal requests for transcripts from NRC staff persons can be easily accommodated via e-mail. Similar requests from the public may eventually be accommodated by ongoing information technology advances.

EXISTING REQUIREMENTS AND GUIDANCE

Federal Advisory Committees Act (FACA) - "Detailed minutes of each meeting of each advisory committee shall be kept and shall contain a record of the persons present, a complete and accurate description of matters discussed and conclusions reached, and copies of all reports received, issued, or approved by the advisory committee. The accuracy of all minutes shall be certified to by the chairman of the advisory committee."

10 CFR 7.13 Minutes of advisory committee meetings - "(a) Detailed minutes shall be kept of each NRC advisory committee meeting. The minutes shall include the following information:

The time, date, and place of the meeting; (1)

A list of the attendees at the meeting who are advisory committee members or (2) staff, agency employees, or members of the public who presented oral or written statements:

An estimate of the number of other members of the public who were present; (3)

The extent of public participation; and (4)

An accurate description of each matter discussed during the meeting and its (5) resolution, if any, by the committee.

The minutes of an NRC advisory committee meeting shall include a copy of each (b) report or other document received, issued, or approved by the committee in connection with the meeting. If it is impracticable to attach a document to the minutes, the minutes shall describe the document in sufficient detail to permit it to be identified readily."

Committee Bylaws, Section 9 (ACRS) and Section X (ACNW) -

These sections state that minutes must be kept, and provide instructions for routing. commenting, approving, and distributing the minutes. Although these bylaws require the cognizant Committee Member to certify the technical accuracy of the minutes, it is the policy of the ACRS/ACNW staff management that the engineer/scientist who drafts the minutes has the primary responsibility for ensuring the technical accuracy of the minutes.

PAST GUIDANCE (TO BE SUPERSEDED BY THIS DOCUMENT)

Memorandum from R. Fraley, dated September 21, 1992, Subj: PREPARATION OF ACRS SUBCOMMITTEE MINUTES

Memorandum from R. Major, dated November 14, 1991, Subj: GUIDANCE ON THE PREPARATION OF WORKING GROUP AND FULL COMMITTEE MEETING MINUTES

ATTACHMENT 1

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS (official subcommittee name) SUBCOMMITTEE MEETING MINUTES (date of meeting) ROCKVILLE, MARYLAND

INTRODUCTION [this section complies with 10 CFR 7.13(a)(1)]

The ACRS Subcommittee on (official subcommittee name) held a meeting on (date), in Room T-2B3, 11545 Rockville Pike, Rockville, Maryland. The purpose of this meeting was to discuss the (general purpose or topic of the meeting). The meeting was open (/closed) to public attendance with the exception of a portion which was closed for (discussion of proprietary information or other reason consistent with the FRN). Mr./Ms./Dr. (name) was the Designated Federal Official for this meeting. There (were/were no) written comments or requests for time to make oral statements received from members of the public. The meeting was convened by the Subcommittee Chairman at (time) a.m. on (date), recessed at (time) p.m., and reconvened at (time) a.m. and adjourned at (time) p.m. on (date).

ATTENDEES

[this section complies with 10 CFR 7.13(a)(2), (a)(3), and (a)(4)]

ACRS Members/ACRS Consultants:

[name ACRS members/consultants/invited experts in attendance]

Principal NRC Speakers:

[name principal NRC speakers] Example: Ms./Mr./Dr. (Name), Office

Principal industry speakers:

[name principal industry speakers] Example: Ms/Mr/Dr. (Name), Organization

Other speakers:

[name other principal speakers, if any]

[list any written comments, if any]

[Specify the number of public attendees other than those listed above per 10 CFR 7.13(a)(3), and if any member of this group participated in the meeting, make a statement regarding the extent of public participation per 10 CFR 7.13(a)(4)] Example:

There were approximately (number) other members of the public in attendance at this meeting. A list of those attendees who registered is available in the ACRS office files and will be made available upon request. [If members of the public, who are not listed above as speakers, participated by providing comments or other input to the Committee during the meeting, then per 10 CFR 7.13(a)(4) make a statement here such as: "During the meeting, (rumber) persons not listed as speakers above participated by providing oral comments to the Committee." Briefly summarize the comments below.]

OPENING REMARKS BY THE SUBCOMMITTEE CHAIRMAN

Mr./Ms./Dr. (Name), Subcommittee Chairman, convened the meeting and made the following opening remarks:

[Summarize any opening remarks such as the Chairman's perspective on issues to be discussed, meeting objectives, changes to the expected presentations that differ from the Federal Register Notice, and related past or future ACRS activities]

DISCUSSION OF AGENDA ITEMS [this section complies with CFR 7.13(*)(5)]

[Provide an accurate description of each matter discussed in the meeting, so that a person would be guided to the proper presentation slides or transcript if needed. The text should describe the actual topics discussed, regardless of the agenda or presentation slides. To the extent feasible, the order of items listed in the agenda should be followed. However, items could be combined if they are closely related. To improve clarity, use of selected slides from presenters' handouts is acceptable; refer reader to attachment].

Industry Presentations

Introduction (if any) - [Full name of the Speaker, Organization]
[Summarize, in paragraph or bullet form, the important points made]

Topic - [Full name of the Speaker, Organization]
Mr./Ms./Dr. [Last Name] discussed Topic 1. Important points by Mr./Ms./Dr. [Last Name] included the following:

Other points made by Mr/Ms/Dr. are included in the Attachment, pp... [Include selected slides provided by the presenter].

NRC Staff Presentation

Introduction (if any) - [Full name, Office]

Topic 1 - [Full name, Office]
Mr./Ms./Dr. (Last Name) discussed Topic 1. Important points made by Mr./Ms./Dr. (Last name) included the following:

[summarize, in paragraph or bullet form, the important points discussed]

ACRS Consultant/Invited Expert Presentation (if applicable) - Full name and Organization)

Mr/Ms/Dr. (Last name), ACRS Consultant/Invited Expert, discussed [include Subject matter discussed]. Important points made by Mr./Ms/Dr. included the following:

[summarize, in paragraph or bullet form, the important points discussed]

Topic (Closed) - (Mr./Ms./Dr. Full name and Organization), discussed proprietary information related to [include Subject matter]. Important points made by Mr./Ms. Dr. (Name) included:

[summarize, in paragraph or bullet form, the important points discussed do not disclose proprietary information if minutes cannot be written without disclosing proprietary information, then a supplement to the minutes must be written and labeled proprietary. If the proprietary information is included in a supplement to the minutes, it should be noted in the Introductory paragraph at the beginning of the minutes.]

