ATTACHMENT

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July 7, 1981
OG-61

Dr. Stephen H. Hanauer, Director
Division of Human Factors Safety
U.S. Nuclear Regulatory Commission
Phillips Building
7920 Norfolk Avenue
Bethesda, Maryland 20014

Dear Dr. Hanauer:

SUMMARY OF WESTINGHOUSE OWNERS GROUP PROGRAM
TO ADDRESS NUREG-0737, ITEM I.C.1

On June 18, 1981, representatives from utilities of the Westinghouse Owners Group (WOG) and Westinghouse met with members of the Nuclear Regulatory Commission Staff in Bethesda, Maryland. The purpose of the meeting was to advise members of the NRC staff of the additional features being proposed for inclusion in the Westinghouse Owners Group Procedures Development and Evaluation Program and progress made with existing elements of the original program since the last meeting with the NRC staff held on February 20, 1981. During the June 18 meeting, the issues raised in the NRC letter, D.G. Eisenhut to R.W. Jurgensen dated May 28, 1981, concerning the Westinghouse Owners Group Procedures Development and Evaluation Program were also addressed. The information contained herein relates directly to the items discussed during the June 18, 1981 meeting, and is submitted as formal documentation of that meeting for NRC review and evaluation purposes.

The basic objectives of the Westinghouse Owners Group Procedures Development and Evaluation Program are as follows:

- Provide a comprehensive and fully integrated set of emergency response guidelines, related background information, analytical bases, and training and application information;
- Provide all guideline information in a manner such that all utilities in the Westinghouse Owners Group can address not only the immediate requirements for plant transient/emergency procedure development and implementation, but also any longer term requirements in a consistent manner;
- Provide guidelines which assure operator preparedness for events within and beyond the design basis of the plant;
- Provide guidelines and related information such that generic and plant-specific submittals based upon the Westinghouse Owners Group Procedures Development and Evaluation Program results can be submitted and implemented in a manner which meets the requirements of Item I.C.1 of NUREG-0737.

The three-phase approach to emergency guideline development and evaluation which was discussed at the February 20, 1981 meeting, and which was described in our previous letter OG-54 (R. W. Jurgensen to S. H. Hanauer) of March 18, 1981, was intended to address Item I.C.1 and provide sufficient information to permit NRC staff concurrence with our judgement of its final acceptability. However, in ensuing communications with the staff it became obvious that certain aspects of the procedures evaluation and development tasks described in letter OG-54 would need to be supplemented or extended, or could benefit from an expanded definition of detail. Accordingly, the WOG, through its Procedures Subcommittee, initiated additional work efforts to further develop the procedural guideline program containing the elements necessary to fully address the issues identified by the NRC. Subsequent to our decision to implement this extended-feature Procedures Development and Evaluation Program, a letter was issued (D. G. Eisenhut to R. W. Jurgensen, May 28, 1981) formalizing NRC concerns and identifying the staff's perceptions of remaining open areas in the WOG program described in OG-54. After reviewing all salient issues in Item I.C.1 of NUREG-0737, and those additional issues identified in the letters of December 17, 1981 (S. H. Hanauer to R. Newton) and May 28, 1981, and comparing these issues to the elements of our extended-feature program described hereinafter, it is our belief that the outstanding issues have been addressed within this extended-feature program. Our intent in discussing the redefined program with the staff on June 18, 1981, was to delineate those program elements newly incorporated, and to provide sufficient detail concerning all program elements so that the staff could evaluate the entire WOG Procedures Development and Evaluation program, and its effectiveness in addressing the requirements of NUREG-0737, I.C.1. The following text and supporting attachments cover in detail the basic structure of our current program and describe its important elements.

