

Amend 10
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CURTISS-WRIGHT CORPORATION
RESEARCH DIVISION
Quehanna, Pennsylvania

February 24, 1959

To: G.A. Anderson
C.T. Clayton
W.J. Roberts
J.W. Sausville
R.A. Loos
P.R. Liller
M.T. Beam
E.J. Criscuoli

All Division Chiefs, and All Engineers and Scientists of the Nuclear Sciences and Engineering Department

Subject: Minutes of Nuclear Hazards Committee Meeting of February 23, 1959.

The Nuclear Hazards Committee of the Nuclear Sciences and Engineering Department met February 23, 1959. The following members were present:

- N.R. Wheelock, Chairman - Accountability Officer, specializes in criticality
- P.R. Liller - 8 years experience in reactor work including operation.
- M.T. Beam - 13 years Health Physics experience.
- R.A. Loos - Ex-officio
- J.W. Sausville - Ex-professor - U of Cincinnati - radiochemistry and beryllium work
- W.J. Roberts - Physicist 1 1/2 years ORNL and 3 1/2 years Curtiss-Wright.
- C.T. Clayton - 2 1/2 yrs Chief Nuclear Task Force 3. 2 1/2 years nuclear work, Curtiss-Wright

Rules of Committee Procedure which were discussed during the meeting of February 5, 1959 were adopted by the committee. A copy of these rules is attached.

A Procedure for Obtaining Approval of Proposed Operations Involving Hazardous Material was approved by the committee. A copy of this procedure, identified as Nuclear Hazards Committee Procedure No. 1, is also attached.

The meeting was adjourned.

Norman R. Wheelock
Norman R. Wheelock, Chairman
Nuclear Hazards Committee

- Attachment 1. Rules of Committee Procedure
- Attachment 2. Nuclear Hazards Committee Procedure No. 1

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CURTISS-WRIGHT CORPORATION
RESEARCH DIVISION
Quashanna, Pennsylvania

Nuclear Hazards Committee
Procedure No. 1

February 23, 1959

PROCEDURE FOR OBTAINING APPROVAL OF PROPOSED OPERATIONS
INVOLVING HAZARDOUS MATERIALS

1. Additions or amendments to procedures for handling, storage and shipment of hazardous materials may be proposed by committee members as a result of (1) personal observation of potentially dangerous practices in the line of their regular duties, (2) requests by Project Leaders or Division Chiefs, or (3) requests by any employee who has reason to believe that health or property is endangered by current operating procedures.
2. Depending on the urgency of the need for committee action on the matter, the member who desires to propose additions or changes in operating procedures will contact the chairman of the Nuclear Hazards Committee and request either (1) a special meeting of the committee to consider the question, (2) an interim approval of a change in procedure, as described in paragraph 5, below, or (3) scheduling of consideration of the question at a specified regular meeting of the committee.
3. Project Leaders or Division Chiefs planning operations which involve hazardous materials and which are not covered by existing approved procedures, shall prepare written statements describing the proposed operation and the procedure by which they plan to conduct it. This statement shall include at least the following information:
 - (a) A general description of the operation proposed.
 - (b) A statement concerning the place at which it will be carried out.
 - (c) A description of the hazardous material involved, to include the quantity and the chemical and physical form of material to be received, in process, stored, and shipped.
 - (d) A description of the training and experience of operating personnel in handling the type of material involved.
 - (e) A statement of opinion of the Project Leader or Division Chief as to whether he believes the operation will require monitoring or protective equipment, i.e., equipment not ordinarily employed while processing stable, non-toxic material.

If in the opinion of the Project Leader filing the statement monitoring or protective equipment will be required, the statement shall also include:

- (f) A list of protective equipment which will be used to assure the health and safety of personnel and the prevention of property damage.

19382

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- (g) Detailed procedures to be followed, especially those aimed at safeguarding health and property, at each stage in the processing.
 - (h) Procedures for storage and shipment of raw material, material in process, and finished goods.
 - (i) Procedures for disposal of waste or scrap which contains hazardous material.
 - (j) Procedures to prevent the loss or diversion of material to unauthorized uses.
 - (k) An estimate of the quantity of material which will be consumed and/or the quantity which will be lost through unavoidable processing losses.
 - (l) Reports which will be submitted to enable records to be kept showing the receipt, processing, consumption, loss, and shipment of accountable materials.
 - (m) Emergency procedures, to include plans for evacuation, determining extent of damage, placement of emergency protective and survey equipment, and drills to familiarize personnel with emergency procedures.
4. The statement described in paragraph 3, above, shall be submitted to the Health Physics Officer, who shall assess the hazards and protective measures detailed, and approve operations known by him to be safe and within the scope of established approved procedures. If he is unable to reach an agreement with the Project Leader on the procedures and protective measures required, or if he believes the problem should be considered by other members of the committee, he shall forward it to the committee chairman with a request for one of the three lines of action specified in paragraph 2, above.
5. If a special meeting or an interim approval is requested, the committee chairman shall bring the question to the attention of a subcommittee consisting of the Health Physics Officer, the Manager or Assistant Manager of the Nuclear Sciences and Engineering Department, and the committee chairman. This subcommittee shall determine whether a special meeting of the Nuclear Hazards Committee shall be called. If the proposed operation does not involve the shipment of hazardous material off site, the use, consumption, or loss of material which must be approved by the state or federal government, or hazard of accidental criticality, this subcommittee may, by unanimous agreement only, grant an interim approval for conduct of the proposed operation which will be valid until the question is acted upon at the next regular meeting of the Nuclear Hazards Committee.
6. If the proposed operation does involve the shipment of hazardous material off site, the use, consumption or loss of material which is controlled by the government, or hazard of accidental criticality, or if the subcommittee specified in paragraph 5, above, is not unanimous in their agreement to grant an interim approval, the subcommittee shall either (1) request a

special meeting of the Nuclear Hazards Committee for consideration of the question, or (2) postpone consideration of the question until a specified future regular meeting of the committee.