SUBCOMMITTEE COMMENTS, CONCERNS AND RECOMMENDATIONS

[Briefly summarize, in paragraph or bullet form, any significant subcommittee criticisms, concerns, and recommendations made during the meeting, and their resolution.]

STAFF AND INDUSTRY COMMITMENTS

[Summarize, in paragraph or bullet form, commitments made by the staff and industry groups during the meeting.]

Example:

- The Subcommittee suggested that the staff provide clarification to (include specifics) to preclude misunderstanding or misinterpretation of its intent. The staff has agreed to do so.
- The Subcommittee suggested additional interaction between the staff and industry is needed to resolve the differences.
- The staff and the industry group have agreed.

NOTE: Items listed under this section should be followed up to ensure that the staff and the industry have done the things they have committed to during the meeting. If they did not do what they have committed, it should be brought to the attention of the members. Also, these items will be included in the Office Action Item Tracking System.

This will help to assess the contributions made by the ACRS to the regulatory process.

SUBCOMMITTEE DECISIONS

[Itemize any future plans to refer the matter to full Committee, hold additional meetings, etc.]

Example:

The Subcommittee plans to draft a letter for consideration by the full ACRS. The Subcommittee determined that no further meetings would be scheduled, but that the NRC staff and [list vendors, industry groups, etc.] would provide a presentation to the full Committee on the following topics identified by the Subcommittee:

[List the topics]

FOLLOW-UP ACTIONS

Representatives of the NRC staff and industry and their contractors agreed to respond to the following questions and provide additional information and documents:

[List the questions, requests for additional information on a specific topic, and request for specific documents]

BACKGROUND MATERIAL PROVIDED TO THE SUBCOMMITTEE PRIOR TO THIS MEETING

[this section complies with 10 CFR 7.13(b)] Example:

- Status report, memorandum from D. Coe to ABB-CE Advanced Designs Subcommittee, dated April 3, 1994.
- 2. CE-Standard Safety Analysis Report, System 80+, through Amendment U.
- 3. System 80+ Design Certification Material, December 31, 1993.
- 4. Final Safety Evaluation Report dated February 29, 1994
- Letter to D. Coe, ACRS, from C. Brinkman, ABB-CE, dated April 4, 1994, Subj: ABB-CE Responses to ACRS Questions on System 80+20.
- Consultant Report by Dr. J. Quintiere, An Assessment of Fire Barrier Standards and the Impact of Smoke Transport, March 1994

PRESENTATION SLIDES AND HANDOUTS PROVIDED DURING THE SUBCOMMITTEE

[this section complies with 10 CFR 7.13(b)] Example:

The presentation slides and non-proprietary handouts used during the meeting are attached (see attachment 2).

[Presentation slides and handouts will often be voluminous and can frequently be removed from the copy of the minutes sent to Members, except for those slides referenced in the minutes for clarity.]

NOTE: Additional details of this meeting can be obtained from a transcript of this meeting available in the NRC Public Document Room, 2120 L Street, N.W., Washington, D.C. 20006, (202) 634-3274, or can be purchased from Ann Riley & Associates, Ltd., (Court Reporters and Transcribers) 1250 I Street, NW, Suite 360, Washington, D.C. 20005 (202) 842-0034.

Attachments:

- 1. Selected Presentation Slides referred to in the body of these Minutes
- 2. Presentation Slides and Handout (Office File Copy Only)

ATTACHMENT 2

ADVISORY COMMITTEE ON NUCLEAR WASTE (official working group name) WORKING GROUP MEETING MINUTES (date of meeting) ROCKVILLE, MARYLAND

INTRODUCTION [this section complies with 10 CFR 7.13(a)(1)]

The ACNW Working Group on (official working group name) held a meeting on (date), in Room T-2B3, 11545 Rockville Pike, Rockville, Maryland. The purpose of this meeting was to discuss the (general purpose or topic of the meeting). The meeting was open (/closed) to public attendance with the exception of a portion which was closed for (discussion of proprietary information or other reason consistent with the FRN). Mr./Ms./Dr. (name) was the Designated Federal Official for this meeting. There (were/were no) written comments or requests for time to make oral statements received from members of the public. The meeting was convened by the Working Group Chairman at (time) a.m. on (date), recessed at (time) p.m., reconvened at (time) a.m. and adjourned at (time) p.m. on (date).

ATTENDEES

[this section complies with 10 CFR 7.13(a)(2), (a)(3), and (a)(4)]

ACNW Members/ACNW Consultants:

[name ACNW members/consultants/invited experts in attendance]

Principal NRC Speakers:

[name principal NRC speakers] Example: Ms/Mr/Dr. (Name), Office

Principal industry speakers:

[name principal industry speakers] Example: Ms/Mr/Dr. (Name), Organization

Other speakers:

[name other principal opeakers, if any]

[list any written comments, if any]

[Specify the number of public attendees other than those listed above per 10 CFR 7.13(a)(3), and if any member of this group participated in the meeting, make a statement regarding the extent of public participation per 10 CFR 7.13(a)(4)] Example:

There were approximately (number) other members of the public in attendance at this meeting. A listing of those attendees who registered is available in the ACNW office files and will be made available upon request. [If members of the public, who are not listed above as speakers, participated by providing comments or other input to the Committee during the meeting, then per 10 CFR 7.13(a)(4) make a statement here such as: "During the meeting, (number) persons not listed as speakers above participated by providing oral comments to the Committee." Briefly summarize the comments below.]

Other speakers: [name other principal speakers, if any]

[list any written comments, if any]

[Specify the number of public attendees other than those listed above per 10 CFR 7.13(a)(3), and if any member of this group participated in the meeting, make a statement regarding the extent of public participation per 10 CFR 7.13(a)(4)] Example:

There were approximately (number) other members of the public in attendance at this meeting. A listing of those attendees who registered is available in the ACNW office files and will be made available upon request. [If members of the public, who are not listed above as speakers, participated by providing comments or other input to the Committee during the meeting, then per 10 CFR 7.13(a)(4) make a statement here such as: "During the meeting, (number) persons not listed as speakers above participated by providing oral comments to the Committee." Briefly summarize the comments below.]

OPENING REMARKS BY THE WORKING GROUP CHAIRMAN

Mr./Ms/Dr. (Name), Working Group Chairman, convened the meeting and made the following opening remarks:

[Summarize any opening remarks such as the Chairman's perspective on issues to be discussed meeting objectives, changes to the expected presentations that differ from the

Federal Register Notice, and related past or future ACNW activities]

DISCUSSION OF AGENDA ITEMS [this section complies with CFR 7.13(a)(5)]

[Provide an accurate description of each matter discussed in the meeting, so that a person would be guided to the proper presentation slides or transcript if needed. This should describe the actual topics discussed, regardless of the agenda or presentation slides. To the extent feasible, the order of items listed in the agenda should be followed. However, items could be combined if they are closely related. To improve clarity, use of selected slides from presenters' handouts is acceptable; refer reader to attachment].