LOGIC AND STRUCTURE OF EMERGENCY RECOVERY GUIDELINES

In the development of the comprehensive set of procedural guidance for plant emergency conditions which is described in this letter, consideration was given to the normal response patterns of a trained operator when confronted with a plant upset situation. The model of operator action upon which the development of the major program elements was predicated is shown in Figure 1. This figure displays the major operator decision points and responses to an alarm/upset condition, from onset of the condition to attainment of either plant recovery or a stable long-term core cooling condition. At the next level of detail, the diagram of Figure 2 delineates the response of the operator following actuation of the Engineered Safeguards System ("SI"). If the specific event can be classified, it is normal for the operator to use a defined set of procedural steps to effect plant recovery from the imposed condition. If no diagnosis is possible, the operator is trained to monitor certain critical safety functions which, as a set, will indicate overall plant safety status. If any safety function is challenged, the operator then uses defined contingency actions, which are formally related to the critical safety functions through an evaluation and identification scheme, to restore plant conditions to safe conditions. At the same time, the operator continues his attempts to diagnose the event; when this is accomplished

and all critical safety function challenges have been eliminated through use of the contingency actions, plant recovery can begin. Recovery of the plant can only be accomplished if the salient conditions relating to plant state (critical safety functions), plant integrity, and equipment status are known. Then, the operator can select the optimal path for plant recovery and carry it out.

To facilitate the maintenance of plant safety and permit plant recovery, a procedure structure which encompasses two distinct types of procedures has been defined. This overall procedural set is called the Emergency Response Guidelines (ERGs) and is composed of:

- Optimal Recovery Guidelines, and
- Critical Safety Function Restoration Guidelines and Status Trees.

The Optimal Recovery Guidelines provide guidance for the operator to recover the plant from nominal design basis faulted and upset conditions. The Critical Safety Function Restoration Guidelines, when used with the accompanying Critical Safety Function Status Trees, provide a systematic means for addressing any challenge to plant critical safety functions, which is entirely independent of initiating event or plant state. The availability of both types of procedural guidance permits the operator to respond to virtually any plant upset condition, including multiple failure conditions, and failures subsequent to initial diagnosis which could require additional operator action beyond that specified in the Optimal Recovery Guidelines for the nominal event trajectories which they cover.

The method by which the operator uses the ERGs is shown by logic diagram in Figure 3. This coordinated use of the ERGs provides a means of continuously monitoring the plant critical safety functions (through use of the status trees), permits optimal plant recovery (through use of the Optimal Recovery Guidelines), and directs systematic operator response to conditions outside the coverage area of the Optimal Recovery Guidelines (through use of contingencies and Critical Safety Function Restoration Guidelines).

If diagnosis of the event is possible, the operator proceeds with the recovery actions specified in the Optimal Recovery Guidelines until plant recovery is achieved. During recovery from a known event, the operator continually monitors the critical safety functions to assure continued plant safety. If a challenge to a critical safety function occurs during the recovery, the operator is directed by use of the Status Trees to specific contingency actions, designed to restore the challenged safety function(s) to safe values. Upon restoration of all critical safety functions to safe values, the plant condition is rediagnosed and the appropriate optimal recovery actions are taken.

If no diagnosis can be made immediately following the initiating event, the operator is directed through the Critical Safety Function Status Trees to the appropriate Critical Safety Function Restoration Guideline(s), in order to address the challenge to plant safety. Again, continuous monitoring of the critical safety functions through use of the status trees is maintained. At the same time, diagnosis of the event is being attempted, so that when the plant safety challenge is removed through operator response guided by the Critical Safety Function Restoration Guidelines, the plant may then be recovered by performing the appropriate Optimal Recovery Guideline steps.

The types of procedures which comprise both the Optimal Recovery Guideline set and the Critical Safety Function Restoration Guideline Set are described in Attachment 1. The specific guidelines which now appear in, or will be developed for, these two sets are also identified. Other advantages accrue from the use of the new guideline structure:

- The new structure makes maximum use of existing guidelines, in that the Optimal Recovery Guidelines and certain Critical Safety Function Restoration Guidelines have been developed previously by the WOG.