7. If the Project Leader and the Division Chief responsible for an operation do not believe the decision of the subcommittee to be satisfactory from the standpoint of efficient operation, they may appeal to the Manager of the Nuclear Sciences and Engineering Department for immediate action on the question.
8. Project Leaders and Division Chiefs shall not embark on operations involving hazardous materials which are not covered by existing procedures until they have obtained either (1) approval by the Nuclear Hazards Committee by the procedure described in paragraph 4, above, (2) an interim approval by the subcommittee specified in paragraph 5, above.

Procedure Approved by Nuclear Hazards Committee
February 23, 1959

Norman R. Wheelock

Norman R. Wheelock, Chairman

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FOR DIV. OF INSP.

19362

CURTISS-WRIGHT CORPORATION
RESEARCH DIVISION
Quakertown, Pennsylvania

Nuclear Sciences and Engineering Department
Nuclear Hazards Committee

RULES OF COMMITTEE PROCEDURE

Foreword

The Nuclear Hazards Committee shall exercise necessary control over operations involving hazardous material to prevent the occurrence of foreseeable incidents which could (1) endanger the health and safety of personnel, (2) cause unnecessary loss or damage of property, or (3) violate legal requirements for the use and disposition of material.

The term "hazardous materials" shall be interpreted to include the following materials:

- (1) Radioactive Material
- (2) Material subject to licensing by the AEC, to include:
 - (a) By-product material; material yielded in or made radioactive by the production or utilization of special nuclear material.
 - (b) Source material; uranium and thorium.
 - (c) Special nuclear material; plutonium, uranium 233, uranium 235, and/or material artificially enriched in these materials.
- (3) Beryllium and beryllium compounds.

Notification will be issued if other materials are added to the above list at a later date.

Project Leaders shall continue to be responsible for safety in operations under their control. However, before new operations with hazardous materials are initiated, Project Leaders shall obtain approval of proposed procedures for handling, storage, and shipment of the material through the Health Physics Officer, in accordance with procedures adopted by the committee.

Rules of Procedure

1. The Nuclear Hazards Committee shall meet regularly once each month, on or about the 15th day of the month, at a time and place which will be announced by the committee chairman.

DUPLICATED

FOR DIV. OF INSP.

19362

2. Committee members who desire to schedule specific questions for discussion at a regular meeting shall notify the committee chairman in writing, not later than the 10th day of the month, of the question which they desire to bring up for discussion.
3. The committee chairman shall publish an agenda of questions for discussion at the regular meeting, not later than 48 hours before the meeting.
4. A quorum shall consist of at least four members, to include the Health Physics Representative and any other member whose specialized knowledge is needed to appraise the adequacy of measures adopted.
5. Questions of committee procedure not covered by these rules shall be decided according to Roberts Rules of Order.
6. Questions before the committee shall be decided by vote of the members present, the concurrence of a majority of those present being required for approval, except that: (1) no question requiring specialized knowledge shall be decided unless the member who is qualified by training and experience in that field is present and concurs; and (2) no member whose regular duties include responsibility for performance on a specific project shall be entitled to a vote on committee decisions relating to that project. The committee chairman shall vote on any question which concerns a field in which he has specialized training and experience, and on any other question in which his vote is necessary to break a deadlock.
7. Division Chiefs and Project Leaders shall be permitted to appear before the committee to answer questions raised by the committee.
8. Members having specialized knowledge, and the fields in which their concurrence is necessary for approval of a question, are as follows:

Health Physics Member;

Protection of personnel against ionizing radiation.
Procedures to prevent the spread of contamination by
radioactive or toxic material.
Decontamination procedures.

Physics Member;

Criticality hazards.
Shielding requirements.

SS Material Accountability Member;

Authorized uses of source and special nuclear material.
Records and reports of use and consumption of SS material.

9. The chairman of the Nuclear Hazards Committee shall arrange for the publication and distribution of written minutes of committee meetings to all committee members, the Supervisor of Safety for the Research Division, all Division Chiefs, and Project Leaders responsible for operations directly affected by decisions of the committee.

10. Special meetings of the Nuclear Hazards Committee shall be called by the chairman at the request of (1) the Manager of the Nuclear Sciences and Engineering Department; (2) a subcommittee consisting of the Health Physics Member, the Assistant Manager of the Nuclear Sciences and Engineering Department, and the chairman of the Nuclear Hazards Committee; or (3) any four committee members. The questions to be considered at the special meeting shall be specified when the meeting is called.

11. Rules of Committee Procedure shall be amended as follows:

- (a) Notice of intention to propose changes in committee procedural rules, and the substance of the proposed changes, shall be given to committee members at least 48 hours before the meeting in which they are proposed.
- (b) The question of rules changes shall be opened for discussion at the meeting in which consideration of proposed changes is first scheduled, but they shall not be called to a vote at that meeting.
- (c) The question of proposed rules changes shall be reopened at the next regular meeting of the committee. At that time final amendments to the motion to amend rules shall be considered, provided that the subject of such amendments is directly related to the original motion. The motion to amend rules may then be brought to a vote.
- (d) Amendment of rules of committee procedure shall require the concurrence of at least two-thirds of the total membership of the committee including the chairman. The chairman shall be entitled to vote on all proposed amendments to rules of committee procedure.

Approved by: G. T. Clayton
W. J. Roberts
J. W. Sausville
R. A. Loos
P. R. Liller
M. T. Beam
N. R. Wheelock

February 23, 1959

Norman R. Wheelock
Norman R. Wheelock, Chairman
Nuclear Hazards Committee