Industry Presentations

Introduction (if any) - [Full name of the Speaker, Organization]
[Summarize, in paragraph or bullet from, the important points made]

Topic - [Full name of the Speaker, Organization]
Mr./Ms./Dr. [Last Name] discussed Topic 1. Important points by Mr./Ms./Dr. [Last Name] included the following:

Other points made by Mr./Ms./Dr. are included in the Attachment, pp... [Include selected slides provided by the presenter].

NRC Staff Presentation

1

Introduction (if any) - [Full name, Office]

Topic 1 - [Full name, Office]
Mr./Ms./Dr. (Last Name) discussed Topic 1. Important points made by Mr./Ms./Dr. (Last name) included the following:

[summarize, in paragraph or bullet form, the important points discussed]

ACNW Consultant/Invited Expert Presentation (if applicable) - Full name and Organization)

Mr./Ms./Dr. (Last name), ACNW Consultant/Invited Expert, discussed [include Subject matter discussed]. Important points made by Mr./Ms./Dr. included the following:

[summarize, in paragraph or bullet form, the important points discussed]

Topic (Closed) - (Mr./Ms./Dr. Full name and Organization), discussed proprietary information related to [include Subject matter]. Important points made by Mr./Ms. Dr. (Name) included:

[summarize, in paragraph or bullet form, the important points discussed - do not disclose proprietary information - if minutes cannot be written without disclosing proprietary information, then a supplement to the minutes must be written and labeled proprietary. If the proprietary information is included in a supplement to the minutes, it should be noted in the Introductory paragraph at the beginning of the minutes.]

WORKING GROUP COMMENTS, CONCERNS, AND RECOMMENDATION

[Briefly summarize, in paragraph or bullet form, any significant working group criticisms, concerns, and recommendations made during the meeting, and their resolution.]

STAFF AND INDUSTRY COMMITMENTS

[Summarize, in paragraph or bullet form, commitments made by the staff and industry groups during the meeting.]

Example:

- The Working Group suggested that the staff provide clarification to (include specifics)
 to preclude misunderstanding or misinterpretation of its intent. The staff has agreed to
 do so.
- The Working Group suggested additional interaction between the staff and industry is needed to resolve the differences.
- The staff and the industry group have agreed.

NOTE: Items listed under this section should be followed up to ensure that the staff and the industry have done the things they have committed to during the meeting. If they did not do what they have committed, it should be brought to the attention of the members. Also, these items will be included in the Office Action Item Tracking System.

SUBCOMMITTEE DECISIONS

[Itemize any future plans to refer the matter to full Committee, hold additional meetings, etc.] Example:

The Working Group plans to draft a letter for consideration by the full ACNW. The Working Group determined that no further meetings would be scheduled, but that the NRC staff and [list other Government agencies, industry groups, etc.] would provide a presentation to the full Committee on the following topics identified by the Working Group:

This will help to assess the contributions made by the ACNW to the regulatory process.

FOLLOW-UP ACTIONS

Representatives of the NRC staff and industry and their contractors agreed to respond to the following questions and provide additional information and documents:

[List the questions, requests for additional information on a specific topic, and request for specific documents]

BACKGROUND MATERIAL PROVIDED TO THE WORKING GROUP PRIOR TO THIS MEETING

[this section complies with 10 CFR 7.13(b)] Example:

- 1. Status report, memorandum from H. Larson to Working Group Members, dated
- "Source Term Report". New York State Low-Level Radioactive Waste Siting Commission. November, 1993.
- "Storage of Low-Level Radioactive Waste in Michigan', Michigan Low-Level Radioactive Waste Authority. March. 1993.
- Assistance Available Through the National Low-Level Waste Management Program', DOE/LLW-68T. INEL/DOE, December 1992
- *1991 Massachusetts Low-Level Radioactive Waste Survey Report', The Massachusetts Low-Level Radioactive Waste Management Board, November 1992.

PRESENTATION SLIDES AND HANDOUTS PROVIDED DURING THIS MEETING

[this section complies with 10 CFR 7.13(b)] Example:

The presentation slides and non-proprietary handouts used during the meeting are attached (see attachment I).

[Presentation slides and handouts will often be voluminous and can frequently be removed from the copy of the minutes sent to Members, except for those slides referenced in the minutes for clarity.]

NOTE: Additional details of this meeting can be obtained from a transcript of this meeting available in the NRC Public Document Room, 2120 L Street. N.W., Washington, D.C. 20006, (202) 634-3274. or can be purchased from Ann Riley & Associates, Ltd., (Court Reporters and Transcribers) 1250 I Street, NW, Suite 300, Washington, D.C. 20005 (202) 842-0034.

Attachments:

- 1. Selected Presentation Slides referred to in the body of these Minutes
- 2. Presentation Slides and Handout Office File Copy Only-)



UNITED STATES NUCLEAR REGULATORY COMMISSION ADVISORY COMMITTEE ON REACTOR SAFEGUARDS ADVISORY COMMITTEE ON NUCLEAR WASTE WASHINGTON, D.C. 20665

OFFICE OF

November 20, 1997

MEMORANDUM TO:

ACRS Staff

ACNW Staff

FROM:

John T. Larkins, Executive Director

ACRS/ACNW

SUBJECT:

QUESTIONS REGARDING THE CONDUCT OF MEMBER

ACTIVITIES

I have attached guidance regarding frequently asked questions involving the conduct of member activities. I hope that this information will be helpful to you in the future in resolving any issues on this subject. If it would be beneficial, I would be willing to seet and discuss these issues and the need for more detailed guidance.