- Other procedures, subprocedures, or contingencies which have been identified as required can be included in the structure, as currently envisioned, without major impact on its proposed configuration. This will serve to minimize future impact on operator training.

The ERG structure as developed thus provides for optimal recovery of the plant during major identifiable emergency conditions; but it also permits the operator to maintain safe plant conditions for all other cases, including non-diagnosed events and for cases where multiple failures or subsequent failures limit the applicability of the pre-defined optimal recovery steps.

DETAILED DESCRIPTION OF PROGRAM ELEMENTS

In addition to the basic technical guidance for operator response contained in the ERGs, there are other elements of the WOG Procedures Development and Evaluation Program which are equally important. The five elements which comprise the overall program are:

- Optimal Recovery Guidelines (and Supporting Analysis)
- Critical Safety Function Status Trees
- Critical Safety Function Restoration Guidelines
- Example Guideline Format
- Probabilistic Risk Assessment-based Procedures Evaluation

Each element is, we believe, necessary for a complete procedures program which addresses all I.C.1 issues, furnishes adequate operator guidance to protect both the public safety and the owner's investment in his plant, and provides for an orderly and evolutionary development of the program in both technical and human factors areas. The salient features of all five program elements are described in the text which follows and in the attachments.

1. Optimal Recovery Guidelines

This data set and its utilization has been summarily described in the preceding section on the Logic and Structure of the Emergency Response Guidelines. The Optimal Recovery Guidelines provide the operator with guidance sufficient to effectively recover the plant from nominal emergency conditions and return it to a known safe state from which repair (if required) or return to power can be accomplished. Irrespective of the event-specific framework of these guidelines, numerous verification or action steps, intended to ensure the maintenance of all critical safety functions throughout the recovery, have been incorporated into them. While the critical safety functions have not been addressed in explicit fashion, as they are in the Critical Safety Function Status Trees and the Critical Safety Function Restoration Guidelines, their treatment within the event-specific framework of the Optimal Recovery Guidelines and contingencies has been shown though WCAP-9691 analyses to cover a substantial portion of the risk associated with nuclear power plant operation.

The Optimal Recovery Guidelines are the restructured analogues of the original Westinghouse Emergency Guidelines (E-0, E-1, E-2 and E-3) and certain of the original Westinghouse Abnormal Guidelines (A-1, A-4 and A-6). The technical basis of the Optimal Recovery Guidelines is identical to that for the analogous E-series or A-series guideline(s) from which they were derived. Therefore, a complete and documented analytical basis for each Optimal Recovery Guideline is available, as required by NUREG-0737 I.C.1.

The reformatting and internal restructuring of the E-series and A-series guidelines (to be described in detail in a succeeding section of the text) has been carried out to 1) facilitate transitions between guidelines; 2) provide immediate and clear guidance for situations in which verification of automatic actions or expected responses to manual actions are not obtained; and 3) to permit the later introduction of contingency guidance not yet developed, without severe retraining impact. These issues were identified by the NRC in previous communications as being among their major concerns with the original WOG Emergency Guidelines. With the construction of the larger procedures superstructure described previously, and the reformatting and subsumption of the original E-series and A-series guidelines into the Optimal Recovery Guidelines, it is believed that the procedures program as described herein has fully addressed these issues.

The Optimal Recovery Guideline Set is composed of three basic types of procedures:

- o Nominal Emergency/Upset Response (E-Series)
- o Event-specific subprocedures (ES-Series)
- o Generally applicable emergency contingency procedures (ECA-Series)

These three types of procedures are nested within the Optimal Recovery Guideline Set as shown in Attachment 1.

The identification of the event-related guidelines and contingencies which must be included in the Optimal Recovery Guideline Set is carried out through an evaluation of the PRA analysis results, as later described.