Attachment: As stated

FREQUENTLY ASKED OUESTIONS

- The primary source of information to be used by the ACRS/ACNW staff in determining the conflict of interest (COI) status of a particular ACRS/ACNW member is the "Conduct of Members Conflict of Interest" memorandum issued by John Larkins, which reflects the OGC determinations resulting from the OGC review of the members' financial disclosure statements. This memorandum will be updated as new and/or updated information is provided by OGC.
- It is the individual member's responsibility to identify changes in his/her COI status, and to abide by the restrictions on his/her participation in the ACRS/ACNW reviews. It is the responsibility of the ACRS/ACNW staff and OGC to provide assistance to the members in carrying out this responsibility.
- ACRS and ACNW staff should bring any new COI-related issues, not already identified in the latest "Conduct of Members Conflict of Interest" memorandum, to the attention of their Branch Chief. ACRS and ACNW staff having questions related to the COI matters should inform their Branch Chief and seek the guidance of the Deputy Executive Director (or in his/her absence, the Executive Director) as necessary in resolving such issues. When new COI issues arise, the Deputy Executive Director or the Executive Director will provide guidance as to that Member's participation in the ACRS/ACNW review of a particular matter. The Executive Director or the Deputy Executive Director will seek OGC advice, as needed.
- Substantive issues related to whether a member (or Committee consultant) can participate in the ACRS/ACNW review of a particular matter have been (and may continue to be) identified just prior to and during ACRS/ACNW meetings. When this occurs, the responsible staff member should inform his/her Branch Chief and, if necessary, seek guidance from the Deputy Executive Director or the Executive Director in resolving this issue. When the issue cannot be resolved prior to Committee discussion of the matter, the member (or consultant) shall take the conservative approach and recuse

himself/herself.

- A member is deemed to be in conflict with the ACRS/ACNW review of particular matters When these matters could directly and predictably affect his/her own financial interest, the financial interest of his/her employer, or the financial interest of an organization with which the member has a contract to do work. Waivers can be granted by the ACRS Chairman when the financial interest is judged to be sufficiently small. OGC will assist the Executive or Deputy Executive Director in preparing these waivers. Waivers for the ACRS Chairman need to be granted by the NRC Chairman. Waivers will be on file with the Conflict of Interest memo issued by the Executive Director and a copy will be made available to the Branch Chief.
- A member who has a contract with an organization and receives payment from that organization for work done under that contract is in conflict with the ACRS/ACNW review of any work performed by that organization. Waivers can be granted when the financial interest is judged to be sufficiently small. As an example, if a member has a contract with Company A, the member, absent a waiver, is in conflict with the ACRS/ACNW review of any work done by Company A.
- A member who works as a salaried employee on a contract that another organization has with his/her employer is only in conflict with the Committee review of the work done under that particular contract. The member is not in conflict with the Committee review of all work done by the sponsoring organization. As an example, if a member is employed by a University and works on a contract that the University has with Company A, the member has a conflict with the Committee review of only the work done under that contract.
- A member who has a direct financial interest in work performed under an NRC contract shall not participate in the ACRS/ACNW reviews of matters directly related to that work. The matters affected by this restriction will be determined for the particular NRC contract after consulting with OGC. Decisions will be documented with a note to file along with other COI information.

- A member should not participate in the ACRS/ACNW review of his/her own non ACRS/ACNW work. This does not prevent a member from using or discussing his/her own work in an ACRS/ACNW review as long as the member does not urge the adoption of his/her own work. In addition, it has been Committee practice not to reference members' non ACRS/ACNW work in Committee reports.
- before a Federal agency is affected by the number of 'legal' days that the member has worked as an SGE. A member who has worked for the NRC for more than 60 legal days within the preceding 365 days is barred from representing a party before the NRC. If the member's employment as an SGE exceeds 130 days, the member cannot represent a non-Federal party before any Federal agency. The Operations Support Branch will monitor the number of legal days a member has accumulated and inform the member when he/she approaches the limit. This does not affect the conduct of ACRS/ACNW meetings.
- Members, as Special Government Employees, are subject to the Department of Justice's interpretations of restrictions of the Emoluments Clause of the Constitution. Members (and the ACRS/ACNW staff) are prohibited from engaging in any employment with a foreign government or agency of that government. This ban extends to accepting reimbursement for most types of expenses associated with performing work. Some expenses incurred outside of the United States can be paid for by a foreign government.

7 ELECTION OF OFFICERS

- The Committee Chairman and Vice Chairman shall be elected to serve for one year, commencing on January 1 and ending on December 31 or until their successors are elected. Either or both may be reelected to serve no more than one additional consecutive one-year term. Either or both are subject to recall by a vote of two-thirds of the Committee members. Any motion for recall shall be made, seconded and discussed during one meeting, and voted upon at the next meeting.
- In the event the Chairman is unable or unavailable to carry out his duties for a limited period, the Vice Chairman shall act as Chairman. In the event the Vice Chairman is unable or unavailable to carry out his duties for a limited period, the Chairman may appoint another member to act as Vice Chairman. A "limited period" is generally considered to be two months or less.
- 7.3 The line of succession for Committee officers is Chairman, Vice Chairman, and Member-at-Large of the Planning and Procedures Subcommittee. If either of the first two is no longer available to continue to serve, those next in line will move up in the succession. A special election will then be held to fill the resulting vacancy, using the procedure described below.

7.4 Regular Elections

The Committee Chairman and Vice Chairman for the following year shall be elected during the last regularly scheduled meeting of each year.

The Chairman shall be elected by a numerical majority of the current membership using a secret ballot, with all members as candidates. A member may withdraw his name from consideration by written notice to the Executive Director, no later than two weeks before the scheduled election. A current Chairman in his second consecutive one-year term shall be ineligible. If no candidate receives a numerical majority on the first ballot, a second ballot shall be taken using the three candidates (or more in case of a tie) receiving the most votes on the first ballot. If needed, additional ballots shall be taken using the two candidates (or more in case of a tie) receiving the most votes on the first ballot. If needed, additional ballots shall be taken using the two candidates (or more in case of a tie) receiving the most votes on the previous ballot,

until one candidate is favored by a numerical majority of the current membership. If the Committee agrees that no agreement is possible at the meeting, a Chairman shall be chosen by lot from the most recent list of candidates.

Following the election of the Chairman, the Vice Chairman shall be elected using the same process.

Absentee votes naming one member for Chairman and one for Vice Chairman shall be accepted and applied to each respective ballot taken. If they name a member eliminated from consideration by the foregoing procedure, they shall be discarded.

Following election of the Chairman and Vice Chairman, the nomination and election of a Member-at-Large to fill the Vacancy on the ACRS Planning and Procedures Subcommittee will also occur. Nominations will be made from the floor by the Committee members.

7.5 Special Elections

In the event that a special election is required under the terms of 7.3, above, it shall be held at the earliest regularly scheduled meeting following the announced need to fill the position(s). The election shall be conducted in accordance with the terms of 7.4, above.



MUCLEAR REGULATORY COMMISSION ADVISORY COMMITTEE ON REACTOR SAFEGUARDS WASHINGTON, D. C. 20555

November 24, 1997

MEMORANDUM TO:

Planning and Procedures Subcommittee

FROM:

Noel Dudley

SUBJECT:

MEETING SUMMARY CONCERNING THE HUMAN PERFORMANCE AND HUMAN

RELIABILITY IMPLEMENTATION PLAN

Dr. Apostolakis met with approximately 10 representatives of RES. NRR. AEOD. and MNSS on November 13. 1997. to discuss development of the Human Performance and Human Reliability Implementation Plan. The meeting was not noticed or transcribed.

Dr. Apostolakis explained a possible top down approach for developing a strategic plan that focused on programs relevant to safety. He suggested the formulation of a performance model for normal operations and an other model for post-accident activities. The normal operations model would include the use of risk to determine importance of human performance, which leads to events or inhibits safety. A post-accident model, such as ATHEANA, would be used to understand events, provide a hierarchical structure, and assist in identifying areas that are not well understood.

Dr. Apostolakis proposed that projects be shown in boxes with arrows indicating interrelationships. He noted that the strategic plan should also be helpful in establishing priorities. Dr. Apostolakis stated that the overall objective of the strategic plan should be to determine the reason for NRC involvement in an activity, the objective of the activity, and how the objective would be met.

Mr. Wayne Hodges. RES. stated that the Implementation Plan involved several programs and different NRC Offices working on activities for preventing events. Dr. Jay Persensky stated that the staff had used models and techniques as described by Dr. Apostolakis, but had not been able to effectively communicate the planning process. He provided a set of slides depicting the staff efforts [attachment 1].

Dr. Apostolakis served a facilitator as the staff developed a top down model [attachment 2]. They discussed the use of risk and uncertainty for prioritizing items and the agenda for the next Human Factors Subcommittee meeting.

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Attachments: 1. Information Packet Provided by the staff
2. Planning Model Developed During Meeting on the White Board

cc w/o atts. via E-mail:

J. Larkins

G. Marcus

ACRS Fellows and Staff

From:

. .

George Apostolakis <apostola@MIT.EDU>

To: Date: TWD2.TWP0(JJP2) 10/28/97 4:15pm

Subject:

MEETING

Jay:

The ACRS subcommittee meeting is now scheduled for Nov. 12 (all day) and 13 (through noon). I propose that our meeting (originally scheduled for Nov. 13) be rescheduled for Thursday, Nov. 13, at 1:30pm.

A preliminary thought that I have is that perhaps we ought to formulate the objectives of the human prerformance program plan as (1) optimization of human prerformance during normal operations (with emphasis on preventing actions that lead to initiating evants (IEs) or disable safety functions), and (2) assurance of satisfactory response during emergencies (after an IE).

At the next level, we should ask two questions: (a) What has operational experience taught us regarding these two objectives? and (b) What are the theoretical models telling us regarding these two objectives?

It seems to me that following this line of thought we will be able to develop a structure that will allow us to define what the HPPP should include.

I think that it will be useful to our meeting if someone from your staff collected the major insights that operational experience has produced. You have seen Pate's discussion of several incidents. The NRC has a much more extensive data base. What have we learned regarding human performance during normal operations and emergencies? From simulators?

These thoughts are very preliminary but thuy can get us started.

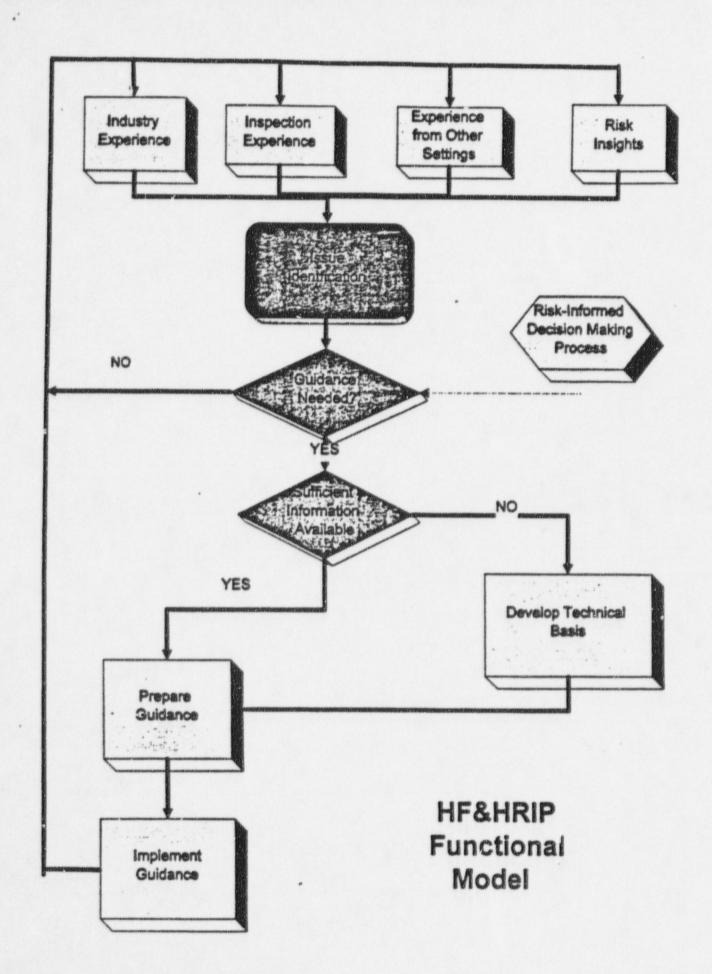
George.

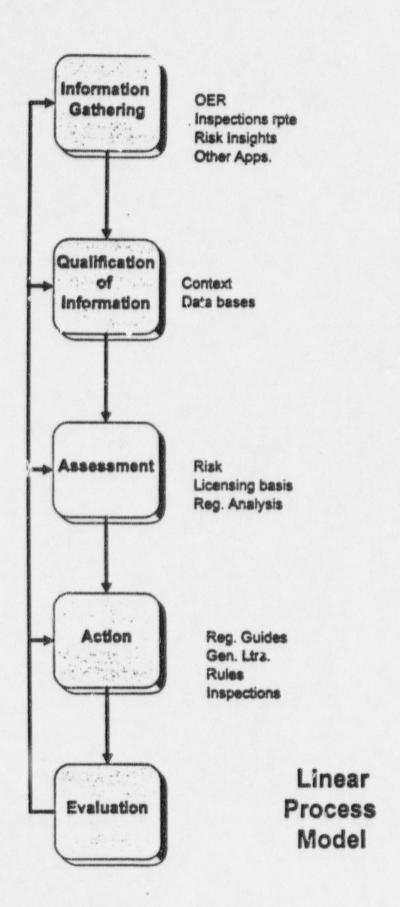
Prof. George Apostolakis
Department of Nuclear Engineering, Rm. 24-221
Mas-achusetts Institute of Technology
77 Massachusetts Avenue
Cambridge, MA 02139-4307, USA

e-mail: apostola@mit.edu tel: +1-617-252-1570 fax: +1-617-258-8863

CC:

TWD1.TWP2(NFD)





distinction is usually made between open-loop systems and closed-loop systems. This distinction is made on the basis of the nature of the system's feedback mechanisms. Closed-loop systems perform some process which requires continuous control and feedback for error correction. Feedback mechanisms exist which provide continuous information regarding the difference between the actual and desired state of the system. In contrast, open-loop systems do not use feedback for continuous control. When these types of systems are activated, no further control is executed. However, feedback can be used to improve future operations of the system (Sanders and McCormick, 1993). The distinction between open- and closed-loop systems is important as they require different design strategies.