2. Critical Safety Function Status Trees

The Critical Safety Function Status Trees are a recently-introduced element of the WOG Procedures Development and Evaluation Program. These status trees provide the operator with a systematic and explicit means for determining the safety status of his plant for any emergency situation, irrespective of the specific guidance intended for this purpose which is also contained in the Optimal Recovery Guidelines. The status trees can be referenced by the operator at any time, and continuous use of these status trees provides independent verification of the attainment and maintenance of safe plant conditions throughout the recovery. This concurrent use of status trees and the appropriate Optimal Recovery Guidelines also provides a method for identifying the mode of critical safety function challenge independent of specific event diagnoses and nominal prescribed recovery actions. Therefore, use of the status trees in conjunction with the Optimal Recovery Guidelines provides a systematic way of identifying and coping with subsequent/multiple failure situations.

It is important to understand the limitations of the status trees and their conjugate Critical Safety Function Restoration Guidelines in providing procedural guidance for emergency situations. Since use of the status trees is wholly independent of initiating event or plant equipment status, their implementation together with a complete set of Critical Safety Function Restoration Guidelines would not necessarily be adequate to permit plant recovery from an emergency condition. The Status Trees and Critical Safety Function Restoration Guidelines must, therefore, be supplemented by a set of event-specific guidelines which can permit optimal plant recovery following event identification and determination of plant equipment status and plant state.

The structure of the Critical Safety Function Status Trees has been carefully chosen to be compatible with the existing basis for operator training, since the status trees provide an explicit tool to re-emphasize the necessity for the operator to be always aware of the state of his plant safety functions. An additional advantage derived from the introduction of the status tree concept directly into the procedures structure is that the operator is provided with a performance aid, displayed at all times to reinforce his training and assist his memory, particularly during high-stress situations typical of transient or emergency conditions.

The structure of the Critical Safety Function Status Trees has been chosen to permit subsequent development of the detailed aspects of interaction between the Optimal Recovery Guidelines, the Status Trees, and the Critical Safety Function Restoration Guidelines.

Attachment 2 to this letter provides a more detailed description of the use of Status Trees within the ERG structure. Included in this attachment are both color and line-pattern status trees for the selected set of Critical Safety Functions.

3. Critical Safety Function Restoration Guidelines

These guidelines are intended to describe general operator actions which could be effective in responding to challenges to the plant critical safety functions. These guidelines are normally entered via the Critical Safety Function Status Trees, although in certain cases it is possible to enter them directly from the Optimal Recovery Guidelines via identified transitions that account for specific contingencies. Therefore, these Critical Safety Function Restoration Guidelines provide guidance for maintaining the plant in a safe state without regard to initiating event or combinations of subsequent or consequential failures after event diagnosis.

The required Critical Safety Function Restoration Guidelines are identified by noting the specific mode of failure indicated at the terminus of each red, orange, or yellow branch on the "high-level" Critical Safety Function Status Trees (see Attachment 2). These high-level terminal failure modes are addressed through the creation of appropriate function restoration guidelines, which collect in each guideline for the operator's use the potential methods for response to identified failure modes. In each such guideline, it is expected that all available methods to respond to the identified failure modes will be noted, and their sequence of employment in mitigation or safety function restoration will be prioritized where applicable. Five essential categories of Critical Safety Function Restoration Guidelines are implied by the specific choice of Critical Safety Functions described in the previous section. These categories are:

1) Subcriticality (FS-series)

2) Inventory and Core Cooling (FI-series)

3) Pressure (FP-series)

4) Heat Removal (FH-series)

5) Containment Integrity (FC-series)

The Critical Safety Function Restoration Guidelines identified through use of the Critical Safety Function Set and Critical Safety Function Status Trees are listed on Table 1. Some of the Critical Safety Function Restoration Guidelines (or portions thereof) have been developed previously as part of the WOG program effort. These existing guidelines are noted with an arrow below the appropriate Critical Safety Function Restoration Guideline to which they relate on Table 1.