Systems are also distinguished according to their service orientation. In this regard, there are mission-oriented and service-oriented systems. In mission-oriented systems, the needs of the personnel are subordinated to the goals of the system. Military and production systems are examples of this type of system. Service-oriented systems exist to meet the needs of clients or users. A governmental agency is an example of this system. In reality, most systems contain components of both types of systems. It is important to understand the service orientation of a particular system because this will have an impact on the degree to which personnel needs and desires may be considered relative to system demands (Meister, 1989).

We are also able to describe different classes of systems. For example, we can distinguish, at a very general level, between educational systems, production systems, mainlenance systems and health care systems, transportation systems, communication systems, and military systems. Within each of these systems we can also identify subsystems, such as the social system or the technical system. Complex systems generally contain a number of subsystems. Finally we are able to distinguish systems according to components or elements. For example, we can distinguish among machine systems, human systems (biological systems), and human-machine systems. It is the latter type of system which is of interest to human factors engineers.

2.2.3 Human-Machine Systems

A human-machine system is some combination of humans and machines which interact to achieve the goals of a system. These systems are characterized by elements which interact, structure, goals, conversion processes, inputs, and outputs. Further, they exist in an environment and have internal and external boundaries. A simple model of a burnan-machine system is presented in Figure 2.2. As shown in Figure 2.2, the general systems model applies to human-machine systems; inputs are received and processed, and outputs are produced through the interaction of the system components. We can conceptualize Figure 2.2 as a model of a human-computer system where the human is

ENVIRONMENT

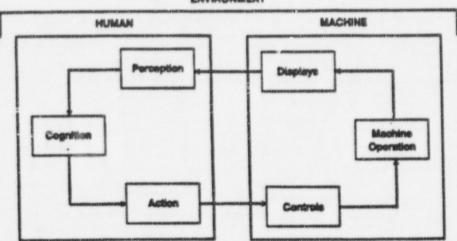


Figure 2.2 A simple model of human-machine system (adapted from Proctor and Van Zandt, 1994, Copyright © 1994, Allyn and Bacon. Reprinted by permission).

CHAPTER 1 INTRODUCTION TO SYSTEMS DESIGN AND HUMAN ENGINEERING ANALYSES

"We have to design equipment to take full advantage of the capabilities of our personnel and we have to design equipment that will not overload, confuse or degrade personnel performance in achieving mission objectives ... We have to reduce design-induced human error which is so costly a component of accidents and operational failures. We have to plan for the wise and judicious use of the limited personnel and skill levels available to us by cotimizing manpower requirements, and through more effective use of automation and expert systems. We have to design with greater efficiency and productivity in order to reduce costs to our services and to our nations."

Rear Admiral R. Horne, USN, 1990

1.1 INTRODUCTION

1. For a long time, humans have manufactured devices, equipment, and systems which permit the accomplishment of activities, whether work or combat, to satisfy increasingly demanding and complex objectives with increasing effectiveness and reliability. Up to the end of the 19th century, almost all manufactured items were made to measure by craftsmen who tailored the product to the user. The development of industrialization and the mass production of objects has forced manufacturers to make identical items for effective use by a large number of individuals. Today, the achievement of a specific objective often requires the efforts of several groups of individuals using several complex machines, some automatic, in a formal organization. Today, it is not possible to manufacture complex objects such as weapons without considering them as systems, defined as "the ensemble of elements capable of achieving a goal or a mission with autocomy" (Dictionnaire Robert).

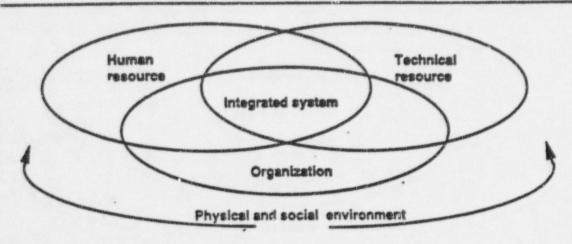


Figure 1.1: Three interacting sets of system resources

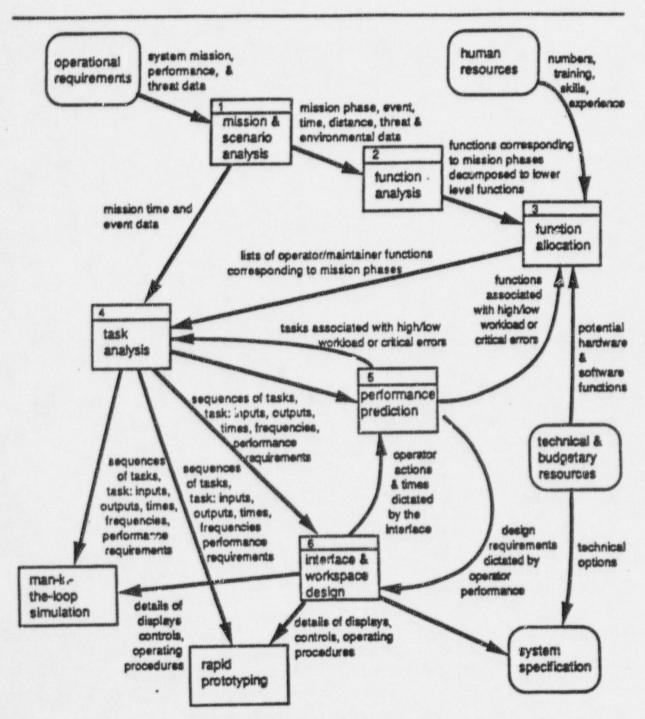


Figure 2.9: Flow of information generated by the six stages of human engineering analysis

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the effects of automation on human behaviour it is necessary to have a basic model of human performance. In addition we also need a basic model of how the overall sociotechnical system behaves and responds to changes. Functional models can be used to study these effects, since they explicitly describe functions and tasks of the plant and the operator. This also provides a systematic classification with which to describe the set of possible technological changes as a complement to the operator model.

From the perspective of cognitive systems engineering, the changes invariably address basic cognitive functions which can be described in a number of ways. The simplest one is a binary distinction between the analytical and synthetic parts of an action. The analytical parts are those in which information is collected and the situation is identified and assessed, corresponding to the gathering and processing of input that leads up to the choice or decision. The synthetic parts are those in which the response (action or set of actions) is produced or constructed, corresponding to the selection of an appropriate mode of responding as well as the actual scheduling and carrying out of the actions.

It has been customary to use models of human information processing as the basis for depicting and analysing human performance. Such models are basically "near or sequential models, although they sometimes may be presented as pseudo-hierarchies of processes. Although sequential information processing models have many advantages, they are limited because they depict human action basically as a response to something that happens - events, signals, disturbances, etc. A considerable part of human activity is carried out in anticipation of something that may happen in the next five minutes, in a month, or even in a year. The sequential information processing models nominally recognize the coupling between actions and events, i.e., the feedback from actions to new information, but this feature does not occupy the central role that it really deserves. In order to account fully for that it is necessary to use a type of model that explicitly accounts for the coupling between past and future events, and which is therefore better suited to capturing the dynamic characteristics of human behaviour. The classical version of a cyclical model is the perceptual circle proposed by Neisser (1976), shown in a modified form in Figure 4.

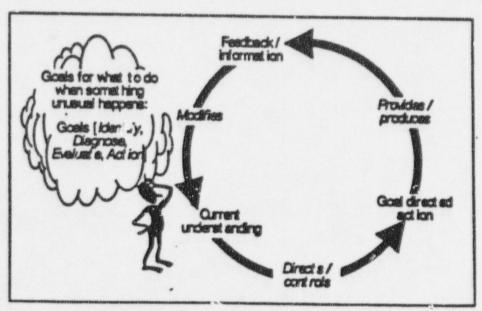


Figure 4: The perceptual circle (after Neisser, 1976).

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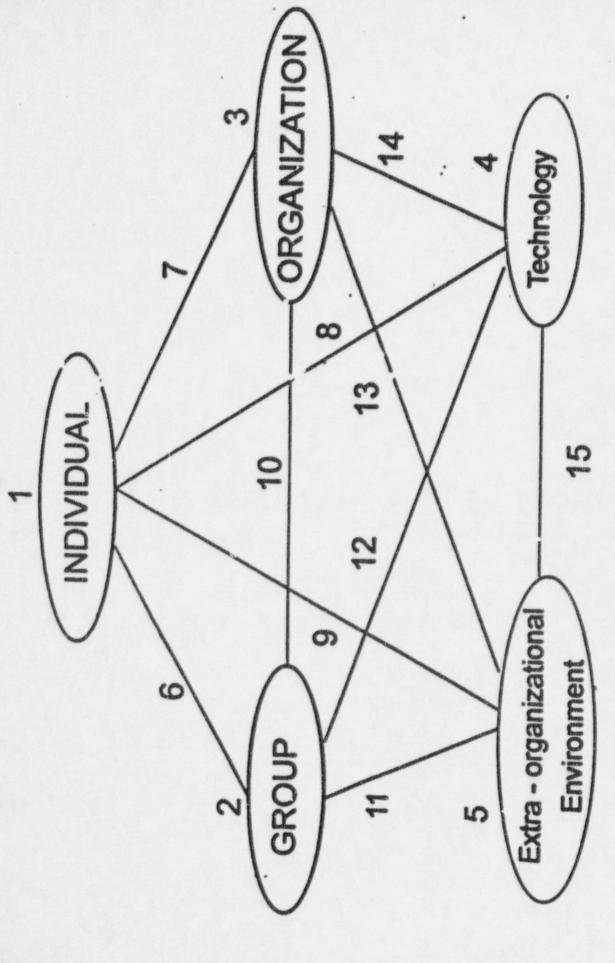
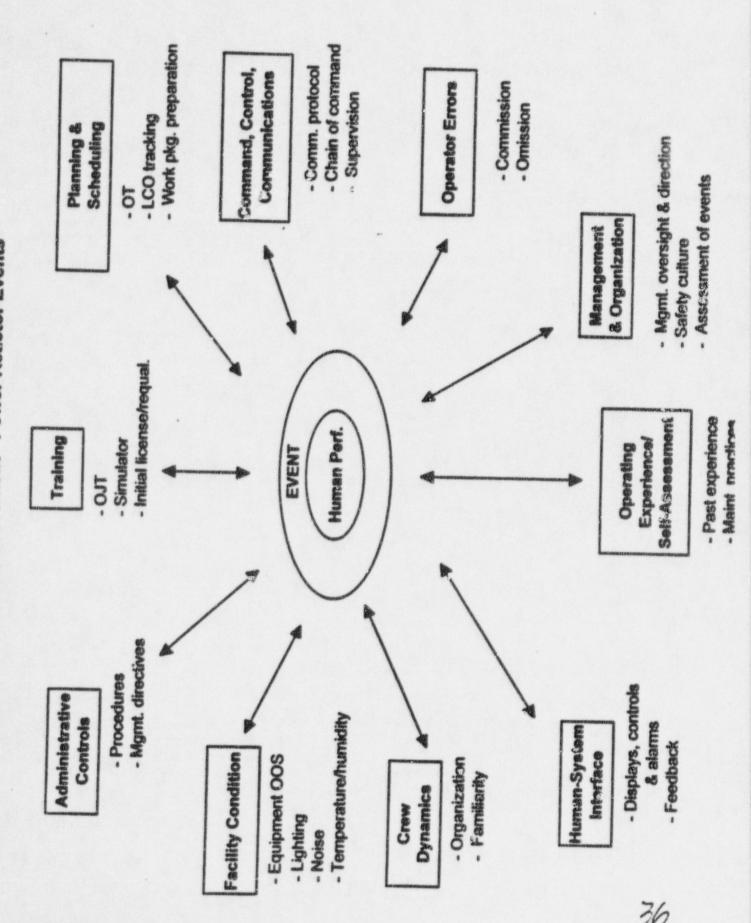


Fig. 1. Socio-technical Systems Perspective: Five Subsystems and their Interface

Human Performance Assessment - Power Reactor Events



GOAL

Assure that humans are considered in the design, operation and maintenance of nuclear facilities and systems.