The E^2OI procedures (for Inadequate Core Cooling Conditions) which are related in the present structure to similar Critical Safety Function Restoration Guidelines have a substantial analytical background, in consonance with the requirements of NUREG-0737, I.C.1. The two existing ICC guidelines and their supporting analyses have been previously submitted to the NRC. The extent of the analysis required for the development of these two guidelines is thought to be far in excess of that required for development of the remaining Critical Safety Function Restoration Guidelines; however, the potential for interaction between these guidelines exists, and additional work to identify the final content of each guideline, not yet written, is required. Potential areas of incompatability between individual Critical Safety Function Restoration Guidelines have been addressed in part by the requirement for hierarchial application of the Critical Safety Function Status Trees.

The strictly limited set of five Critical Safety Functions chosen results in a requirement for 14 distinct Critical Safety Function Restoration Guidelines. Of these 14, four (or portions of these four) are currently found in the existing WOG procedures set. The total set of 14 Critical Safety Function Restoration Guidelines will be contained in a guideline volume separate from the Optimal Recovery Guidelines. In the great majority of cases, the operator can expect to recover the plant using only the Optimal Recovery Guidelines. However, the availability of the Critical Safety Function Restoration Guidelines provides additional guidance for situations where diagnosis cannot be made, or where subsequent/multiple failures make it impossible to recover the plant by use of the Optimal Recovery Guidelines alone.

Another issue arising from the requirement for coordinated use of event-specific guidelines and safety function restoration guidelines is the general necessity for ultimate reversion to the Optimal Recovery Guidelines in order to fully recover the plant. In the development of the Critical Safety Function Restoration Guideline Set, this issue must be addressed through the provision of steps in each guideline which serve to return the operator to the overall event diagnosis after all Critical Safety Function challenges have been satisfactorily dealt with. It is expected that the selection of a final format for the Critical Safety Function Restoration Guidelines will be driven in part by the need to return the operator to the Optimal Recovery Guidelines for final plant recovery.

Development of the Critical Safety Function Restoration Guidelines will be carried out using a phased approach; the guidelines required to provide operator guidance in RED situations will be developed first; following these, the ORANGE and then YELLOW situation guidelines are to be developed in sequence. The existing Inadequate Core Cooling guidelines both address RED terminals on the Status Trees. The WOG has developed and is currently reviewing a guideline which deals with the ATWS scenario; this too, addresses a RED terminal on the Status Trees. Further details of the overall plan and schedule to develop the remaining Critical Safety Function Restoration Guidelines are contained in the summary section.

4. Example Guideline Format

The reformatting of the Emergency Operating Instruction guidelines was identified as part of the original WOG program plan to address NUREG-0737 I.C.1. This reformatting was undertaken to address NRC concerns with transitions to the ICC guidelines, and to lessen the training impact imposed by subsequent addition of contingencies which had been identified through application of event tree methodology, but would not be developed until the latter part of 1981 or early 1982. In OG-54, this reformatting task was identified as the EOI/E^{2}OI Upgrade.

With the recent reconstitution of the program described in OG-54 to include the five basic elements described in this letter, no change to the major reformatting objectives noted above was necessary. Additional objectives were also set for the revised reformatting task, based upon the evaluation of recent NRC Contractor Reports and Draft Regulatory Guides. It was decided to adopt an example format as the vehicle for further guideline development, and a two-column dual-level format was selected. This format is currently undergoing review by the WOG Procedures Subcommittee, and a final decision on its acceptance as the official format for further WOG guideline development is pending.

However, it is anticipated that the final format selected will not differ substantially from the one shown to the Staff at our June 18, 1981 meeting, and in which the revised version of E-0 (marked PRELIMINARY) is submitted (Attachment 3). The selection of a specific format for the ERGs is not intended to imply that each licensee must use this format in development of his plant-specific procedures. Rather, the selected format is intended to serve as a precept for the plant-specific procedures, in that it illustrates methods for: 1) guiding the operator when verification of manual or automatic actions cannot be obtained; 2) providing smooth transitions between guidelines and contingencies; 3) minimizing the impact of adding new contingencies to an existing procedure set; and 4) creating plant specific procedures which adhere to accepted human factors concepts in facilitating clear understanding and transfer of information under stress conditions.