Add. 1

Assure that human capabilities and limitations are considered in the design, operation and maintenance of nuclear facilities and systems

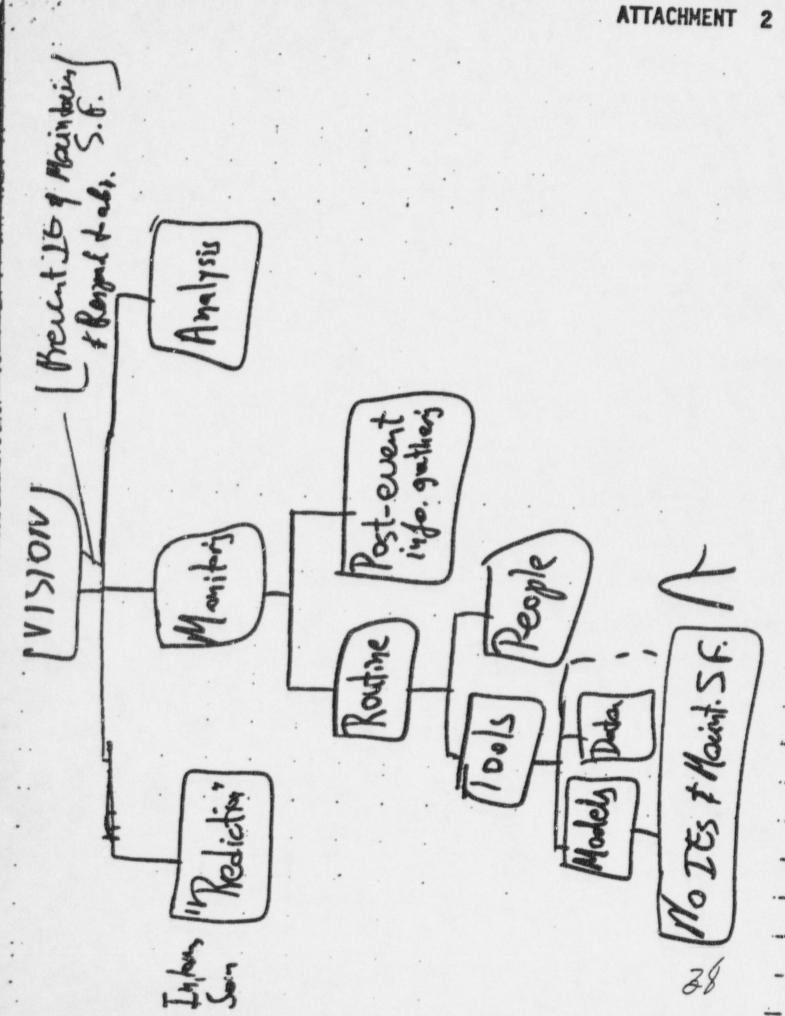
Add 2

Assure that human capabilities and limitations are considered in the design, operation and maintenance of nuclear facilities and systems so as to minimise the effects of human error on system performance

Prevent, Detect, Correct, Mitigate

VISION STATEMENT

To Understand and Foster Working Environments That Support
Safe and Effective Human Performance in all Facilities Which
Use Nuclear Materials



->PP->Barriers



NUCLEAR REGULATORY COMMISSION ADVISORY COMMITTEE ON REACTOR SAFEGUARDS WASHINGTON, D. C. 20685

FAX MESSAGE TO MR. T. ASAKAWA

Director, Office of Nuclear Safety Policy Research

Nuclear Safety Bureau, Science and Technology Agency

FAX NUMBER 81-3-3581-4855

Date: November 13, 1997

Dear Mr. Asakawa:

We have received a copy of your faxed message to Professor Birkhofer, which states that the Quadripartite Meeting will be postponed until April or September 1998. As we have a very heavy schedule in Spring 1998, we prefer a late August or early September 1998 date, to give us enough time to prepare properly for the meeting.

We have also received a copy of the letter sent to you by Professor Birkhofer and Monsieur Cogné, dated November 12, 1997. We agree with their suggested Agenda Items.

However, we have not yet received any fax from you concerning this meeting. Please note that our fax number is: (1) (301) 415-5589.

We look forward to receiving a proposed final date and agenda for the Quadripartite Meeting in the near future.

Sincerely,

Dr. John Larkins

uc: Dr. A. Birkhofer

GROUPE PERMANENT CHARGE DES RÉACTEURS NUCLÉAIRES

REAKTORSICHERHEIT KOMMISSION

GPR/97-66 November 42 %, 1997

> Mr ASAKAWA Director Office of Nuclear Safety Policy Research Nuclear Safety Bureau Science and Technology Agency 2-2-1, Kasumigaseki Chiyoda-ku - Tokyo 100 LAPAN

Deer Mr Asakewa

Thank you very much for your messages of October 20 and October 31, 1997. The French and German advisory committees agree in principle to hold the quadripartite meeting in April or September 1998. We are waiting for a more precess proposal from your side.

We propose a few modifications to the proposed agenda because we wish to discuss topics related to future nuclear power plants and to risks associated to shundown situations. The five plenary sessions

Safety of againg plants and steam generators operating experience Session 1

Sussion 2 Safety of future nuclear power plants

Session 3 Assessment of computerized systems

Session 4 Safety of high burn-up fuel and MOX Fuel behaviour under reactivity indipend accidents

Session 5 PSAs and risk-based regulations Risks tinked to shutdown states

A discussion between the French and the Japanese dvisory committees on FBR technical issues

Sincerely yours,

TOTAL PAGE (5) 81

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BMOEL

FACSIMILE MESSAGE NUCLEAR SAFETY COMMISSION, JAPAN

DATE: October 31, 1997

TO: Prof. Adolf Birkhofer

Geschaftsfuhrer, Geseillschaft fur Ahlagen - und Reaktorsicherheit mbH

TO: Dr. Francois COGNE

Chairman, Groupe Permanent charge des Reacteurs Nucleaires

TO: Dr. John T. Larkins

Executive Director, Advisory Committee on Reactor Safeguards

SUBJECT: The Quadripartite Meeting in Japan

FROM: I. ASAKAWA

Director, Office of Nuclear Safety Policy Research
Nuclear Safety Bureat: Science and Technology Agency
Address: 2-2-1, Kasutrigaseki, Chiyodaku, Tokyo 100, Japan
Fax: +81-3-3581-4856

This message consists of page including this sower page.
Please contact us if any of this message failes to reach you.

Dear Sir.

After the contact from Prof. Birkhofer, we reconsider the proposed date of the quadripartite, meeting. As the result it should be postponed the quadripartite meeting to after April 1998.

Public hearing for the installation of the nuclear power station is expected to be held in June. We hope to hold the quadripartite meeting in April or September 1998.

Sincerely, T. ASAKAWA