The publication of the ERGs in a simplified and consistent format will also enhance their usefulness as a training tool. The technical basis of the guidelines should also be more easily understood and carried over to individual plant procedures through the utilization of the new format. The reformatting of all the Optimal Recovery Guidelines is currently underway, and it is intended to provide a full set of these guidelines plus their applicable background information to the NRC for review in October 1981. We believe that the example format which we have developed is easily adaptable for individual utilities, to suit their final selection of format for plant-specific procedures.

An additional but very important feature of the new guideline format is the presence of a fold-out last page in each Optimal Recovery Guideline or contingency, which provides an effective mechanism for facilitation of continuous re-evaluation of plant conditions during a response to an emergency situation. This fold-out page (termed the "apron") provides at all times a ready reference to the operator for the important criteria pertaining to the safety status of the plant during the recovery. It also provides direct contingency entry conditions, and is easily adaptable to permit direct access to the Critical Safety Function Restoration Guidelines. This access can be facilitated by ensuring that all RED or ORANGE status tree branch symptoms are placed on the apron for the operator's reference during his use of the Optimal Recovery Guidelines.

The use of the example guideline format to facilitate transitions, provide guidance in case of lack of verification of action response, and to exhibit appropriate action criteria such as RCP Trip Criteria or SI Termination Criteria is shown in the E-0 guideline submitted with this letter. Future modifications to existing guideline contingencies, or development of new contingencies, will obviously cause less of an impact on the structure and flow of guidelines written in the new two-column format, than if new contingencies had to be incorporated in guidelines written in the older format. Contingency procedures will be generally referenced from the right hand column, thereby eliminating nearly all changes in the left hand column (which contains the sequential action steps) from modifications to contingency actions or the addition of new guidelines.

Another major concern, that of minimizing training impact resulting from future changes, has also been taken into consideration in the choice of guideline format. The essential structure of the former E-series guidelines has been retained in the new ERG super-structure. The technical content of the reformatted guidelines remains the same as that of their precursors (the Rev. 2 issue of the WOG EOI Guidelines). Since the WOG E-series guidelines have been the basis for operator training in the past, the procedures development and training personnel who use the reconstituted guideline set described herein will find that major portions of the set are familiar. The need for "relearning" existing guidelines due to changes in the future should also be virtually eliminated, since only minor modifications to right hand column entries will be necessary to permit subsequent introduction of new contingencies as described before.

While many human factors considerations apply only to the plant-specific procedures developed from these guidelines, an effort to incorporate certain improvements over previous versions of the guidelines was made in this area. The dual-level presentation selected for the left hand column, with the high-level action steps emphasized (and with all detailed action steps also shown but in a less emphatic manner)

serves as an example of what can be done with plant-specific procedures to permit their effective use by both experienced and relatively inexperienced personnel. Sufficient detail is retained to assure complete and correct performance of the required steps even under high-stress situations by both classes of operators. The individual steps in each guideline using the example format are greatly simplified with respect to the former guidelines, with standardization of acronyms, action verbs, etc., elimination of extraneous information, and limitations to the number of required actions per numbered step. Other standard human factors concepts such as identification of the final page of a guideline were also included as part of the reformatting task.

The generalized groundrules for application of the new format are given in Attachment 3. The content of left and right hand columns and the treatment of cautions and notes are also described in Attachment 3.

The reformatting of all the Optimal Recovery Guidelines is currently underway and it is intended to provide a full set of these guidelines plus their applicable background information to the NRC for review in October 1981. We beleive that the example format which we have developed is easily adaptable for individual utilities, to suit their final selection of format for plant-specific procedures.

5. Probabilistic Risk Assessment-based Evaluation of Procedural Coverage

In March 1980 the Westinghouse Owners Group submitted WCAP-9691 to the NRC to address the requirement that evaluation of procedures with respect to their applicability for multiple/sequential failure coverage be carried out. In our February 20, 1981 meeting, the use of such Probabilistic Risk Assessment (PRA)-based techniques was further described, and their applications in procedural coverage evaluation, identification of the need for further procedures development, and prioritization of such development were discussed.

A functional failure probability value of 10^{-8} was proposed in the February 20 meeting as the cut-off limit for identifying functional failure sequences for the LOCA, Secondary Line Break, and Steam Generator Tube Rupture events for which no further procedure development was required. A preliminary justification of this limit, together with preliminary evaluations for each major event sequence covered in WCAP-9691 was presented to the NRC in OG-54. A commitment to perform a relative risk evaluation to provide final justification for the selected cut-off value was also made at that time, and this justification is provided in Attachment 4. Also presented in Attachment 4 are the final procedural coverage tables for the WCAP-9691 event trees, which clearly delineate for each tree those sequences for which additional procedure development effort is required. The summary listing accompanying these sequence coverage tables shows that the total number of sequences for which guideline coverage is warranted is 73, out of a total of 115 potential sequences in all trees.

Since WCAP-9691 utilizes an event-specific framework as the basis for its functional failure evaluations, the additional procedural coverage required will generally be provided through the addition of contingencies or subprocedures in the (event-specific) Optimal Recovery Guideline Set of the ERGs. Additionally, where contingencies required for full procedural coverage are identified and developed, these will be inserted into the ERG set in the appropriate place. In certain cases, only slight modifications to existing guidelines may be needed to extend procedural coverage to the identified cut-off value. Regardless of the risk/probability basis used in defining the required extent of the Optimal Recovery Guideline Set, assurance that the residual risk sequences will be fully covered is provided by the provision of Critical Safety Function Restoration Guidelines and Status Trees in the ERG superstructure.

A full review of the application of PRA methodology to the WOG Procedures Development and Evaluation Program will be contained in a separate submittal, which in our present program we plan to submit in mid-1982. However, the essential arguments leading to final selection of the cut-off probability limit of 10^{-8} is provided in Attachment 4 to permit timely NRC evaluation of the overall applicability and adequacy of the entire program.

SUMMARY AND PROPOSED SCHEDULE

The overall structure and important elements of the WOG Procedures Development and Evaluation Program have been described in the preceding text. Accepting this description as a basis, it is useful to assess the program with respect to the requirements of NUREG-0737 Item I.C.1. The results of this assessment are contained in Table 2, together with comparisons of various other issues related to generic guideline development raised outside the specific requirements of I.C.1, and our evaluation of how the current program can address these additional issues. As the assessment demonstrates, the WOG Procedures Development and Evaluation Program described herein meets the requirements of I.C.1, and also successfully addresses the other issues formally identified by the NRC and relating to our guideline development program and activities.

The proposed implementation schedule for the numerous complex activities which form the complete program is given in Table 3. As now conceived, this schedule anticipates final completion of all generic Owners Group procedures program work necessary to address the requirements of NUREG-0737 I.C.1 by October 20, 1981, the date upon which we plan to submit this detailed material to the staff. By this date, the material will also have been formally presented to Westinghouse operating utilities through the medium of an Emergency Response Guideline Seminar. Those parts of the program scheduled for completion in mid-1982 are consistent with the NRC's long-range program for guideline development.

Based upon your concurrence with the conceptual development of this program, resulting from our discussions during the meeting of June 18, 1981, the Westinghouse Owner's Group has made the necessary arrangements for continuation of the immediate efforts necessary to maintain the proposed schedule. However, we cannot commit the very substantial resources required to complete all program tasks without receiving your formal acknowledgement of its acceptability. Consistent with our commitments set forth in this letter, and with the imminent implementation of procedures to meet I.C.1 requirements, we request that you provide us with a response as soon as possible. A response received later than August 1, 1981 will be reflected in the fact that we will be unable to complete our program on the stated schedule.

Very truly yours,

Robert W. Jurgensen, Chairman
Westinghouse Owners Group